



MONASH University

# Adapting Photovoice to Visualise and Influence Environmental Behaviour across Australia, Bangladesh, and China

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B.Sc B.A B.FA M.Ed

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(Department of Design, in Faculty of Art, Design and Architecture)

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# Abstract

This practice-based enquiry explores how photovoice can be adapted to visualise and influence environmental behaviour in a multi-sited context. While photography can be effective in influencing environmental behaviour change, mainstream images tend to lack engaging narratives due to being predominantly generic and technology focussed.

Participatory photography methods such as photovoice offer alternatives through engaging communities directly to generate site-responsive photographs and stories. However, this exclusively local focus can neglect broader opportunities for empathy and cross-cultural engagement. I respond by integrating multi-sited dimensions into photovoice processes, through a design-based participatory action research approach that explores three interrelated research orientations – *adapt, visualise, and influence* – corresponding to the *creation, analysis* and audience *engagement* with photo-stories respectively.

I first develop novel multi-sited photovoice design and implementation methods across different scales through adapting participatory workshop processes with youth in urban sites across Bangladesh, China and Australia. I then analyse the visualisations of environmental behaviour depicted in the resulting photo-stories, affirming these methods' efficacy and inviting expanded considerations of agency and subjectivity in environmental behaviour. Finally, I explore the influence of the photo-stories themselves on environmental behaviour through designing unique participatory audience engagement processes within exhibition, interview and collaborative formats. I employ a mixed-methods approach encompassing qualitative content analysis and actor network theory across these three research orientations to affirm the importance of materiality, relationality and empathy to participation and visualisation of environmental behaviour.

This enquiry establishes an original *open photovoice* method encompassing these combined novel creation and audience engagement practices. This affirms the importance of bringing global perspectives to local photovoice practices, contributing to research in visual research methods. These learnings have the potential to significantly improve the effectiveness of multi-sited participatory action research and environmental behaviour change programs.

## Keywords:

photovoice, participatory action research, visual research methods, environmental behaviour, multi-sited ethnography, actor network theory

# Declaration

This thesis is an original work of my research and contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

Michael Chew

Date: 13/4/2020

# List of publications during candidature

Chew, M. (2020). Portraits of Change: Photo-Storytelling Across Bangladesh, China and Australia. *Swampden: a Journal of Cultural Ecology (ASLEC-ANZ)*, 7, 83-100.

Chew, M., Maheshwari, B., & Somerville, M. (2019). Photovoice for understanding groundwater management issues and challenges of villagers in Rajasthan, India. *Groundwater for Sustainable Development*, 8, 134-143.

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Chew, M. (2016). Portraits of Change: Glimpses Of Community Through A Multi-Country Climate ‘Photovoice’ Project *Eingana – Journal of Environmental Education*, 39, 23-28.

Chew, M. (2015). Cracks in a paved mirror: the eco-phenomenological dimensions of contemporary urbanisation in Asia. *Spaces and Flows: An International Journal of Urban and ExtraUrban Studies*, 6(3), 51-64.

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# Table of Contents

<b>ABSTRACT .....</b>	<b>2</b>
<b>DECLARATION .....</b>	<b>3</b>
<b>LIST OF PUBLICATIONS DURING CANDIDATURE.....</b>	<b>4</b>
<b>ACKNOWLEDGEMENTS.....</b>	<b>5</b>
<b>TABLE OF CONTENTS .....</b>	<b>7</b>
<b>PERSONAL FOREWORD .....</b>	<b>13</b>
<b>DEFINITIONS.....</b>	<b>14</b>
<b>LIST OF FIGURES.....</b>	<b>16</b>
<b>LIST OF TABLES.....</b>	<b>20</b>
<b>PROLOGUE .....</b>	<b>21</b>
<b>CHAPTER 1 - INTRODUCTION.....</b>	<b>23</b>
1.1 RESEARCH JUSTIFICATION.....	23
1.1.1 <i>Environmental and representational crises</i> .....	23
1.1.2 <i>Photovoice research context</i> .....	24
1.2 RESEARCH - FRAMING.....	25
1.2.1 <i>Research orientations and questions</i> .....	25
1.2.2 <i>Research practices</i> .....	26
1.2.3 <i>Methodology and methods</i> .....	27
1.2.4 <i>Data collection</i> .....	28
1.2.5 <i>Data analysis</i> .....	28
1.3 SCOPE AND LIMITATIONS .....	29
1.3.1 <i>Geography - Australia, Bangladesh, China</i> .....	29
1.3.2 <i>Spatial scales and local partners</i> .....	30
1.3.3 <i>Temporal scales</i> .....	31
1.3.4 <i>Youth participation and ethics</i> .....	32
1.3.5 <i>Research Contributions</i> .....	33
1.3.6 <i>Limitations</i> .....	33
1.4 EXEGESIS STRUCTURE, NAVIGATION AND VOICE.....	34
1.5 CHAPTER SUMMARY .....	35
<b>CHAPTER 2 - LITERATURE REVIEW .....</b>	<b>37</b>
2.1 PART A - VISUALISING ENVIRONMENTAL BEHAVIOUR .....	38
2.1.1 <i>Introduction</i> .....	38
2.1.2 <i>Situating environmental behaviour</i> .....	38
2.1.2.1 <i>Rationale, definition and context</i> .....	38
2.1.2.2 <i>Theoretical approaches to environmental behaviour</i> .....	40
2.1.2.3 <i>Psychological barriers to environmental behaviour</i> .....	43
2.1.3 <i>Environmental visualisation and photography - why seeing matters</i> .....	44
2.1.4 <i>Limitations with environmental photography</i> .....	45
2.1.4.1 <i>Media</i> .....	45
2.1.4.2 <i>Non-government organisations</i> .....	45
2.1.4.3 <i>Advertising and Marketing</i> .....	47
2.1.4.4 <i>Art</i> .....	47
2.1.5 <i>Emotions in environmental photography</i> .....	48
2.1.5.1 <i>Fear</i> .....	48
2.1.5.2 <i>Hope</i> .....	49
2.1.6 <i>Summary</i> .....	51
2.2 PART B - MULTI-SITED ENVIRONMENTAL PHOTOVOICE .....	53
2.2.1 <i>Introduction</i> .....	53

2.2.2	<i>Photovoice</i> .....	53
2.2.2.1	Theoretical background and context.....	53
2.2.2.2	Environmental photovoice – learnings and opportunities.....	55
2.2.2.2.1	Environmental photovoice case studies.....	56
2.2.3	<i>Multi-site ethnography</i> .....	59
2.2.4	<i>Multi-sited photovoice</i> .....	61
2.2.4.1.1	Environmental and Climate Justice .....	61
2.2.4.1.2	Geographic limitations of media and behaviour change research.....	62
2.2.4.1.3	Empathy .....	63
2.2.5	<i>Summary</i> .....	64
<b>CHAPTER 3 - METHODOLOGY AND METHODS .....</b>		<b>66</b>
3.1	INTRODUCTION .....	66
3.1.1	<i>Research positions: methodology and themes</i> .....	67
3.1.1.1	Multi-sited, design-based participatory action research.....	67
3.1.1.2	Environmental humanities and social sciences.....	68
3.2	METHODOLOGICAL APPROACH - PARTICIPATORY ACTION RESEARCH .....	69
3.2.1.1	Historical context.....	70
3.2.1.2	Epistemological orientations.....	71
3.2.1.3	PAR Cycles.....	72
3.3	DATA COLLECTION METHODS .....	74
3.3.1	<i>Photovoice</i> .....	74
3.3.2	<i>The photovoice process</i> .....	75
3.3.2.1	Photovoice aims.....	75
3.3.2.2	Photovoice activities .....	76
3.3.2.3	Recruitment.....	77
3.3.2.4	Participation.....	77
3.3.2.5	Cameras.....	78
3.3.2.6	Participant training.....	79
3.3.2.7	Data analysis .....	80
3.3.2.8	Photo-elicitation .....	80
3.3.2.9	Photovoice, social media and mobile devices.....	82
3.3.2.10	Exhibitions.....	82
3.3.3	<i>Ethical considerations</i> .....	83
3.3.3.1	Ethics and ‘failure’ .....	85
3.3.4	<i>Design process data collection methods</i> .....	86
3.3.4.1	Design workshop .....	87
3.3.4.2	General reflective and evaluative practices.....	88
3.3.4.3	Reflexive researcher practices .....	89
3.3.4.4	Process mapping .....	89
3.4	ADAPTED METHODS .....	90
3.4.1	<i>Spatial and temporal levels</i> .....	90
3.4.1.1	Spatial levels .....	91
3.4.1.2	Temporal levels .....	91
3.4.1.3	Organisation of spatio-temporal levels .....	91
3.4.2	<i>Program-level design methods</i> .....	94
3.4.2.1	Photovoice program-level design.....	94
3.4.2.2	Design figurations.....	94
3.4.2.2.1	Meshwork/networks .....	94
3.4.2.2.2	Programs/experiments .....	95
3.4.2.3	Researcher Positionality .....	95
3.4.3	<i>Site-level design</i> .....	96
3.4.3.1	Site selection .....	96
3.4.3.1.1	Divergence – economic, environmental, cultural .....	97
3.4.3.2	Convergence - cities and partners .....	99
3.4.4	<i>Local partner engagement</i> .....	99
3.5	DATA ANALYSIS METHODS .....	101
3.5.1	<i>Contact zone and mixed methods</i> .....	101
3.5.2	<i>Realist approach</i> .....	102
3.5.2.1	Qualitative Content Analysis (QCA) .....	103
3.5.3	<i>Relational materialist approach</i> .....	103
3.5.3.1	Actor network theory (ANT).....	104
3.5.3.2	Mixed-methods approach .....	105

3.5.4	<i>Participation</i> .....	105
3.5.4.1	Realist 'typographic' approach .....	105
3.5.4.2	Relational approach.....	106
3.5.5	<i>Research Design</i> .....	107
3.5.5.1	Program Logic versus Emergent behaviour.....	107
3.6	SUMMARY.....	108
<b>OUTLINE OF FINDINGS CHAPTERS .....</b>		<b>109</b>
<b>CHAPTER 4: FINDINGS A - DESIGNING MULTI-SITED PHOTOVOICE.....</b>		<b>111</b>
4.1	INTRODUCTION .....	111
4.2	PROGRAM-LEVEL FINDINGS .....	111
4.2.1	<i>Program structure</i> .....	111
4.2.2	<i>Program orientations</i> .....	114
4.2.3	<i>Design figurations</i> .....	115
4.2.4	<i>Multi-sited photovoice program model</i> .....	118
4.2.5	<i>Researcher positionality</i> .....	122
4.2.5.1	Westerner-Outsider.....	122
4.2.5.2	(Co-)Designer .....	123
4.2.5.3	(Co-)Facilitator.....	123
4.2.5.4	Curator.....	124
4.2.5.5	Researcher .....	125
4.3	SITE-LEVEL DESIGN .....	125
4.3.1	<i>Partner engagement</i> .....	126
4.3.2	<i>Partner relationships</i> .....	129
4.3.2.1	Australia (Melbourne).....	130
4.3.2.2	Bangladesh (Dhaka).....	130
4.3.2.3	China (Beijing and Hangzhou).....	132
4.3.2.4	Emergent Partnering Models.....	132
4.3.3	<i>Participation</i> .....	133
4.3.3.1	Realist perspective .....	133
4.3.3.2	Relational perspective .....	135
4.3.3.3	Interns and participation.....	136
4.3.3.3.1	Defining and structuring .....	137
4.3.3.3.2	Cross-site reflection and participation.....	137
4.4	PARTNER-LEVEL DESIGN .....	138
4.4.1	<i>Photovoice core workshops</i> .....	138
4.4.1.1	Workshop 1 - Ideation and photography .....	138
4.4.1.1.1	Ideation adaptations .....	139
4.4.1.2	Participant photography.....	141
4.4.1.2.1	Participant-photography adaptations.....	142
4.4.1.3	Workshop 2 - Photo-story development .....	145
4.4.1.3.1	Photo-story development adaptations .....	146
4.4.2	<i>Multi-sited photo-elicitation</i> .....	147
4.4.2.1	Unstructured photo-elicitation .....	148
4.4.2.1.1	Results and analysis .....	148
4.4.2.1.2	Selected Photo-elicitation examples:.....	150
4.4.2.1.3	Discussion.....	151
4.4.2.2	Structured photo-elicitation - <i>Think, Feel, Act</i> .....	153
4.4.3	<i>Peer-to-peer elicitation: photo-pen-pals</i> .....	156
4.4.3.1	Photo-pen-pals.....	156
4.4.3.1.1	Pen-pals process .....	157
4.4.3.1.2	Results and discussion .....	158
4.4.3.2	Initial multi-sited photovoice reflections.....	162
4.4.4	<i>Characteristics of open photovoice</i> .....	162
4.4.4.1	The persistence of materiality.....	162
4.4.4.2	Relationality and involvement.....	163
4.5	SUMMARY .....	164
<b>CHAPTER 5: FINDINGS B - PHOTO-STORY ANALYSIS .....</b>		<b>166</b>
5.1	INTRODUCTION .....	166
5.2	PROGRAM-CYCLE .....	166
5.3	SITE-CYCLE: VISUAL ANALYSIS .....	167

5.4	REALIST CONTENT ANALYSIS.....	169
5.4.1	<i>First round analysis</i> .....	170
5.4.1.1	Post-workshop photo-story overview.....	170
5.4.1.2	Exhibition filtering and gathering .....	170
5.4.2	<i>Second Round Analysis</i> .....	171
5.4.2.1	Photo content.....	172
5.4.2.2	Text themes .....	174
5.4.2.3	Reflections on second round analysis.....	176
5.4.3	<i>Third Round Analysis</i> .....	177
5.4.3.1	Sample selection and coding methods.....	177
5.4.3.2	Photo Analysis.....	178
5.4.3.2.1	Content.....	178
5.4.3.3	Photo-story form.....	183
5.4.4	<i>Text coding</i> .....	185
5.4.4.1	Text content.....	185
5.4.4.2	Theme .....	186
5.4.4.3	Voice .....	188
5.4.5	<i>Discussion</i> .....	188
5.4.6	<i>Limitations</i> .....	189
5.4.6.1	Empirical.....	189
	Epistemological.....	190
5.5	RELATIONAL MATERIALIST THEMATIC ANALYSIS.....	191
5.5.1	<i>Thematic analysis</i> .....	192
5.5.1.1	Supporting Humans .....	193
5.5.1.2	Reciprocal giving.....	194
5.5.1.3	Sight in human-nature relations .....	195
5.5.2	<i>Discussion</i> .....	197
5.5.3	<i>Limitations of relational materialist approach</i> .....	197
5.6	SUMMARY .....	198
	<b>CHAPTER 6: FINDINGS C - PHOTO-STORY AUDIENCE ENGAGEMENT .....</b>	<b>200</b>
6.1	INTRODUCTION .....	200
6.2	PROGRAM-CYCLE .....	200
6.3	REALIST APPROACH .....	202
6.3.1	<i>Exhibitions</i> .....	202
6.3.1.1	Portraits of Change I exhibition.....	203
6.3.1.2	Portraits of Change II exhibition .....	204
6.3.1.2.1	Photo-story pairing .....	205
6.3.1.2.2	Gender influence on engagement.....	206
6.3.1.2.3	Emotional responses.....	207
6.3.1.2.4	Image, story and emotional impact.....	208
6.3.1.2.5	Online component.....	209
6.3.1.2.6	Discussion.....	209
6.3.1.3	Portraits of Change III exhibition.....	210
6.3.1.4	Local-organised exhibitions (Bangladesh and China).....	213
6.3.1.4.1	Bangladesh - North South University exhibition .....	213
6.3.1.4.2	Bangladesh - Jaago exhibition.....	214
6.3.1.4.3	China - Zhejiang University of Media and Communications Exhibition .....	216
6.3.1.4.4	Discussion.....	216
6.3.1.5	Learnings from exhibitions.....	217
6.3.2	<i>Photo action Interviews</i> .....	218
6.3.2.1	Interview process .....	218
6.3.2.2	Results and discussion.....	220
6.3.2.2.1	Australia emotion comparison .....	220
6.3.2.2.2	Australia-Bangladesh emotional comparison.....	220
6.3.2.2.3	Photo-story selection.....	221
6.3.2.2.4	Emotional response themes .....	221
6.3.2.2.5	Post-interview engagement.....	224
6.3.2.3	Reflections on interview methods.....	224
6.3.3	<i>Group Action Projects</i> .....	225
6.3.3.1	GAP processes .....	225
6.3.3.1.1	Results and discussion .....	226
6.3.4	<i>Limitations of realist-empirical analysis</i> .....	230

6.4	RELATIONAL ANALYSIS.....	230
6.4.1	<i>Exhibitions</i> .....	231
6.4.1.1	Portraits of Change I exhibition.....	231
6.4.1.2	Portraits of Change II exhibition .....	232
6.4.1.3	Portraits of Change III exhibition.....	234
6.4.2	<i>Photo action interviews</i> .....	236
6.5	SUMMARY .....	238
<b>CHAPTER 7 - CONCLUSIONS .....</b>		<b>240</b>
7.1	OVERVIEW .....	240
7.2	<b>ADAPT</b> - DESIGN FOR PHOTO-STORY CREATION.....	242
7.2.1	<i>Program-level design</i> .....	242
7.2.2	<i>Site-level design</i> .....	242
7.2.3	<i>Partner-level design</i> .....	243
7.2.4	<i>Adapt contributions summary</i> .....	245
7.2.5	<i>Opportunities for future research</i> .....	246
7.2.5.1	Deepening participation .....	246
7.2.5.2	Expanding sites .....	246
7.2.5.3	Developing workshop practices .....	246
7.3	<b>VISUALISE</b> - PHOTO-STORY ANALYSIS.....	247
7.3.1	<i>Realist analysis</i> .....	247
7.3.2	<i>Relational Analysis</i> .....	250
7.3.3	<i>Visualise contributions summary</i> .....	250
7.3.4	<i>Opportunities for future research</i> .....	251
7.3.4.1	Extending realist analysis .....	251
7.3.4.2	Extending relational materialist analysis.....	251
7.3.4.3	Deepening analysis of cultural dimensions of <i>nature</i> and behaviour change .....	251
7.4	<b>INFLUENCE</b> - PHOTO-STORY ENGAGEMENT AND BEHAVIOUR .....	252
7.4.1	<i>Realist approach</i> .....	252
7.4.1.1	Exhibitions.....	252
7.4.1.2	Interviews .....	253
7.4.2	<i>Relational approach</i> .....	255
7.4.3	<i>Influence contributions summary</i> .....	255
7.4.4	<i>Opportunities for future research</i> .....	256
7.4.4.1	Extending photo-story dialogues.....	256
7.4.4.2	Deepening environmental behaviour engagement.....	256
7.4.4.3	Deepening peer-to-peer engagement .....	256
7.5	CONCLUDING REMARKS .....	257
7.5.1	<i>Methods and contribution</i> .....	257
7.5.2	<i>Sharing and learning</i> .....	258
7.5.3	<i>Coda</i> .....	259
<b>APPENDIX A - KNOWLEDGE SHARING .....</b>		<b>260</b>
8.1	APPENDIX A1 - PRESENTATIONS MADE ON BEHALF OF THE PROJECT .....	260
<b>APPENDIX B - METHODOLOGY .....</b>		<b>261</b>
9.1	APPENDIX B1 - SPATIAL-TEMPORAL LEVELS .....	261
9.2	APPENDIX B2 - PAR METHODS .....	262
9.3	APPENDIX B3 - PAR SUMMARY DATA .....	263
9.4	APPENDIX B4 - INTERN POSITION DESCRIPTIONS .....	267
9.5	APPENDIX B5 - PARTNER ORGANISATION .....	273
9.6	APPENDIX B6 - CROWDFUNDING .....	278
9.7	APPENDIX B7 - PARTNER NOTES EXTRACT .....	279
<b>APPENDIX C - WORKSHOPS.....</b>		<b>281</b>
10.1	APPENDIX C1 - RECRUITMENT .....	281
10.2	APPENDIX C2 - WORKSHOP LIST .....	283
10.3	APPENDIX C3 - CONSENT AND INFORMATION FORMS.....	284
10.4	APPENDIX C4 - WORKSHOP HANDOUTS.....	288
10.5	APPENDIX C5 - WORKSHOP PRESENTATIONS.....	296

10.6	APPENDIX C6 - WORKSHOP OUTLINES (SELECTED).....	302
10.7	APPENDIX C7 - WORKSHOP PHOTOGRAPHIC DOCUMENTATION .....	304
10.8	APPENDIX C8 - WORKSHOP PROCESSES.....	308
10.9	APPENDIX C9 - WORKSHOP SOCIAL MEDIA .....	311
<b>APPENDIX D - ANALYSIS.....</b>		<b>315</b>
11.1	APPENDIX D1 - PHOTO-STORY DATA ANALYSIS (II).....	315
11.2	APPENDIX D2 - PHOTO-STORY DATA ANALYSIS (III) - NVIVO .....	316
11.3	APPENDIX D3 - PHOTO-STORY DATA ANALYSIS (III) - HUMAN-NATURE CLUSTERING.....	321
11.4	APPENDIX D4 - PHOTO-ELICITATION .....	323
<b>APPENDIX E - PHOTO-STORY ENGAGEMENT .....</b>		<b>324</b>
12.1	APPENDIX E1 - EXHIBITION DOCUMENTATION .....	324
12.2	APPENDIX E2 - EXHIBITION PARTICIPATION DATA - PORTRAITS OF CHANGE II.....	331
12.3	APPENDIX E3 - EXHIBITION PARTICIPANT DATASETS (BANGLADESH/CHINA) .....	337
12.4	APPENDIX E4 - INTERVIEW DATASETS.....	340
12.5	APPENDIX E5 - INTERVIEW GUIDELINES.....	347
12.6	APPENDIX E6 - GROUP ACTION PROJECTS.....	349
12.7	APPENDIX E7 - PORTRAITS OF CHANGE VIDEO DOCUMENTATION .....	352
12.8	APPENDIX E8 - PORTRAITS OF CHANGE VISION AND VALUES .....	353
<b>APPENDIX F - OPEN PHOTOVOICE RECIPE.....</b>		<b>354</b>
<b>REFERENCES.....</b>		<b>356</b>

## Personal foreword

Three longstanding passions drew me towards this inquiry: Firstly, I have had a deep-rooted desire for environmental care and protection from an early age, growing up in a rural area with the feelings of connection to the natural world around me, and subsequently expressing this through my involvement in grassroots environment and social change movements.

Secondly, since first teaching photography to street children in India in 2004, I have been attracted to the emancipatory potential in sharing the lens and representational power with local communities, and have explored this through various participatory photography projects across the Asia-Pacific. Theoretically, I was guided by an intuitive appreciation of the power of photo story-telling in communicating the lives of people across cultures.

Thirdly, growing up between my parent's Anglo-Australian and Chinese-Malaysian cultures led to appreciation of the possibilities that can emerge through the juxtaposition of different cultural perspectives. Volunteering abroad and subsequently facilitating other international volunteer programs deepened this appreciation and exposed me to transformational learning in the face of local environmental and social justice issues, negotiating my own relative privilege and positionality with the perspective that we are also all in “spaceship earth” together (Fuller 1969, 12).

I developed this action-research project to explore both the confluence and tensions between these three strands – between myself as a *photographer* drawn to visualising natural beauty and environmental behaviour as my practice, that of a *facilitator* supporting other people telling their stories of change, and that of a *connector* bringing people and stories together across differences to amplify their impacts.

# Definitions

## Acronyms

Term	Definition
<i>ANT</i>	Actor Network Theory
<i>ARRCC</i>	Australian Religious Response to Climate Change
<i>AU</i>	Australia
<i>AYCC</i>	Australian Youth Climate Coalition
<i>BD</i>	Bangladesh
<i>CN</i>	China
<i>CPD</i>	Centre for Partnerships and Dialogue
<i>CRCC Asia</i>	China Recruitment and China Consulting
<i>DSLR</i>	Digital Single Lens Reflex Camera
<i>EEV</i>	Environmental Education Victoria
<i>FoN</i>	Friends of Nature
<i>GEW</i>	Geneva Emotion Wheel
<i>ICCCAD</i>	International Centre for Climate Change and Development
<i>IUB</i>	Independent University Bangladesh
<i>Jaago Korail</i>	Jaago Foundation Korail Primary School
<i>Jaago Rayer Bazar</i>	Jaago Foundation Rayer Bazar Secondary School
<i>Livewell</i>	Livewell Yarra
<i>LPO</i>	Local Partner Organisation
<i>MADA</i>	Monash Faculty of Design and Architecture
<i>Monash</i>	Monash University
<i>MSA</i>	Monash Student Association
<i>MSE</i>	Multi-Site Ethnography
<i>MWSC</i>	Mount Waverley Secondary College
<i>NGO</i>	Non-Government Organisation
<i>NS</i>	North South University
<i>PAR</i>	Participatory Action Research
<i>PoC</i>	Portraits of Change program – the entire action research program
<i>Save</i>	Save the Children Bangladesh
<i>SLF</i>	Sustainable Living Festival
<i>SoS</i>	Students of Sustainability
<i>St Louis</i>	St Louis de Monfort's Primary School
<i>VFB</i>	Volunteer for Bangladesh
<i>ZUMC</i>	Zhejiang University of Media and Communications

## Glossary

Term	Definition
<i>Activity-level</i>	This level represented the individual specific activities conducted at each site through one partner organisation
<i>Activity-cycle</i>	These PAR cycles represented individual specific activities - such as workshops, interviews, which had specific times and locations
<i>Adapted-methods</i>	Design process method developed measure photovoice adaptation
<i>Ecological footprint</i>	The impact of a person or community on the environment, expressed as the amount of land required to sustain their use of natural resources
<i>Environmental engagement</i>	Environmental relations including areas of cognition, attitude, and behaviour
<i>Group action projects</i>	Short term small group projects with collective environmental behaviour goals , facilitated by local youth mentors
<i>Location-Level</i>	This level represented cities where local partners were located, each site contained one location with the exception of China
<i>Open photovoice</i>	Adapted photovoice method where ideation and photography is opened up to multi-sited photo-elicitation
<i>Partner-cycle</i>	These PAR cycles grouped specific activity-cycles that were run with the same partner organisation
<i>Partner-cycle</i>	These PAR cycles grouped specific activity-cycles that were run with the same partner organisation
<i>Partner-level</i>	This level represented local partner organisation(s) which the activities were co-organised with
<i>Phase-cycle</i>	These represented methodologically-grouped site cycles, which occurred across different times and spaces
<i>Photo-story</i>	Expression of visual storytelling involving one or more photographs with accompanying text.
<i>Photo action interviews</i>	Photo-elicitation interview method guiding a participant from responding to a photograph to making environmental behaviour commitments
<i>Photo-elicitation</i>	Techniques for soliciting responses from people using photographs as catalysts
<i>Photovoice</i>	Diverse collection of participatory photography methods encompassing photography and text development through elicitation
<i>Program-cycle</i>	This broadest PAR cycle encompassed the whole photovoice program, which unfolded across nine phase cycles across three countries
<i>Program-level</i>	This broadest spatial level encompassed the whole photovoice program, which unfolded across 17 successive PAR site cycles, across three countries
<i>Site-Cycles</i>	These PAR cycles grouped partner-cycle activity together at a single site during a single field visit
<i>Site-level</i>	This level represented country-based sites - Australia, Bangladesh, and China
<i>Sustainable development</i>	Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs
<i>Sustainability</i>	Avoidance of the depletion of natural resources in order to maintain an ecological balance

# List of figures

FIGURE 1 - POSITIONING OF THE PROJECT AT THE INTERSECTION .....	25
FIGURE 2 - PHOTOVOICE WORKSHOP (PHOTOGRAPHY) .....	28
FIGURE 3 - PHOTOVOICE WORKSHOP (PHOTO-STORY DEVELOPMENT).....	26
FIGURE 4 - PARTICIPANT WITH PHOTO-STORY .....	28
FIGURE 5 - PHOTO-STORIES .....	26
FIGURE 6 - EXHIBITION - MELBOURNE .....	27
FIGURE 7 - EXHIBITION - DHAKA .....	27
FIGURE 8 - COUNTRY AND SITES (RELATIVE SIZES) .....	29
FIGURE 9 - MULTI-SITED PHOTOVOICE PROGRAM .....	32
FIGURE 10 - ENVIRONMENTAL BEHAVIOURS AND THEIR ASSOCIATED IMPACTS .....	41
FIGURE 11- INDIVIDUAL ENVIRONMENTAL BEHAVIOURS .....	42
FIGURE 12 - GREENPEACE IMAGE SHOWING COMPARATIVE PHOTOGRAPHS OF GLACIERS.....	46
FIGURE 13 - CHRISTIAN AID UK IMAGE 1.....	49
FIGURE 14 - CHRISTIAN AID UK IMAGE 2.....	47
FIGURE 15 - GREENPEACE'S ICONIC ANTI-SEALING PHOTOGRAPH.....	48
FIGURE 16 - MORNING MIST.....	49
FIGURE 17 - PHOTOVOICE WORKSHOP SLIDE FROM CURRENT STUDY .....	50
FIGURE 19 - PHOTOVOICE IN THE FIELD.....	57
FIGURE 20 - HEAD, HEART AND HANDS FRAMEWORK OF SUSTAINABILITY LEARNING .....	57
FIGURE 21- DOCUMENTATION OF PARTICIPATORY VISUAL PROCESSES .....	58
FIGURE 22 - LITERATURE GAP SITUATING RESEARCH PROJECT .....	64
FIGURE 22 - PARTICIPATION, ACTION, RESEARCH .....	70
FIGURE 23 - IDEALISED PAR CYCLES.....	73
FIGURE 24 - PHOTOVOICE IMPACT MODEL.....	75
FIGURE 25 - BLACKBERRY 9800 IN ACTION (DHAKA) .....	79
FIGURE 26 - WORKSHOP SLIDE EXTRACT .....	79
FIGURE 27 - PHOTOVOICE EXHIBITION MODEL .....	83
FIGURE 28 - DESIGN RESEARCH MAP .....	86
FIGURE 29 - FORESIGHT ACTION MODEL SESSION (MELBOURNE) .....	87
FIGURE 30 - FRIENDS OF NATURE PLANNING WORKSHOP (BEIJING).....	87
FIGURE 31 - PARTICIPANT WORKSHOP EVALUATION, JAAGO RAYER BAZAAR, DHAKA.....	88
FIGURE 32 - EXTRACT FROM WORKSHOP-DESIGN PROCESS MAPPING.....	90
FIGURE 33 - SPATIAL LEVELS SHOWING PARTNERS.....	92
FIGURE 34 - TEMPORAL CYCLES .....	93
FIGURE 35 - SELECTED COUNTRIES AND DEMOGRAPHICS (WORKSHOP SLIDE) .....	97
FIGURE 36 – RESEARCH SITES MAP.....	98
FIGURE 37 – PARTNER SELECTION CRITERIA .....	100
FIGURE 38 – EXAMPLE STAKEHOLDER RELATIONSHIPS NEEDS.....	101
FIGURE 39 - SOCIAL-ECOLOGICAL PHOTOVOICE OUTCOME MODEL .....	107
FIGURE 40 - DESIGNERS RESPONDING TO COMPLEX PROBLEMS.....	108
FIGURE 41 - FULL PROGRAM STRUCTURE.....	113
FIGURE 42 - PROGRAM CATEGORIES AND RESEARCH THEMES.....	114
FIGURE 43 - JAAGO KORAIL WORKSHOP.....	116
FIGURE 44 -WORKSHOP-LEVEL EXPERIMENTATION .....	116
FIGURE 45 - CPD CHILD CLUB WORKSHOP .....	117
FIGURE 46 - ENVIRONMENTAL IMPACTS (WORKSHOP SLIDE) .....	118
FIGURE 47- MULTI-SITED PHOTOVOICE MINIMUM VIABLE PROCESS .....	119
FIGURE 48 - MULTI-SITED PHOTOVOICE MVP - ORGANISED BY THEME.....	120
FIGURE 49 - MULTI-SITED PHOTOVOICE MVP - ORGANISED BY TIME SEQUENCE .....	120
FIGURE 50 - PROJECT PHASES.....	121
FIGURE 51 - FACILITATION TEAM AT JAAGO RAYER BAZAR .....	126
FIGURE 52 - PRESENTING AT JAAGO KORAIL .....	124
FIGURE 53 - ADAPT PHOTOVOICE METHODS .....	125

FIGURE 54 - PARTNER ORGANISATIONS CONTACT SUMMARY .....	126
FIGURE 55 - INITIAL SCOPING SITE-CYCLE 1-2 .....	128
FIGURE 56 - FOLLOW-ON SCOPING SITE-CYCLE 4-5.....	128
FIGURE 57 - PROPOSED AND ACTUAL SITE RELATIONSHIPS.....	129
FIGURE 58 - TYPICAL BANGLADESH LOCAL PART ARRANGEMENTS (SITE-CYCLE 6) .....	131
FIGURE 59 - PARTNERING MODELS.....	133
FIGURE 60 - PARTICIPATION AS SHOWN BY CHINA (BEIJING) SITE-CYCLE 6 .....	134
FIGURE 61 - STUDENTS ENROLLING OTHERS ON PHOTOSHOOT (JAAGO KORAIL AND RAYER BAZAAR).....	135
FIGURE 62 - INTERN AGAM IN MELBOURNE .....	139
FIGURE 63 - INTERN AGAM IN DHAKA .....	137
FIGURE 64 - ADAPT PHOTOVOICE METHODS .....	138
FIGURE 65 - PRIMARY LEVEL IDEATION WORKSHOP IN DHAKA (JAAGO KORAIL).....	139
FIGURE 66 - IDEATION WORKSHOP SLIDE (SITE-CYCLE 4 ) .....	142
FIGURE 67 - IDEATION WORKSHOP SLIDE (SITE-CYCLE 7).....	140
FIGURE 68 - SECONDARY LEVEL PARTICIPANT PHOTOGRAPHY IN DHAKA (JAAGO RAYER BAZAR) .....	142
FIGURE 69 - DHAKA TERTIARY PHOTO-STORY (IUB).....	143
FIGURE 70 - DHAKA PRIMARY PHOTO-STORY (JAAGO KORAIL) .....	144
FIGURE 71 - PHOTO-STORY DEVELOPMENT WORKSHOP .....	145
FIGURE 72 - EXAMPLE OF A MULTI-SITED PHOTO-ELICITATION PROCESS .....	147
FIGURE 73 - SELECTED PHOTOSTORY 1 (DHAKA JAAGO KORAIL).....	150
FIGURE 74 - SELECTED PHOTOSTORY 2 (DHAKA JAAGO KORAIL).....	151
FIGURE 75 - THINK, FEEL AND ACT FRAMEWORK (WORKSHOP SLIDE) .....	153
FIGURE 76 - GENEVA EMOTION WHEEL .....	153
FIGURE 77 - STRUCTURED PHOTO ELICITATION EXAMPLES (JAAGO RAYER BAZAR).....	153
FIGURE 78 - PHOTO-ELICITATION EMOTION FREQUENCY (BANGLADESH) .....	154
FIGURE 79 - ZUMC, HANGZHOU PHOTO-STORY 1 (MOST POPULAR PHOTO-STORY) .....	155
FIGURE 80 - SLIDE FROM PROJECT PRESENTATION OUTLINING PHOTO-PEN-PALS ACTIVITIES .....	156
FIGURE 81 - MT WAVERLEY WORKSHOP AND PHOTO-STORY.....	157
FIGURE 82 - ST LOUIS WORKSHOP AND PHOTO-STORY.....	157
FIGURE 83 - EXAMPLE PHOTO-STORY LETTERS FROM MT WAVERLEY STUDENTS.....	158
FIGURE 84 - AUSTRALIAN LETTER THEMES .....	158
FIGURE 85 - BANGLADESH LETTER THEMES.....	159
FIGURE 86 - BANGLADESH SPICES PHOTO-STORY (RAYER BAZAR).....	160
FIGURE 87 - BANGLADESH PENPAL LETTER.....	161
FIGURE 88 - VISUALISE SITE-CYCLES.....	167
FIGURE 89 - LANDSCAPE OF VISUAL ANALYSIS METHODS.....	168
FIGURE 90 - SUBSET OF FULL PROGRAM SHOWING PHOTO-ANALYSIS SITE-CYCLES .....	169
FIGURE 91 - PHOTO-STORY CONTENT FREQUENCY WORD CLOUD.....	172
FIGURE 92 - PHOTO-STORY CONTENT FREQUENCY (% PHOTO-STORIES) .....	173
FIGURE 93 - THEME - 'PLANTS' .....	174
FIGURE 94 - THEME - 'WASTE' .....	174
FIGURE 95 - THEME 'REPAIR/REUSE' .....	174
FIGURE 96 - PHOTO-STORY TEXT THEME FREQUENCY WORD CLOUD .....	175
FIGURE 97 - THEME - 'NATURE AS LIFE-GIVING' .....	175
FIGURE 98 - THEME - 'SIGHT' .....	175
FIGURE 99 - THEME - 'PERSONAL STORY' .....	175
FIGURE 100 - TEXT THEME FREQUENCY SUMMARY .....	176
FIGURE 101 - PHOTOGRAPH CONTENT ORGANISED BY SITE .....	178
FIGURE 102 - RE-USING PLASTIC BAGS (AUSTRALIA) .....	179
FIGURE 103 - RE-USING JUTE BAG (BANGLADESH) .....	179
FIGURE 104 - COMMUNITY GARDEN (AUSTRALIA) .....	180
FIGURE 105 - PLANTING TREES (BANGLADESH) .....	180
FIGURE 106 - POST-CONSUMER TRANSPORT .....	180
FIGURE 107 - RICKSHAW.....	181
FIGURE 108 - WASTING TOO MUCH (BANGLADESH) .....	180
FIGURE 109 - EWASTE RECYCLING (AUSTRALIA).....	182
FIGURE 110 - AIR POLLUTION 1 (CHINA) .....	180
FIGURE 111 - AIR POLLUTION 2 (CHINA).....	183
FIGURE 112 - CLOSE, MEDIUM AND FAR EXAMPLES FROM JAAGO RAYER BAZAAR, ROUND 3. ....	184

FIGURE 113 - PHOTOGRAPH FORM FREQUENCY .....	184
FIGURE 114 - WORD CLOUD - AUSTRALIA .....	184
FIGURE 115 - WORD CLOUD - BANGLADESH .....	184
FIGURE 116 - WORD CLOUD - CHINA .....	185
FIGURE 117 - PHOTO-STORY TEXT CONTENT FREQUENCY .....	186
FIGURE 118 - PHOTO-STORY THEMES .....	187
FIGURE 119 - GIRL ON BICYCLE (DHAKA JAAGO KORAIL) .....	191
FIGURE 120 - HUMAN-NATURE THEMATIC MAP .....	192
FIGURE 121 - NATURE - SUPPORTING HUMANS THEME.....	193
FIGURE 122 - HUMAN-NATURE RECIPROCITY .....	194
FIGURE 123 - NATURE - SIGHT RELATIONSHIP .....	195
FIGURE 124 - INFLUENCE SITE-CYCLES .....	201
FIGURE 125 - JAAGO RAYER BAZAAR EXHIBITION PRESENTATION.....	202
FIGURE 126 - PORTRAITS OF CHANGE I .....	203
FIGURE 127 - SINGLE EXHIBITION PANEL .....	204
FIGURE 128 - PHOTO-STORY PANELS OVERHEAD.....	207
FIGURE 129 - PHOTO-STORY PANELS CLOSE-UP .....	205
FIGURE 130 - PHOTO-STORY STICKER RESPONSE (IMPACT) .....	205
FIGURE 131 - PHOTO-STORY STICKER RESPONSE (EMOTION) .....	206
FIGURE 132 - COLLECTIVE EMOTIONAL IMPACT VS. PANELS BY ARRANGEMENT .....	206
FIGURE 133 - FREQUENCY PLOT OF EMOTIONAL RESPONSES .....	208
FIGURE 134 - STORY AND IMAGE COLLECTIVE IMPACT VS. PANELS.....	210
FIGURE 135 - EXHIBITION MAIN SPACE .....	212
FIGURE 136 - EXHIBITION EXTERIOR .....	212
FIGURE 137 - EXTRACT FROM ONLINE ACTION PLEDGE .....	214
FIGURE 138 - ONLINE SUSTAINABLE LIVING PLEDGE.....	214
FIGURE 139 - NORTH-SOUTH UNIVERSITY EXHIBITION DOCUMENTATION.....	215
FIGURE 140 - NORTH SOUTH EXHIBITION ONLINE PLEDGES.....	216
FIGURE 141 - JAAGO RAYER BAZAAR EXHIBITION A .....	216
FIGURE 142 - JAAGO RAYER BAZAAR EXHIBITION B .....	216
FIGURE 143 - BD SECONDARY VS. TERTIARY PLEDGE COMPARISON.....	217
FIGURE 144 - ZUMC EXHIBITION MAIN SPACE.....	218
FIGURE 145 - ZUMC EXHIBITION PANEL .....	218
FIGURE 146 - INTERVIEWS FROM MONASH STUDENT ASSOCIATION, 2018.....	220
FIGURE 147 - INTERVIEWING ON COMMUNITY CLIMATE STALL, SLF 2018.....	221
FIGURE 148 - ENVIRONMENTAL BEHAVIOUR PLEDGES, SLF 2019 .....	221
FIGURE 149 - BANGLADESH VS. AUSTRALIA EMOTION COMPARISON.....	222
FIGURE 150 - PHOTO-SELECTION BY COUNTRY .....	223
FIGURE 151 - INTERVIEW RESPONSE EMOTION THEMES.....	224
FIGURE 152 - COMMUNITY MAPPING.....	227
FIGURE 153 - PROJECT THEME IDEATION .....	228
FIGURE 154 - EXHIBITION PRESENTATION, RAYER BAZAR .....	230
FIGURE 155 - JAAGO RAYER BAZAAR GROUP 2 TREE PROJECT.....	231
FIGURE 156 - JAAGO RAYER BAZAAR GROUP 3 STREET CLEAN PROJECT .....	231
FIGURE 157 - PORTRAITS OF CHANGE I NETWORK MAP .....	233
FIGURE 158 - PORTRAITS OF CHANGE II NETWORK MAP.....	235
FIGURE 159 - PORTRAITS OF CHANGE III NETWORK MAP .....	237
FIGURE 160 - INTERVIEW ACTOR-NETWORK DIAGRAM.....	239
FIGURE 161 - PHOTOGRAPHY IN KORAIL.....	246
FIGURE 162 - SHARING STORIES AT RAYER BAZAR.....	247
FIGURE 163 - "UNITY IS STRENGTH" RAYER BAZAR PHOTO-STORY.....	251
FIGURE 164 - INTERVIEW PORTRAITS AT SLF 2019 .....	256
FIGURE 165 - COMMON PAR METHODS SHOWING USAGE IN THE PROJECT .....	264
FIGURE 166 - FORESIGHT ACTION MODEL OVERVIEW .....	264
FIGURE 167 - PROCESS MAPPING (EXTRACT) .....	265
FIGURE 168 - CROWDFUNDING CAMPAIGN HOME PAGE .....	280
FIGURE 169 - REFLECTIVE DIARY EXTRACT, CHINA.....	281
FIGURE 170 - REFLECTIVE DIARY EXTRACT, BANGLA.....	282
FIGURE 171 - LIVEWELL PHOTO-STORY CALLOUT.....	283

FIGURE 172 - FRIENDS OF NATURE WORKSHOP RECRUITMENT .....	284
FIGURE 173 - BANGLADESH WORKSHOP PHOTO DOCUMENTATION .....	306
FIGURE 174 - CHINA WORKSHOP PHOTO DOCUMENTATION .....	308
FIGURE 175 - FACEBOOK GROUP FOR IUB PARTICIPANTS .....	313
FIGURE 176 - FACEBOOK GROUP FOR NS UNIVERSITY PARTICIPANTS .....	313
FIGURE 177 - PARTICIPANT PHOTO-STORY POST ON NS GROUP .....	314
FIGURE 178 - LOCAL EXHIBITION ORGANISER POST ON VFB GROUP .....	314
FIGURE 179 - FACEBOOK GROUP FOR JAAGO PHOTOVOICE MENTORS .....	315
FIGURE 180 - PARTICIPANT PHOTO-STORY POST ON IUB GROUP .....	316
FIGURE 181 - NODE HIERARCHY CHART.....	319
FIGURE 182 - PHOTOGRAPH FORM NODES ORGANISED BY PARTICIPANT GENDER.....	319
FIGURE 183 - PHOTOGRAPH CONTENT NODES ORGANISED BY PARTICIPANT GENDER .....	321
FIGURE 184 - PHOTOGRAPH FORM NODES ORGANISED BY PARTICIPANT SITE.....	321
FIGURE 185 - PHOTOGRAPH TEXT NODES ORGANISED BY PARTICIPANT SITE.....	322
FIGURE 186 - PHOTOGRAPH TEXT NODES ORGANISED BY PARTICIPANT GENDER.....	322
FIGURE 168 - PORTRAITS OF CHANGE I DOCUMENTATION A.....	326
FIGURE 188 - PORTRAITS OF CHANGE I PUBLICITY A.....	308
FIGURE 189 - PORTRAITS OF CHANGE I PUBLICITY B.....	327
FIGURE 190 - PORTRAITS OF CHANGE II DOCUMENTATION A .....	327
FIGURE 191 - PORTRAITS OF CHANGE II DOCUMENTATION B .....	328
FIGURE 192 - PORTRAITS OF CHANGE II DOCUMENTATION C.....	328
FIGURE 193 - PORTRAITS OF CHANGE II PUBLICITY .....	329
FIGURE 194 - PORTRAITS OF CHANGE III DOCUMENTATION A (JELLY BEAN ENGAGEMENT INCENTIVE) .....	330
FIGURE 195 - PORTRAITS OF CHANGE III DOCUMENTATION B.....	330
FIGURE 196 - PORTRAITS OF CHANGE III DOCUMENTATION C.....	331
FIGURE 197 - PORTRAITS OF CHANGE III DOCUMENTATION D.....	331
FIGURE 198 - PORTRAITS OF CHANGE III INTERPRETIVE SIGNAGE.....	332
FIGURE 199 - RAW STICKER DATA .....	333
FIGURE 200 - COLLECTIVE STORY IMPACT VS PANELS BY ARRANGEMENT .....	333
FIGURE 201 - COLLECTIVE IMAGE IMPACT VS PANELS BY ARRANGEMENT .....	334
FIGURE 202 - INDIVIDUAL EMOTIONAL IMPACTS BY GENDER.....	334
FIGURE 203 - COLLECTIVE EMOTIONS IMPACT VS PANELS BY GENDER .....	335
FIGURE 204 - POSITIVE VS NEGATIVE EMOTION COMPARISON .....	335
FIGURE 205 - EMOTIONS VS. IMAGE IMPACT COMPARISON .....	336
FIGURE 206 - PANELS STORY, IMAGE, EMOTIONS COMPARISON .....	336
FIGURE 207 - ONLINE PHOTO-STORY ENGAGEMENT (SCREEN CAPTURE).....	337
FIGURE 208 - ENGAGEMENTS VS PANEL POSITION (ONLINE).....	338
FIGURE 209 - OVERALL RESPONSES .....	338
FIGURE 210 - FREQUENCY PLOT OF RESPONSES RECORDING IMPACT (FORM ) .....	338
FIGURE 211 - FREQUENCY PLOT OF RESPONSES RECORDING IMPACT (CONTENT).....	338
FIGURE 212 - VFB PROPOSAL FOR JAAGO EXHIBITION .....	339
FIGURE 213 - FACEBOOK EVENT INVITATION JAAGO EXHIBITION.....	339
FIGURE 214 - WEIBO EVENT INVITATION ZUMC EXHIBITION .....	339
FIGURE 215 - JAAGO ONLINE PLEDGES .....	340
FIGURE 216 - INTERVIEWS COLLECTIVE EMOTIONS - AUSTRALIA (MSA/SLF 2018) .....	345
FIGURE 217 - BANGLADESH COMBINED PHOTO-STORY SELECTION.....	345
FIGURE 218 - PHOTO-STORY SELECTION BY SITE .....	345
FIGURE 219 - BANGLADESH TO AUSTRALIA MOTION SIMPLIFICATION .....	346
FIGURE 220 - COMPARISON SITE SELECTION - WHICH SITES CHOOSE WHICH PHOTOGRAPHS.....	346
FIGURE 221 - SLF 2019 FOLLOW-UP EVALUATION RESULTS .....	347
FIGURE 222 - BANGLADESH PHOTO-SELECTION BY WORKSHOP .....	348
FIGURE 223 - GROUP ACTION PROJECTS WORKSHOP DESCRIPTIONS.....	351
FIGURE 224 - GROUP ACTION PROJECTS EVALUATION.....	352
FIGURE 225 - WORKSHOP SCHEDULE.....	353

# List of tables

TABLE 1 - RESEARCH ORIENTATIONS AND QUESTIONS .....	25
TABLE 2 - TOTAL ENGAGEMENT ACTIVITIES AND PARTICIPANTS .....	27
TABLE 3 - DATA COLLECTION AND ANALYSIS METHODS .....	28
TABLE 4 - PARTNER ORGANISATIONS AND ACTIVITIES .....	30
TABLE 5 - PROGRAM PHASE CYCLES SUMMARY .....	31
TABLE 6 - RESEARCH ORIENTATIONS AND QUESTIONS - COLOUR MAPPED .....	66
TABLE 7 - COMPONENTS OF THE PHOTOVOICE PROCESS .....	76
TABLE 8 - ETHICAL PRINCIPLES AND IMPLEMENTATIONS .....	84
TABLE 9 - ADDITIONAL ETHICAL PRINCIPLES AND IMPLEMENTATIONS .....	84
TABLE 10 - SPATIAL LEVELS.....	92
TABLE 11 - TEMPORAL LEVELS.....	93
TABLE 12 - DIVERGENT COUNTRY VALUE INDICES .....	97
TABLE 13 - LOCAL PARTNER ENGAGEMENT APPROACH.....	100
TABLE 14 - ACTION RESEARCH PROGRAM SUMMARY (SITE CYCLES).....	112
TABLE 15 - INTERN ROLES AND DUTIES .....	136
TABLE 16 - WORKSHOP IDEATION AND ELICITATION ADAPTATIONS.....	140
TABLE 17 - MOST POPULAR SELECTED UNSTRUCTURED ELICITATION PHOTO-STORIES (HANGZHOU) .....	152
TABLE 18 - SECOND ROUND CODING SCHEMA (EXTRACT).....	171
TABLE 19 - SELECTED PHOTO-STORY SETS.....	177
TABLE 20 - PHOTO-STORIES THEMES .....	186
TABLE 21 - OPEN PHOTOVOICE ENGAGEMENT METHODS.....	201
TABLE 22 - PORTRAITS OF CHANGE III EVENT PROGRAM.....	212
TABLE 23 - GAP SUMMARIES AND OUTPUTS .....	229
TABLE 24 - MOST POPULAR PHOTOGRAPHED SUBJECTS.....	250
TABLE 25 - OPEN PHOTOVOICE COMPARISON SUMMARY .....	259
TABLE 26 - PROJECT PRESENTATIONS .....	262
TABLE 27 - FULL SPATIAL-TEMPORAL SCREENER.....	263
TABLE 28- AUSTRALIA PAR CYCLE NOTES EXTRACT .....	266
TABLE 29- BANGLADESH PAR CYCLE NOTES EXTRACT .....	267
TABLE 30- CHINA PAR CYCLE NOTES EXTRACT.....	268
TABLE 31 - ALL CONTACTED PARTNER ORGAANISATIONS .....	275
TABLE 32- PARTNER ORGANISATIONS CONTACT SUMMARY.....	276
TABLE 33 - PARTNER ORGANISATIONS - TOP LEVEL AND DETAILS.....	277
TABLE 34- CHINA PARTNER SCOPING DOCUMENTATION.....	278
TABLE 35 - CHINA PARTNER SCOPING PHOTOGRAPHIC DOCUMENTATION .....	279
TABLE 36 - COMPLETE LIST OF ENGAGEMENT ACTIVITIES (WORKSHOPS, PRESENTATIONS, INTERVIEWS, EXHIBITONS) ...	285
TABLE 37- JAAGO RAYER BAZAR WORKSHOP 1 OUTLINE.....	304
TABLE 38- JAAGO RAYER BAZAR WORKSHOP 2 OUTLINE.....	305
TABLE 39 - WORKSHOP ADAPTATION PROCESSES.....	310
TABLE 40- WORKSHOP META PROCESSES.....	311
TABLE 41 - VOLUNTEER AND MENTOR BRIEFINGS .....	312
TABLE 42 - SECOND ROUND PHOTO ANALYSIS WORKING SHEET .....	317
TABLE 43 - NVIVO NODE SUMMARY TOTALS .....	318
TABLE 44 -NODE THEME CODING HIERARCHY, BOLD INDICATES AGGREGATE THEME .....	320
TABLE 45 - ZUMC UNSTRUCTURED PHOTO-ELICITATION .....	325
TABLE 46 - BANGLADESH EXHIBITION EVALUATION SURVEY DATA .....	341
TABLE 47 - PHOTO ACTION INTERVIEWS - SLF 2019.....	342
TABLE 48 - PHOTO ACTION INTERVIEWS - SLF 2018.....	343

# Prologue

In one day, over 1.8 billion digital photographs are uploaded to the internet (Meeker 2014), while 200 species may become extinct due to human collective planetary impact (UN-Environment 2019). The phone in your pocket can instantly share these photographs and stories around the world, but how often are we actually exposed to the stories that are outside of our known sphere of comfort or knowledge? Everyday acts of care for the environment happen all around us, yet remain largely invisible against the forceful, blockbuster images of natural disasters or nature documentaries. As how we see influences what we feel is possible, and how we think about taking action, I seek to make visible these invisible caring acts, connecting them across far flung places to open up windows into other worlds, lives and relationships, and through doing so I hope to inspire expanded acts of care outside the camera lens and what it frames. In this seeking I start from my known position of being a photovoice practitioner and researcher, and incrementally journey into the unknown through cycles of acting and reflecting, that move between and within vastly different local realities across three countries, and hundreds of unique perspectives.

*‘The real voyage of discovery consists not in seeking new landscapes,  
but in having new eyes.’*

(Proust 2006, 483)



Trees block the building, but it cannot stop the pollution. From the road, the trees on both sides let people feel vitality, but looking up you find a different picture. What we need is not just the greenery on the surface, but the environmental protection from the heart. Don't let the green hide our view, don't let the pollution be hidden. (photographer, Hangzhou, China)

*"I feel sadness and disappointment from having to have manufacturing that pollutes, and interest from how it is hidden, and what else is hidden away, especially in our first world country. We buy lots of thing from China, we are the part of the pollution problem, but don't suffer from. It makes me think globally, seeing what is happening beyond our borders, the places where our waste etc. might be going... I want to research more into this, to keep on reducing new purchases." (responder, Melbourne, Australia)*

# Chapter 1 - Introduction

In this introductory chapter I provide a high-level overview of the action-research, locating it thematically, conceptually and methodologically through considering the justification for the inquiry, research framing, scope and limitations. I also provide a clear orientation to the thesis through discussing its structure, navigation and voice.

## 1.1 Research justification

### 1.1.1 *Environmental and representational crises*

We currently face unprecedented global environmental crises with ecological impacts growing exponentially since the 1950s, which are threatening the biosphere and survival of life on our planet (Steffen, et al. 2015; Klein 2015). Proliferation of photographic images in global and local media spaces have been rising in parallel with these crises and play a critical role in communicating both our environmental situation and responses to it (Priest 2016). While photography has contributed to encouraging material consumption and its associated environmental impacts (Hand 2012; Wilk 1998), it has also been a powerful voice for influencing positive environmental change (Schneider and Nocke 2014). However, this voice has been problematic due to the dominance of ‘fear-based’ images which can actually disempower viewers (O'Neill and Nicholson-Cole 2009), while ‘hope-based’ images tend to reproduce an aestheticised and stylised ‘nature’ rather than specific environmental behaviours or solutions (Nurmis and Paulina 2017). Furthermore engaging as a passive viewer of such photography is less effective than active experiential engagement (Maiteny 2002; Weber 2006). Finally the generic and abstract qualities of much environmental and climate change imagery renders it less personally engaging and relevant (Boomsma, Pahl, and Andrade 2016; Sheppard 2012).

I respond to these issues by using participatory action research to explore how photovoice methods can facilitate alternative, locally-engaged environmental behaviour change visualisations in a multi-sited context. This contributes to visual research methods through developing a novel *open photovoice* method which extends participation from photographic creation to audience engagement and has broader implications for participatory action research

and environmental behaviour change programs. In this way the inquiry uses methods from design-based participatory action research to explore themes in the environmental humanities and social sciences space, bringing them into conversation with each other. This introductory chapter provides the high-level overview of the action-research program, locating it thematically, conceptually and methodologically.

### 1.1.2 Photovoice research context

*Photovoice* can be defined as a form of participatory photography that combines photography and group processes to provide participants with opportunities to record and reflect on their lives (Wang and Burris 1997; Wang 1999). As such it forms a promising response to the above limitations through generating locally-relevant, narrative-rich images through experiential engagement. It encompasses various participatory methods including ideation, photography, groupwork, and photo-elicitation (Wang, et al. 1998; Hergenrather, et al. 2009). As a form of participatory action-research, its goals are centred around participant empowerment as a process outcome, in addition to data collection as a product outcome (Lewin 1946; Whitehead 2008; Schön 2017). Photovoice techniques generally seek to disrupt top-down ‘external expert’ knowledge claims in both photographic representation and local knowledge generation (Delgado 2015).

Since Wang and Burris' (1994) pioneering work in the community health field, photovoice has rapidly proliferated across disciplines (Lykes and Scheib 2015). However, despite this expansion most studies still focus exclusively on human rather than ecological issues, and those that do rarely engage with positive environmental behaviour (Bennett 2013). Consequently, there is potential to develop environmentally-themed photovoice approaches with a behavioural focus. As participatory action research cycles centre on temporal processes, however, to situate the spatial ‘multi-sitedness’ of this inquiry I draw from *multi-sited ethnography*; that is, modes of qualitative research which collapse the distinction between the local site and the global system – following local phenomena across multiple, geographically separate sites (Marcus 1995; Falzon 2016). In this inquiry I follow the evolving participatory processes of visualising environmental behaviour change across urban sites in Australia, Bangladesh, and China. The simplified conceptual and methodological landscape which frame the project and situate its contributions is represented in (Figure 1) below.

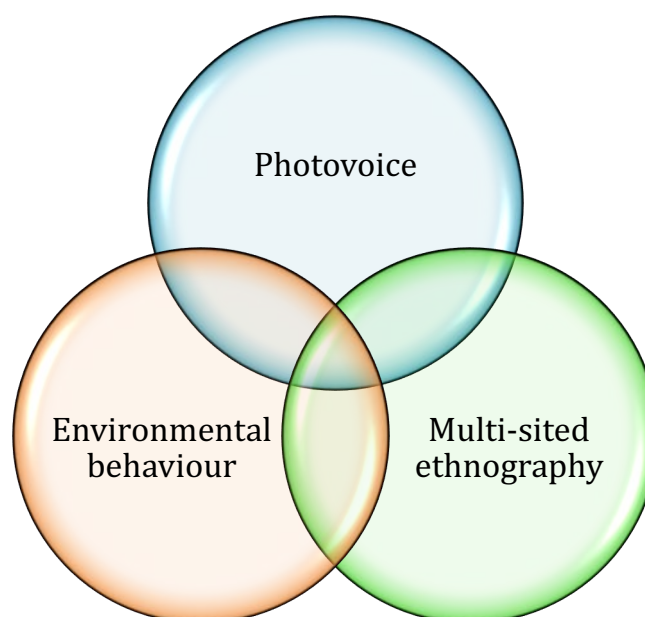


Figure 1 - Positioning of the project at the intersection

## 1.2 Research - framing

### 1.2.1 Research orientations and questions

I respond to the above research opportunities through exploring three distinct yet related research orientations: *adapt*, *visualise* and *influence*. My research investigates how *adapting* photovoice processes can help *visualise* and *influence* environmental behaviour in a multi-sited context, through a design-based participatory action research approach, defined below. I developed research questions corresponding to each orientation during the inquiry (Table 1).

Table 1 - Research orientations and questions

Orientation	Research Sub-Question
<b>Adapt</b>	<i>How might we <b>adapt</b> photovoice across multiple-sites?</i>
<b>Visualise</b>	<i>How might we use multi-sited photovoice to <b>visualise</b> local environmental behaviour?</i>
<b>Influence</b>	<i>How might we use multi-sited photovoice to <b>influence</b> local environmental behaviour?</i>

## 1.2.2 Research practices

As my inquiry is practice-based<sup>1</sup> I outline here a selection of the key practices I developed before introducing their methodological and theoretical context.

### Photovoice workshop and adapted methods

I conducted 80 photovoice workshops across Australia, Bangladesh and China to explore how these methods may be adapted in the multi-sited context (Figure 2, Figure 3).



Figure 2 - Photovoice workshop (photography)



Figure 3 - Photovoice workshop (photo-story development)

### Photo-stories and visual analysis

Gathering the 542<sup>2</sup> photo-stories that participants created during the workshops, I explored different methods of analysing a selection of them to explore how environmental behaviours were visualised across the three countries (Figure 4, Figure 5).



Figure 4 - Participant with photo-story



Figure 5 - Photo-stories

<sup>1</sup> In using this term I identify my research process as being *through* design (Frayling 1994), being a form of *practice-based* research (Candy 2006).

<sup>2</sup> This figure is the best estimate - there were additional photo-stories created in various rounds in Bangladesh and China whilst I was in Melbourne that I was unable to track down by time of writing - thus the true number is higher.

### Photo-story engagement and influence

I experimented with various techniques of facilitating public engagement with the photo-stories – including exhibitions, interviews, and collaborative projects to assess their potential to influence positive environmental behaviour (Figure 6, Figure 7).



Figure 6 - Exhibition (Melbourne, 2017)



Figure 7 - Exhibition (Dhaka, 2019)

For an overview of the total number of these activities, together with estimated participant numbers for each across the three countries, see (Table 2).

Table 2 - Total engagement activities and participants

Activity	No. activities	No. participants			Totals
		Australia	Bangladesh	China	
Workshops	80	90	237	395	<b>722</b>
Interviews	3	92	0	0	<b>92</b>
Exhibitions	8	230	240	50	<b>520</b>
<b>Totals</b>	<b>91</b>	<b>412</b>	<b>477</b>	<b>445</b>	<b>1334</b>

### 1.2.3 Methodology and methods

I use design-based participatory action research (PAR) as the methodological framework for the inquiry. Discussed in depth in Chapter 3, this framework emphasises developing design-interventions through successive participatory action research cycles. The *adapt*, *visualise* and *influence* research orientations developed iteratively through these cycles, with the research questions emerging inductively through practice and solidifying through time. They therefore emerged through the “*speculative middle*” (Springgay and Truman 2018, 2), rather than beforehand as in deductive hypothesis-driven approaches.

I used a range of data collection and analysis methods under the PAR methodology to explore the three research orientations (Table 3). These encompass both collaborative and self-reflective methods in the data collection, and empirical and relational approaches in the analysis.

Table 3 - Data collection and analysis methods

Research Orientation	Data Collection Methods	Data	Data analysis Methods
<b><i>Adapt</i></b>	1) Workshop evaluation (surveys, interviews, photo and video-documenting) 2) Reflexive practice (process mapping, journaling)	1) Program, site, and workshop processes/outlines 2) Personal reflections 3) Direct participant evaluation 4) Indirect participant evaluation (responses) 5) Photo/video documentation	1) Qualitative content analysis
<b><i>Visualise</i></b>	1) Photovoice (creation practices: workshops, participant submission) 2) Reflexive practice (journaling)	1) Photo-story (image + text) 2) Personal reflections	
<b><i>Influence</i></b>	1) Photovoice (audience engagement practices: photo-elicitation in workshops, exhibition, workshop, interview) 2) Workshop evaluation (surveys, interviews, photo-documentation) 3) Reflexive practice (process mapping, journaling)	1) Photo-story responses (text, qualitative) 2) Direct participant evaluation 3) Photo/video documentation 4) Personal reflections	2) Actor network theory

### 1.2.4 Data collection

As the action-research covers both the designing of the multi-sited photovoice program, and its visual products, the photovoice practices formed the set of data collection methods, divided into two parts – *creating* photo-stories for the visualise theme (Chapter 5), and *engaging* audiences with these photo-stories for influence theme (Chapter 6).

Furthermore, these photovoice practices constituted a form of methodological data themselves for the *adapt* and *influence* orientations (Chapter 4, 6) to track how the practices evolved. I collected this methodological data using a combination of methods: collaborative (surveys, interviews), and self-reflective (process mapping, journaling), and contextualised and elaborated on these in (Chapter 3). Self-reflective practices were essential across all orientations to track my own assumptions and learnings while synthesising these with insights emerging from the PAR cycles.

### 1.2.5 Data analysis

I collected a vast amount of data using the above methods, including workshop processes, personal reflections, written participant responses, participant photo-stories, photographic and video documentation. This data spans from empirically-orientated (such as participant

responses), to more subjectively-oriented (personal reflections, photo-stories). By thinking of the exploration in terms of a “*contact zone*” (Pratt 1991, 34) between the different intersecting knowledge systems – such as environmental behaviour, and design processes – provides a way of navigating this complexity. Methodologically this invites two approaches – a broad-based empirical-realist ‘counting’ approach for a sense of overview (breadth), then a more focused relational-material ‘network’ approach to consider particular details (depth). I explore the former through qualitative content analysis (QCA), that derives patterns and themes from data (Strauss and Corbin 1994; Cho and Lee 2014), and the latter through the relational-material approach of actor-network theory (Latour 2005; Hamilton and Taylor 2017).

## 1.3 Scope and limitations

To explore the above research orientations I chose specific sites, scales, community partners and timeframes through iterative PAR cycles. I discuss in detail in Chapter 3, with a summary below.

### 1.3.1 Geography - Australia, Bangladesh, China

I selected three countries to explore the photovoice methods – Australia, Bangladesh, and China – as they represented different economic development levels, environmental impacts, and cultural differences, all which influence how environmental behaviours are both performed and perceived. To address the large variation in these measures within countries a major city was chosen in each – Melbourne, Dhaka, Beijing and Hangzhou (Figure 8).<sup>3</sup> It is important to note the research is not strictly comparative; I did not systematically compare how photovoice operates at different sites, given the changing nature of the participants and the processes. Rather, I investigated how photovoice can be adapted in a multi-sited manner, and through doing this asked – ‘What new possibilities could emerge for environmental behaviour change by taking the multiple sites into account?’ In responding I considered different spatial and temporal scales within and amongst the three sites.



Figure 8 - Country and sites (relative sizes)

<sup>3</sup> China alone had two urban sites as appropriate partner organisations could not all be located in a single site (See Chapter 3). As I did not seek to compare directly between these sites, I did not consider them to be ‘representative’ of such complexity and variation of an entire country or even city.

### 1.3.2 Spatial scales and local partners

To explore adapting photovoice at these different sites from both a *design-process* level (e.g. workshops), and the *design-product* level (e.g. photo-stories), I considered engagement on different spatial levels of engagement: *program*, *site*, and *partner*. The highest, *program-level* was the scale of the entire three-country program; next, *site-level* explored the influence of individual sites, partner organisations and other kinds of participation arising at sites; then *partner-level* explored the adaptation of the photovoice methods themselves at the workshop series scale respectively.

Table 4 - Partner organisations and activities shows a summary of partner organisations across the sites with their corresponding photovoice activities and occurrence frequency.

Table 4 - Partner organisations and activities

Country	Site	Partner	Abbreviation	Activity	Frequency
Australia	Melbourne	Livewell Yarra	Livewell	Workshop	1
		Monash University	Monash	Exhibition	1
		Mount Waverley Secondary College	MWSC	Workshop	2
		St Louis Primary School	St Louis PS	Workshop	2
		Sustainable Living Festival	SLF	Exhibition	2
		Sustainable Living Festival	SLF	Interviews	2
		Australian Religious Response to Climate Change	ARRCC	Workshop	2
		Australian Youth Climate Coalition	AYCC	Workshop	2
		Environmental Education Victoria	EEV	Workshop	1
		Monash Student Association	MSA	Interviews	1
		Monash University	Monash	Workshop	2
		Students of Sustainability	SoS	Workshop	1
		Sustainable Living Festival	SLF	Workshop	2
Bangladesh	Dhaka	Centre for Communication and Development	CPD	Workshop	4
		Independent University Bangladesh	IUB	Workshop	9
		International Centre for Climate Change and Development	ICCCAD	Workshop	4
		Jaago Foundation School Korail	Jaago-K	Workshop	11
		Jaago Foundation School Korail	Jaago-K	Exhibition	1
		Jaago Foundation School Rayer Bazar	Jaago-RB	Workshop	8
		Jaago Foundation School Rayer Bazar	Jaago-RB	Exhibition	2
		North South University	NS	Exhibition	1
		North South University	NS	Workshop	2
China	Beijing	Friends of Nature	FoN	Workshop	13
	Hangzhou	Zhejiang University of Media and Communications	ZUMC	Workshop	14
		Zhejiang University of Media and Communications	ZUMC	Exhibition	1
Totals		18			91

### 1.3.3 Temporal scales

In addition to the spatial levels, the adaptation processes occurred at various temporal levels as well – *program*, *phase*, *site*, *partner* – that served as different time durations for action-research as part of the PAR cycles. As with the spatial scale, *partner-cycles* were the shortest durations and represented photovoice workshops series run with a single partner organisation: I grouped these into *site-cycles* that represented multiple workshops series occurring at one site during a continuous engagement (field visit). I then grouped the site cycles into *phase-cycles* which represented a single aggregated type of participatory method – such as workshops, exhibitions, or interviews. Finally the *program-cycle* was the widest duration covering the whole action-research program across the three countries.

Table 5 - Program phase cycles summary

Phase Cycle	Activity	Location(s)	Site Cycles	Date(s)
<b>A</b>	Framing/conceptualising	Melbourne	1	Aug-Nov 2015
<b>B</b>	Partner scoping	Bangladesh, India, China	2	Dec 2015-Feb 2016
<b>C</b>	Photovoice workshops	Dhaka, Hangzhou, Beijing, Melbourne	2,4,6,7,10	Sept-Nov 2016, May-Nov 2017, April-August 2018
<b>D</b>	Public exhibitions	Dhaka, Hangzhou, Melbourne	3,5,17	Mar 2016, Dec 2016-April 2017, Jan-Mar 2020
<b>E</b>	Photo-story analysis	Melbourne	8,12	Dec 2017-Jan 2018, Dec 2018-Jan 2019
<b>F</b>	Interviews	Melbourne	9,13	Feb-March 2018, Feb-March 2019
<b>G</b>	Photovoice dialogue	Melbourne, Dhaka	10,11	April-Aug 2018
<b>H</b>	Community action projects	Dhaka	15	July 2019
<b>I</b>	Synthesis	Melbourne	14,16	August-Nov 2019

I was able to discern insights into adapting the photovoice methods through grouping and analysing along these spatial/temporal levels. A key discovery was deriving a basic model for multi-sited photovoice action-research – ‘*open photovoice*’ – as it emerged across the research period 2016-2019 (Figure 9 below). The circles represent the aggregated phases-cycles: yellow for *adapt*, green for *visualise*, and pink for *influence*, under the timeline. As the top-level overview of the research, this diagram serves as a key orienting feature that I will return to throughout the exegesis.

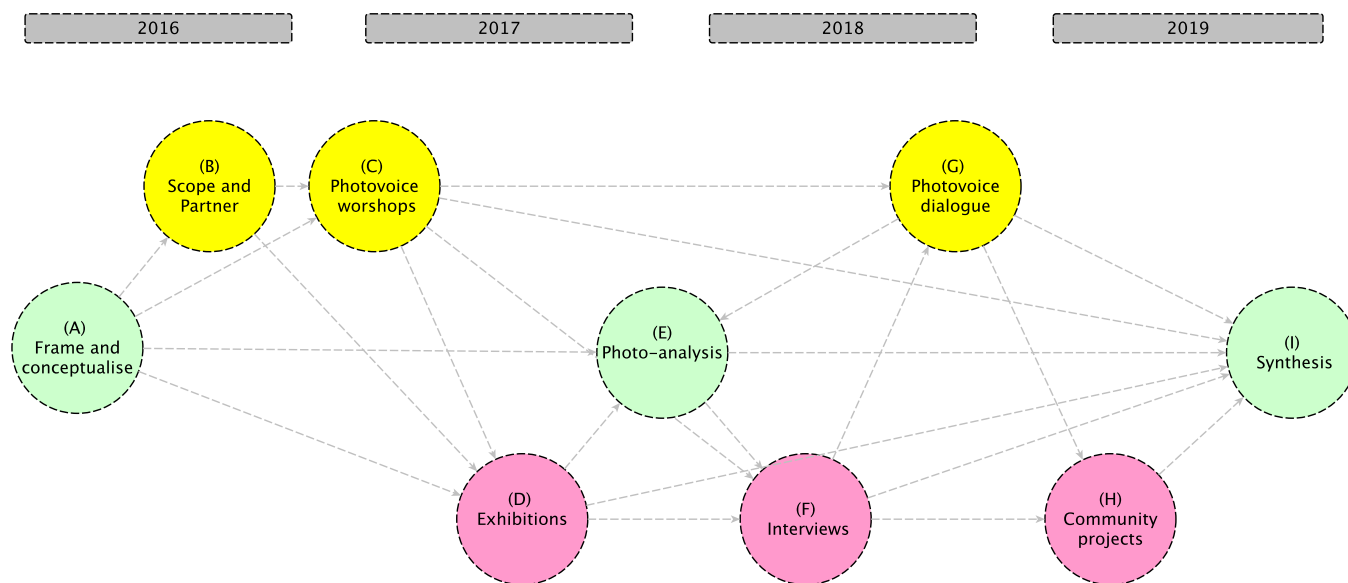


Figure 9 - Multi-sited photovoice program

### 1.3.4 Youth participation and ethics

I recruited participants for the photovoice workshops through the local partner organisations in accordance with PAR best practice (Chevalier and Buckles 2013). Through this collaboration I identified *youth* – specifically primary, secondary, and tertiary levels – as the specific target groups, due to young people’s social marginalisation in general (Thomson 2009; Delgado 2015) and their specific stake in environmental issues (Katz-Gerro, et al. 2015; Trott 2017). As collaboration with local partners progressed through the project I began to see participation more broadly and identified a range of other participation channels – including partner organisations, volunteers, mentors, interns and coordinators.

Ethical considerations in participation, representation and risk are essential to consider in photovoice (Wang and Redwood-Jones 2001; Harley 2012). Addressing these on an overall program-level meant keeping the program design in close dialogue with locally-situated partner organisations to best ensure local relevance, benefits and risk-minimisation. On a workshop level I followed and expanded on photovoice ethical practices (Wang and Redwood-Jones 2001; Latz 2017), and addressed novel ethical issues arising from the multi-sited context. These included the key issue of limited engagement time at each site, which I responded to by designing pathways for past participants to return and be involved in subsequent workshop cycles.

### 1.3.5 Research Contributions

I used practice-based experimentation through this participatory action research to contribute to knowledge primarily in *visual research methods*, and secondarily in *environmental behaviour*. Through the first *adapt* orientation I developed a flexible model for a multi-sited photovoice program including partnership development principles and photovoice workshop processes. Through the second *visualise* orientation I developed a mixed-method approach to analysing the photo-story outputs of these photovoice processes, that both validated their effectiveness and provided expanded perspectives on the role of both *agency* and *subjectivity* in environmental behaviour. Finally, I developed through the third *influence* orientation methods for multi-sited audience engagement through the photo-stories, including *exhibition*, *interview* and *collaborative* projects. These contributions can be collectively considered as components of an *open photovoice* method, discussed in the findings and concluding chapters.

### 1.3.6 Limitations

An inquiry of this breadth necessarily has key limitations to retain focus. A first limitation is that while the research employs PAR as a methodological approach with a variety of data collection methods, I focus specifically on adapting photovoice; detailed discussion of PAR itself or non-photovoice methods are outside the inquiry's scope. Secondly, the *adapt*, *visualise* and *influence* research orientations are explored to the extent of this methodological contribution; while I do draw upon quantified results from time to time, using basic statistical concepts such as significance (James, et al. 2013),<sup>4</sup> detailed analysis or quantification of these falls outside the scope. Thirdly, although the research focuses on multi-sited photovoice, it is from a design-methodological, rather than an ethnographic perspective; thus developing analysis regarding the site-specific cultural dimensions of environmental behaviour or visual culture also falls outside the inquiry.

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<sup>4</sup> I recognise the complexity and limitations of such statistical approaches (Goodman 2008) and draw on alternative evidence where possible.

## 1.4 Exegesis structure, navigation and voice

Following this overview chapter, the rest of the exegesis is structured as follows: Chapter 2 *Literature Review* provides detailed theoretical justification for the action-research in two parts, highlighting limitations of both conventional environmental and participatory photography to affect environmental behaviour and establishing a compelling case to investigate multi-sited photovoice. Chapter 3 *Methodology and Methods* introduces participatory action research as the inquiry's methodological framework, explicating the data collection and analysis methods used in the research, and the methodological orientations at program and site levels. I then present and discuss the action-research results using a mixed-methods content and relational analysis across the three *findings* chapters<sup>5</sup> – with Chapter 4 Findings A *Designing multi-sited photovoice* reporting on the design approaches used to *adapt* photovoice methods to a multi-sited context, Chapter 5 Findings B *Photo-story analysis* explicating how the resulting photo-stories *visualised* environmental behaviour through their visual analysis, and Chapter 6 Findings C *Photo-story audience engagement* chronicling the design approaches I used to develop photo-story audience engagement methods in order to *influence* environmental behaviour. Chapter 7 *Conclusions* synthesises and discusses these findings while highlighting the specific contributions in the field and outlining opportunities for future research.<sup>6</sup>

As my own position during the action-research moved across various roles – including *designer, facilitator, curator, and coordinator* – the voice I employ changes throughout this exegesis. I use the first person primarily when describing methods I develop myself or in collaboration with others, and when reflecting on my own positionality within the research, and third person at other times.<sup>7</sup>

Participant voices appear through this exegesis in the form of photo-stories and responses recorded through workshops and interview. To preserve their voices I present these unedited where possible.<sup>8</sup> I have also included participant photo-stories, together with matching written responses to these specific stories – collected from other participants during interviews

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<sup>5</sup> Although presented sequentially, the three research orientations unfolded in non-linear ways, and therefore can be approached out of sequence.

<sup>6</sup> In terms of the multi-sited photovoice program (Figure 4), Chapters 1-3 are located as part of the green phase-cycle A, Chapter 4 covers the yellow B, C, G, Chapter 5 covers green phase-cycle E, Chapter 6 covers the pink phase-cycles D, F, H, and Chapter 7 covers synthesis.

<sup>7</sup> I use 'I' instead of 'we' as both collaborators and extent of collaboration change through the inquiry, while my presence remains throughout.

<sup>8</sup> A very small minority of participant statements were edited for brevity, indicated by ellipsis (...). English translations are used where the participants statement was written in another language.

and workshops – between each chapter of this exegesis in order to provide an unmediated visual and participatory background context in which to contextualise this research narrative.<sup>9</sup>

## 1.5 Chapter summary

This introductory chapter has signposted the key background, thematic, methodological, and spatial/temporal context situating this exploration, together with an overview and pathway through this exegesis. To explore how photovoice methods can be adapted to visualise and influence environmental behaviour in a global context necessitates commitment to a multi-sited participatory action research methodology, that positions the inquiry to proceed through a series of action-reflection learning cycles at various spatial-temporal scales. As environmental behaviour falls within the ‘contact zone’ between empirical and relational ways of knowing, these cycles use complementary empirical-realist and relational-material analysis to explore the emergent methods and data. The next chapter provides conceptual context to situate the environmental behaviour change theme and the participatory photographic methods used in the exploration.

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<sup>9</sup> Some of these are also separately analysed within the text at appropriate places; these bare no intentional relationship to the other photo-stories. I present them specifically in between sections to give space to these direct stories amongst the otherwise monolithic action-research narrative.



In the park, a man is picking up rubbish in the corner. No one is seeing him. But he is seriously doing the common work. Thanks him for his selfless. Hope more and more people will do the same things like him. (photographer, Hangzhou, China)

*"This photo-story reflect the image of selfless love and affection for the mother nature. Because environment has their own instinct value so for the sake of nature we should to keep neat and clean our environment. Which will make peoples life healthy and living more comfortable." (responder, Dhaka, Bangladesh*

## Chapter 2 - Literature Review

In this chapter I provide the rationale and theoretical background for my action-research journey in two parts: Part A introduces and contextualises environmental behaviour, discussing barriers to behaviour change together with both the opportunities and limitations of overcoming these using conventional photography. Part B introduces and situates photovoice methods as a potential response to these constraints, outlining the rationale for bringing multi-sited dimensions to these participatory methods.

## 2.1 Part A - Visualising environmental behaviour

### 2.1.1 *Introduction*

In this part I provide the historical, cultural and theoretical background to the relationship between photography and environmental behaviour. Photography can be a powerful means of addressing the various psychological barriers that inhibit environmental behaviour. However, conventional environmental photography has key limitations, such as relying on polarised emotions of hope and fear; where the negativity-bias of the former can disempower viewers from taking environmental action, while the generic nature and technological emphasis of the latter can exclude local realities.

### 2.1.2 *Situating environmental behaviour*

#### 2.1.2.1 Rationale, definition and context

Although a healthy natural environment is foundational for economic prosperity and human wellbeing (UN-Environment 2019; Whitmee et al. 2015) as well as of intrinsic ontological worth (Naess 1973), global environmental crises – including biodiversity loss, climate change, deforestation, air and water pollution – threaten both (Steffen, et al. 2015; Klein 2015). While environmental behaviour takes place over a range of scales spanning from government and organisational to individual levels (Crompton & Kasser, 2009), I focus on exploring individual-level environmental behaviours due to the grassroots-basis of the participatory photovoice approach,<sup>10</sup> and the influence of grassroots behaviour on broader environmental change.<sup>11</sup>

Environmental behaviour can describe actions individuals take to minimise their environmental impact, such as reducing energy consumption, recycling, or purchasing organic

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<sup>10</sup> While structural or macro-level constraints (government policy, lack of green products) constrain individual environmental behaviour (Roberts and Bacon 1997), these structural levels remain outside the explicit scope of this photovoice inquiry.

<sup>11</sup> This may be through formal or activist political processes, consumer behaviour, or social license to operate, as well as directly reducing household and community environmental impact (Clayton, et al. 2015; Crompton and Kasser 2009; Gunningham, Kagan, and Thornton 2004).

food (Kollmuss and Agyeman 2002), and I take Stern's (2000) expanded definition of the concept that includes individuals also taking public sphere actions, such as political advocacy or supporting environmental organisations.<sup>12</sup>

However, such environmental behaviour does not occur on its own; it is part of the broader concept of environmental engagement, which includes the interrelated areas of cognition, attitude, and behaviour (Trott 2017). Manzo (2010) defines engagement as taking place in the overlapping planes of cognition (knowledge), affect (interest in and concern about the issue), and behaviour (personal engagement and motivations to act). Lester (2010) also defines engagement along those three planes, introducing a gradation in intensity of engagement with *interest* in an issue being the most superficial form of engagement, *emotional* involvement being greater, and taking *action* being the fullest form. While the relationships between *awareness*, *affect* and *behaviour* is a complex and active research area (Doherty 2014; McKenzie-Mohr 2011; Kollmuss and Agyeman 2002), I draw upon these simplified concepts in considering environmental behaviour and photovoice methods.

### **Box 1 - Relationship between environment and climate change**

The project's initial focus was on visualising climate change mitigation; this was broadened to visualising environmental behaviour due to difficulties communicating climate change to younger audiences (Chapter 4). As climate change is a subset of global environmental issues (UN-Environment 2019), and as theories of climate change engagement have expanded on those of environmental behaviour (Hansen and Cox 2015), henceforth I will use the term environment behaviour as including both environmental and climate change solutions.

<sup>12</sup> Stern (2000) differentiates between *activist* behaviours (involvement in environmental organisations and direct political advocacy), *non-activist in public sphere behaviours* (participation in existing political processes or support pro-environmental policy), *organisational* (pro environmental behaviours within organisations) and *private sphere* (purchase, use and disposal of products with environmental impacts).

### 2.1.1.2.2 Theoretical approaches to environmental behaviour

Understanding theoretical approaches to environmental behaviour can help contextualise the specific perceptual barriers that can inhibit the effective visualisation of such behaviours. I briefly outline key behaviour change approaches including information-deficit, social marketing and social practices.

#### *Box 2 - Use of the terms 'nature' and 'environment'*

It is essential to recognise the contested and constructed notions of these terms in this study. Rather than something essential or necessarily external, our ideas of 'nature' are culturally determined (Eder and Ritter 1996; Ginn and Demeritt 2009), with definitions of nature and the environment grounded in the various symbols which different cultural groups use to transform external nature into meaningful subjective phenomena (Greider and Garkovich 1994; Soper 1998). This is pertinent in this inquiry as it involves exploration of how participants from different cultural contexts visualise nature; however, coming from a methodological focus, a deeper analysis of these constructions themselves is outside its scope.

'Information-deficit' approaches tend to attribute behaviour change to providing compelling information from which individuals form a basis for behaviour (Cone 2008). Information alone, however, is rarely sufficient for change (Rajecki 1982) and, in addition, its provision can actually reduce likelihood of personal action - for instance knowledge of environmental impacts leading to a perception that the situation is hopeless, and hence any positive actions ineffectual (Cohen and Murphy 2001). Underpinning these approaches is the assumption that people act as independent rational individuals – neglecting powerful emotional, social and ideological influences (Kollmuss and Agyeman 2002).

An alternative, the 'social marketing' approach, includes some of these influences, engaging people based on their inferred values and extrinsic motivations, generating change by encouraging people to adopt specific behaviours consistent with the former (Jackson 2005). However, this approach typically reduces the complexities of human behaviour to individual self-interested behaviour (Crompton 2008). While it has been successful in encouraging the short term take up of individual behaviours (Figure 10, right-side blue actions), it has largely failed to consistently translate these small steps into the larger ones (Figure 10, left-side green actions) that are required for transformational structural change (Crompton 2008, Thøgersen 1999).

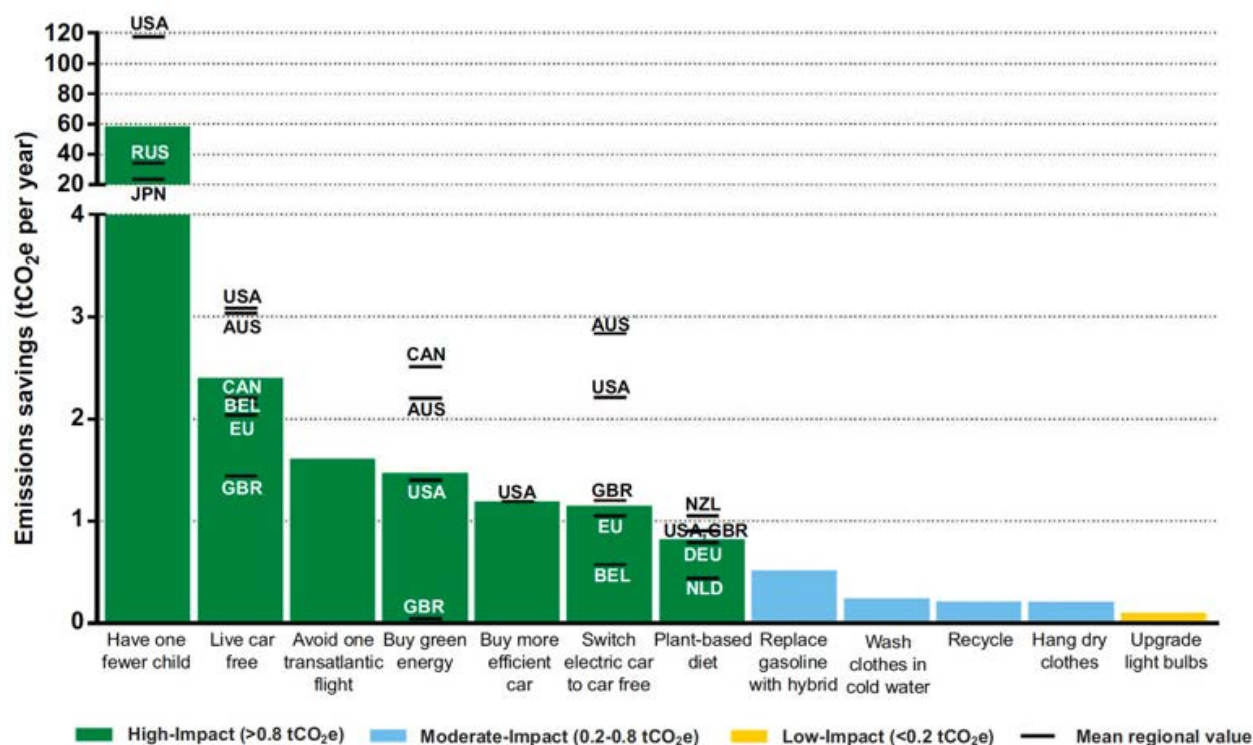


Figure 10 - Environmental behaviours and their associated impacts (Wynes and Nicholas 2017, 4)

A third strand, the ‘social practices’ approach, forms a newer alternative to the information-deficit or social marketing approaches. Social practice theory conceives of practice as “... *embodied, materially mediated arrays of human activity centrally organized around practical understanding*” (Cetina, Schatzki, and Von Savigny 2005, 2). As such environmental behaviours as practices are performed in complex iterative and material relationships with the surrounding environment, rather than arising from the cognitive or self-interested attitude of the individual alone. These practices are performed ‘in place’, as a “*constellation of processes*” (Massey and Massey 2005, 141). Pink (2013) uses sensory ethnographic methods to explore how repetitive material practices influence notions of how ‘home’ and ‘comfort’ are experienced by participants and the subsequent environmental implications. This emphasis on practice in ‘place’, paying attention to materiality and relationality, provides a useful perspective to consider the multi-sited dimensions of environmental behaviours, as well as an invitation to consider relational approaches in its analysis (Chapter 4).

However despite the growing literature and sophistication of behaviour change models (Jackson 2005; Van der Linden, Maibach, and Leiserowitz 2015), public behaviour change programs still tend to be based on a variant of these above approaches, particularly the information-deficit and social marketing varieties (Kollmuss and Agyeman 2002). They also tend to advocate for simple ‘silver bullet’ approaches, where undertaking behaviour change comes in the form of a generic list of individualised environment behaviours (Crompton 2008), such as those on the right side of Figure 10, or some of the small scale individual actions in (Figure 11) which rarely address the highest impact behaviour such as diet or reproductive choices (Wynes and Nicholas 2017).

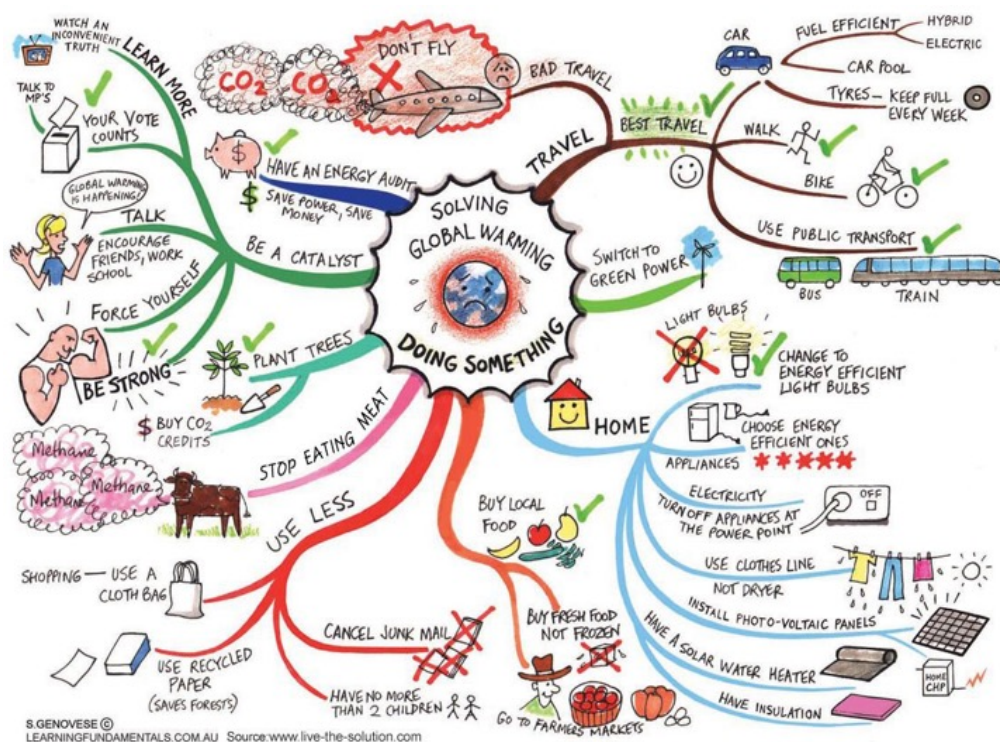


Figure 11- Individual environmental behaviours (Sheppard 2012, 328)

Yet over three decades after it was first discussed, the gap between knowledge, attitudes and awareness is still stubbornly present (Terlau and Hirsch 2015). It is perhaps unsurprising that despite the growing visibility of these positive environmental behaviours, public awareness of environmental issues, and increasing use of the above behaviour change models, effective individual responses have not been up to the scale required (UN-Environment 2019).

The ramifications of this gap are profound both environmentally and socially. Environmentally, the ecological crisis has worsened despite growing awareness (Steffen, et al. 2015). Socially there has been evidence for an increase in ‘issue-fatigue’ – people becoming disengaged with environmental issues due to repeated exposure (Morrison, Parton, and Hine 2018). One key explanation comes from psychological barriers to behaviour (Adger, et al. 2009), discussed below.

### 2.1.2.3 Psychological barriers to environmental behaviour

Sheppard (2012), and Moser and Dilling (2006) discuss three key psychological barriers to acting on environment and climate change issues: *cognitive*, *emotional*, and *behavioural*.

Firstly, *cognitive* barriers can block people from recognising that environmental impacts are issues in the first place. *Denial* is a common attitude – to ignore risks and perceive that something is not happening, or happening to a far lesser extent than scientifically observed. *Confusion* can arise from media reports that tend to grossly over-report the uncertainty in issues such as climate change.<sup>13</sup> If the environmental issue is perceived to be happening, it is often presented as a far-off issue that is *not personally relevant* (Vermeulen and Kok 2013), with people commonly judging it as unimportant to their lives, even if they view the issue as serious overall (Moser and Dilling 2006).

Secondly, if the environmental risk is actually perceived, then *emotional barriers* can subsequently influence thought or action about the issue. In particular fear can block people from taking action (O'Neill, et al. 2013). For instance while films such as *An Inconvenient Truth* have used fear to successfully raise awareness about climate change science, this does not necessarily translate into actual behaviour change due to fear overwhelming participants and hence inhibiting action (Dilling and Moser 2004; Nolan 2010).<sup>14</sup>

Thirdly, even if such cognitive and emotional barriers are surmounted, *behavioural* barriers can then impede action. These may include believing an individual's behaviour is too insignificant to make a difference (Kollmuss and Agyeman 2002) or viewing behaviour change as others' responsibility – such as industry or government (Vermeulen and Kok 2013). Doherty (2014) demonstrates that enabling factors such as heightened perceptions of self-efficacy ('my efforts count') and descriptive social norms ('I'm not alone; others are getting involved') are crucial when transitioning from a fear-based state to actually taking action.

Having outlined these barriers, I now focus on the extent to which environmental visualisation – specifically photography – can respond to such challenges.

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<sup>13</sup> This tends to be through giving disproportionate exposure to the minority dissenting views (estimated at <3%) of climate scientists denying anthropogenic climate change (Weaver 2010).

<sup>14</sup> In one study on student viewers of the film, a one month post-viewing follow-up survey showed that although students expressed a willingness to take action immediately after viewing the film, this did not necessarily translate into actual environmental behaviour (Nolan 2010).

### 2.1.3 *Environmental visualisation and photography - why seeing matters*

The visual is arguably the most dominant sense in contemporary Western culture, where it is common to equate *seeing* with *knowing* (Doyle 2007). Visual media can create powerful experiences that can influence emotions, thoughts and behaviours, and the accompanying vivid mental images can also inspire environmental behaviour change (Sheppard 2012). Images do not face linguistic barriers like text and can move directly across cultures and language, although how they are seen is culturally influenced (Jenks 1995). Thus visualisation can be a powerful form of communicating social issues.

Environmental visualisation can address some of the barriers affecting environmental behaviour change. Visual information has been shown to increase engagement, enhance learning and strengthen people's understanding of complex environmental issues (Winn 1997), and in addition influence environmental behaviours if the images are vivid, personal, and concrete (McKenzie-Mohr 2011). It can also stimulate peoples' imagination regarding future solutions (Dulic, Angel, and Sheppard 2016). Out of the wide range of typical environmental visualisations – including photography, illustration, cartography, diagramming, and 3D (O'Neill and Smith 2014), I focus on photography firstly as it is most prevalent and has the highest impact (Schneider and Nocke 2014), and secondly as it forms my own practice as a freelance photographer and photovoice practitioner.

Photography has long been influential in communicating social justice and environmental issues (DeLuca and Demo 2000). Its social significance and iconic power together with its ability to cross linguistic and cultural barriers make it an ideal tool for environmental behaviour change (de las Casas 2012). Photographs are often perceived as 'speaking the truth', rather than a specific cultural, social, and historical way of seeing (Urry 1992).<sup>15</sup> However, capturing and representing images photographically always involves construction and framing of meaning (Nurmis and Paulina 2017; Rose 2016; Allen 2011).<sup>16</sup> An image, compared to text alone, therefore has the ability to directly engage and concentrate human perception through these qualities. However, its actual use in contemporary environmental communication can often be limiting, as explored below across different channels.

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<sup>15</sup> Messaris and Abraham (2001) assert photography's 'truth-making' power over other visual forms arises in three ways: firstly, unlike drawings or paintings, they appear indexical to reality - rather than being viewed as a particular version of reality; secondly they are analogical – their meaning is constructed through resemblance with their referent object, rather than arbitrary associations; thirdly there is no explicit propositional syntax between images as there is between words.

<sup>16</sup> Indeed, photographs can directly activate the brain's experiential processing system, potentially circumventing the analytical, reflective system, which may draw attention to this 'constructedness' (Nurmis and Paulina 2017).

## 2.1.4 *Limitations with environmental photography*

### 2.1.4.1 Media

Studies of environmental photography in the media space have been growing over the last decade, exploring predominantly UK, US and Australian examples, while there is a small but growing number in non-Western locations (Moser 2016). O'Neill and Smith (2014) conducted a useful review of climate change images in global media, finding considerable quantity and diversity, with a focus on well-known identified people (politicians, scientists, and celebrities), human causes (often through iconic images such as smokestacks), and the resulting local and global impacts. Importantly they found images of positive responses to climate change appeared only rarely: for instance less than 7% of coverage in UK, Australian, or US newspapers pictured adaptation or mitigation activities – underscoring the dominance and attraction of ‘fear-based’ images.

Providing a local, grounded context to environmental images can be important to reduce their diffuse impact to specific levels that people can actually engage with (Priest 2016). Yet media images are often decontextualized and without local referents (Hansen and Machin 2013). For instance, Linder (2006) found that TV and print images of environment and climate change showed “*a preference for aesthetically pleasing, natural settings... They show an affinity for nature, at least the placid, picturesque kind, combined with a sense of detachment . . . [and] myths of unspoiled wilderness.*” (113). Similarly, environmental images in television news tended to rely on generalized, iconic images, rather than specific representations compared with other global issues (Lester and Cottle 2009) – perhaps unsurprising given the picturesque aesthetic heritage of environmental photography (Heine 2014). Consequently, there is a gap in the presence of locally-grounded, solutions-focussed environmental photography.

### 2.1.4.2 Non-government organisations

Non-government organisations (NGOs) have been pioneers in using photography for social and environmental issues for their advocacy work (O'Neill and Smith 2014). Key themes include campaign promotion, documentation of impacts, and representations of solidarity and vulnerability. One distinction between the use of images in such NGO campaigns is whether their emphasis is specifically on individual behaviour change or publicising environmental impacts, with the latter attempting to engage broader advocacy behaviour from individuals as citizens, rather than simply consumers (Manzo 2010).

However, this can be problematic - for instance Doyle (2007) examines Greenpeace's climate imagery in the late 1990s and early 2000s (Figure 12), arguing that the latter's emphasis on photographic documentation showing climate change through glacial retreat unwittingly reinforces the assumption that environmental problems must be visible to be worthy of attention. She also finds their campaign photography to be aestheticised and generic – reinforcing the issue of the absence of locally relevant content in environmental photography.

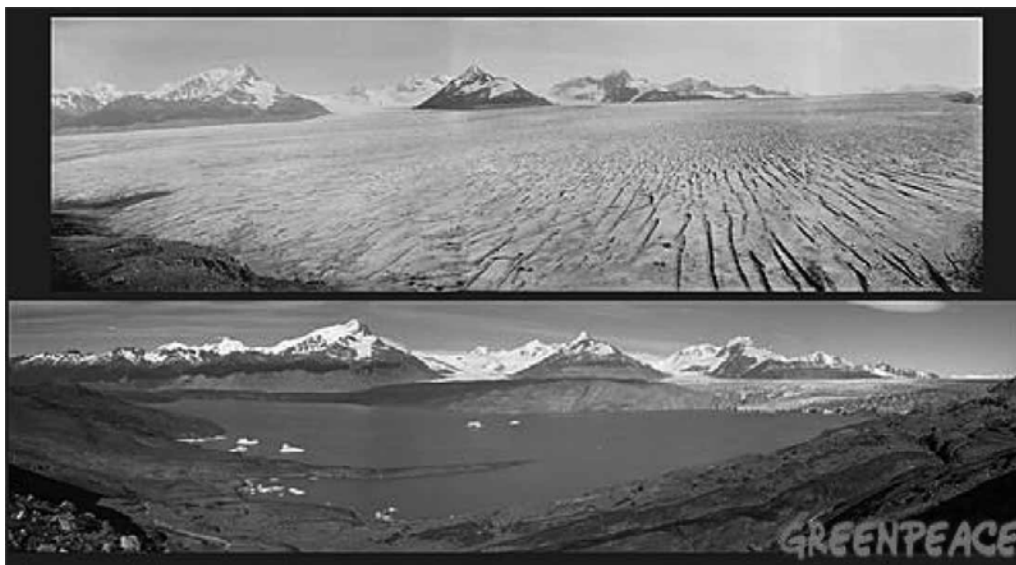


Figure 12 - Greenpeace image showing comparative photographs of glaciers. Reproduced in (Doyle 2007, 130)

Another issue is that of representing vulnerability as a key part of NGO-generated photography, since such discourses can reproduce neo-colonial and paternalistic attitudes (Allen and Skelton 2005). For instance, while images of vulnerable people can be part of a global solidarity narrative, they can also unwittingly reproduce “*colonial visions of a superior global north and an inferior south*” (Manzo 2008, 636). Manzo (2010) considers two photographic examples from Christian Aid UK which explicitly provide alternatives. In (Figure 13) and (Figure 14), the subjects speak directly to the Western viewer from vulnerable positions, advocating for individual and political change respectively, with the satire providing a way of minimising the psychological barrier between subject and viewer (most likely in this case to be guilt or denial).

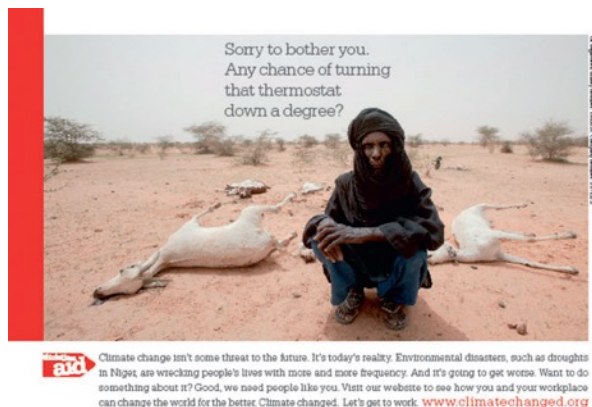


Figure 13 - Christian Aid UK image 1 (Manzo 2010, 14)



Figure 14 - Christian Aid UK image 2 (Manzo 2010, 14)

The above examples further demonstrate the need for locally grounded, solutions-based images, and in addition highlight the importance of critical engagement and local authorship in environmental photography to avoid risks of paternalism.

### 2.1.4.3 Advertising and Marketing

Environmental photography has long been used by commercial marketing to link products with positive associations with nature (Todd 2004). Most of these images tend to promote stylised, desirable images without local context (Hansen and Machin 2013). Increasingly, commercial photography is sourced from image libraries such as Getty – the world's largest supplier of stock images. Hansen and Machin's (2008) analysis of Getty images found their 'Green Collection' to be similarly generalised and iconic, arguing that this unhelpfully distances viewers from the actual environmental issues at hand, while rendering nature as abstract.

### 2.1.4.4 Art

The environment has long been the topic of art photography, with 19<sup>th</sup> and early 20<sup>th</sup> century focus on capturing the pristine beauty of 'untouched' nature in need of preservation (Corbett 2006; Elliot 2013). By mid-20<sup>th</sup> century photographers were transitioning from documenting wilderness preservation to the prevention of contemporary environmental destruction, with growing emphasis on the negative impacts of modernity on the environment (Seelig 2015).

The rise in public consciousness of climate change since the 21<sup>st</sup> century has seen a resurgence of environmental art photography (O'Neill and Smith 2014). However, these images still tend to rely on the previous picturesque forms and visual conventions. In addition, aside from its content, the form of environmental art photography itself tends to privilege the position of the artist – just like the photo-journalist – to mediate environmental knowledge, rather than more participatory forms of image generation that I discuss in Part B.

## 2.1.5 *Emotions in environmental photography*

The above review of environmental photography emphasises the persistent lacuna in critically-engaged, local representations. To explore the role of the previously identified emotional barriers within visual representation, I turn to the emotional content of environmental photography, in particular the two common themes of fear and hope.

### 2.1.5.1 Fear

Fear is a powerful basic emotion that accompanies environmental photography through its tendency to focus on impacts (Smith and Joffe 2009; DiFrancesco and Darryn 2011). Famous images such as Greenpeace's anti-sealing photograph (Figure 15), can become iconic and part of a collective audience memory with repeated exposure (Schneider and Nocke 2014).



Figure 15 - Greenpeace's iconic anti-sealing photograph (Bradley 2016)

While these kinds of impact-themed photography may increase the perception of an environmental issue's *saliency*, they can actually decrease people's perception of *self-efficacy* – their perceived ability to effect change (O'Neill and Nicholson-Cole 2009; O'Neill 2013; Nurmis and Paulina 2017). Such 'fear-based' approaches may be further limited by desensitising people to such images over time, as well as reducing trust with the communicating source (O'Neill and Nicholson-Cole 2009). Indeed, Cottle (2008) warns that such 'spectacular' images of environment issues may cause us to become "*voyeurs only of impending catastrophe.*" (91) – implying the more aesthetically powerful a photograph is, the more passivity it may induce in the viewer's response.

### 2.1.5.2 Hope

Hope or inspiration themed environmental photography has a long history back to landscape painting and notions of the sublime (Heine 2014). In the epic landscapes of Ansel Adams for example "*the environment becomes a place of being-with the earth*" (Giblett 2009, 787), with photographs often without human presence, implying the natural world is larger than human impacts (Munro 2012), or separate from us. Photographic representations of pristine forms of wilderness locate their worthiness of protection solely in their aesthetic beauty. They are frequently used to generate awareness around environmental protection, such as Peter Dombrovskis's iconic image *Morning Mist* (Figure 16), which the Tasmanian Wilderness Society used extensively in the Franklin River conservation campaign.



Figure 16 - *Morning Mist* (Drew 2015)

While these photographic forms have a high impact and resonance with viewers, they tend to emphasise nature being separate to humans, which may invalidate indigenous perspectives and delegitimise urban environmental initiatives (Morton 2007). They also may perpetuate certain stylised aesthetic conventions of natural beauty, excluding ecologically important yet un-picturesque forms such as grasslands or wetlands (Nurmis and Paulina 2017).

In addition to this, research suggests the positive benefits of photographs of specific environmental behaviour. For instance, Hespanha (2011) found that participants exposed to images of environmental action (including photographs of a climate protest, international leaders signing an agreement, people installing solar panels) were correlated with experiencing positive emotions. Similarly Hart and Feldman (2016) found that participants responding to climate change photographs saw that those visualising personal mitigative behaviours and positive futures promoted feelings of self-efficacy, whereas impact related images did not.

Such positive-themed photographs nevertheless often show only a limited type of content compared to the representation of impacts. They show predominantly technological solutions (DiFrancesco and Darryn 2011), or isolated environmental behaviours missing relational or contextual meanings (O'Neill and Smith 2014) – that may provide deeper narratives and opportunities for audience engagement (Figure 17).



Figure 17 - Photovoice workshop slide from current study<sup>17</sup>

<sup>17</sup> This workshop slide was used in the ideation stage to demonstrate the limitations of current positive environmental photographs, see Chapter 4 for further discussion.

### 2.1.6 Summary

I have demonstrated how mainstream environmental photography has key limitations in influencing environmental behaviour change. Common media images are negatively themed which tends to provoke fear and thus decrease their effectiveness due to psychological barriers, while the minority that do actually show positive themes are usually generic and limited to visualising technology without localised context. The visual forms of the main types of *photo-journalistic*, *marketing* or *advocacy* photography tend to be professionally composed, which provide high visual impact, but can lead to a repetition of generic types - especially with increasing use on centralised image databases – while also encouraging viewer passivity. There is thus significant potential for locally-grounded environmental photography alternatives to better influence environmental behaviour.



Nature always ready to show its beauty to us but are we ready to share our care for nature? Plants are always ready to host life but are we ready to host plants? (photographer, Dhaka, Bangladesh)

*"It is inspiring me to get out into nature... we take it for granted that we always will have nature, but here there are so many threats... the wall shows human threat to nature, nature responding. I'd love to know more about the story behind the photo... what active steps they are taking to reduce their impact, I like learning from inspiring people."*  
 (responder, Melbourne, Australia)

## 2.2 Part B - Multi-sited environmental photovoice

### 2.2.1 *Introduction*

Participatory photography such as photovoice offers an inviting approach to overcoming the above barriers – combining photography and group work to give people opportunities to record and reflect on their local context. These locally-grounded environmental photographs and stories open up deeper engagement with the complexities of nature-culture relations, while empowering the participant-photographers. However, this specifically local focus can actually neglect both the global dimensions of environmental issues as well as the global opportunities for empathetic engagement with other photo-stories and their participants. I survey these limitations in relevant theory and practice-based research to demonstrate this clear gap in the field and establish a case for exploring multi-sited environmental photovoice methods.

### 2.2.2 *Photovoice*

Participatory photography, or photovoice, shifts image production from the hands of external professionals to that of local laypeople to democratise storytelling and explore community-specific representations. In my own experience as a photovoice practitioner I know intimately of photovoice's capabilities to facilitate powerful environmental storytelling, as well as its limitations; in the sections below I contextualise this in the literature.

#### 2.2.2.1 *Theoretical background and context*

Photovoice methods encompass a wide-ranging field of participatory photography practices centring on empowerment, local knowledge, and advocacy (Delgado 2015; Hergenrather, et al. 2009). It can be defined as a participatory research methodology where contributors document and share aspects of their lives or community through taking photographs, which then, through participatory processes, become sites for storytelling, critical reflection, and broader social or policy engagement with issues affecting them (Wang and Burris 1994; Wang 1999). The main goals of photovoice include: firstly to support participants to photographically document and represent their own, or their community's, strengths and concerns; secondly to promote critical

dialogue and knowledge through group discussion of images; thirdly, to reach policymakers in the hope of broader positive change (Wang and Burris 1997). Photovoice is a highly flexible method that has been used by a broad range of groups across a wide variety of themes and goals (Strack, Magill, and McDonagh 2004; Wang and Redwood-Jones 2001).

Photovoice is employed as a form of PAR that has theoretical foundations in feminism, critical pedagogy, and documentary photography (Latz 2017). PAR can be characterised by shared ownership of research, community-oriented understanding of social problems, and an alignment towards community action (Kemmis and McTaggart 2005). I undertake a deeper discussion of PAR in the methodology section and briefly discuss other influences below.

Wang and Burris's (1997) seminal photovoice inquiry with marginalised rural women in south west China used a feminist approach, with the authors noting that “*feminist theory and practice has shed light on the male bias that has influenced participatory research*” (370). While feminist social research theories are both exceedingly broad and without consensus (Reinharz and Davidman 1992), common themes among most iterations include the importance of gender equity and working against oppression (Brisolara, Seigart, and SenGupta 2014), and that “*feminist methodologies pay close attention to the ethical, policy, and political consequences of the practice of inquiry*” (20). This implies that a close attention in the research to the process of photovoice is important, rather than just its output.

Freire's (1970) theory of critical consciousness posits that participants who critically reflect on their lived reality – and the power-relationships within – build the foundations of empowerment and potential to create local solutions (Wallerstein and Bernstein 1988). While Freire invited participants to use drawing to show their social realities; in photovoice, photographs take this role. Photovoice takes “[Freire’s] concept one step further so that the images of the community are made by the people themselves” (Wang and Burris 1997, 370). The implication for the environmental behaviour change context is to value local environmental knowledge and solutions.

Documentary photography has long been used to raise awareness about social issues (Sontag 2001; Latz 2017), with the photographer traditionally being a detached, ‘neutral’ outsider to their subjects and settings. Ewald's (1985) work with children, and Hubbard (1994) with Native American youth, provided innovative models of participatory documentary photography, which recognised that those within the group or culture being documented have uniquely placed insights in seeing their own world – and representing their own stories – which should be valued independently of technical photography skills. This remains a core photovoice principle and one taken into the present inquiry.

### 2.2.2.2 Environmental photovoice – learnings and opportunities

With these participatory foundations and principles emphasising the critical importance of local stories, photovoice methods present a key opportunity to respond to the limitations of conventional environmental photography. Photovoice facilitates storytelling, which as a form of “*narrative communication*” (Hinyard and Kreuter 2007, 778), can be effective at mobilising behaviour change as it engages audiences through both cognitive and affective domains (Pasupa and Pasupa 2017).

However, while since its inception there has been a rapid expansion in the use of photovoice across health, gender, trauma, sexuality, disability, and place-identity domains (Lal, Jarus, and Suto 2012), the method is only recently emerging as a process to explore human-environment interactions, with the number of studies remaining minimal (Bennett and Dearden 2013). Such environmental photovoice generally falls into three thematic areas; environmental health, conservation, and environmental engagement. I consider a selection of these below, with special attention to inquiries with explicit methodological experimentation.

The first environmental health area brings an environmental perspective to participant health, where studies typically focus on water or sanitation. Davis, Javernick-Will, and Cook (2018) conclude that photovoice’s effectiveness is enhanced when combined with interviews in the context of assessing resource-limited communities’ sanitation needs in India. Likewise Levison, et al. (2012) asserts that photovoice and community mapping methods support each other in investigating the water-health nexus in rural Kenya. Finally Virgi and Mitchell (2011) uses photovoice to explore the potential for girls in Mozambique to visualise and express their sanitation needs to policy stakeholders. Considered together, this literature suggests that both mixed-methods and advocacy may enhance the effectiveness of photovoice practice.

The second conservation-based photovoice research tends to include ethnographically-orientated studies exploring specific cultural relations to environment and place. Beh (2011) highlights the importance of engaging a broad range of community stakeholders to increase the effectiveness of photovoice in place and conservation education in Kenya. Bennett (2013) finds that photovoice is effective at engaging across multiple communities to explore local adaptive capacity in coastal Thailand to a changing climate. Petheram (2011) extends this multi-sited approach, using photovoice to explore communities’ relationships to natural resource management in Vietnam and Australia. Finally Margulies (2019) highlights the potential for photovoice to reveal the affective, more-than-human dimensions of tiger conservation in India. This conservation-orientated literature highlights the opportunities offered by breadth – in

stakeholder relations, multi-sited spatial engagement and human-nature relationships – within photovoice.

The third strand of environmental photovoice work focuses on youth environmental engagement, agency and social change through existing education programs. Cook and Quigley (2013) used photovoice to help US tertiary students bridge the gap between environmental knowledge and engagement at their university campus. Likewise Huffling (2015) used photovoice to develop a place-based framework for environmental education with US students, that supported their environmental literacy. Finally Trott (2017) used photovoice to examine youth behaviour change responses to climate change issues through a US science education program. This final strand highlights the importance of place in photovoice research, and demonstrates the effectiveness of photovoice in environmental engagement within existing educational programs.

This emerging research across the broad environmental health, conservation, and environmental engagement domains demonstrates the potential for photovoice to explore the specific issues of environmental behaviour change, inviting considerations of mixed-methods, breadth, and place-based engagement. It also reveals that there are a lack of studies in the Asia – Oceania region. I now consider in more detail two studies from the above strands to expand upon these considerations.

#### 2.2.2.2.1 *Environmental photovoice case studies*

In ‘*Engaging Key Stakeholders In Climate Change: A Community-Based Project For Youth-Led Participatory Climate Action*’, Trott (2017) evaluates the effectiveness of a 15 week after-school program – “Science, Camera, Action” – with US secondary students in 2015 (Figure 18). The inquiry combined climate change education with group-work that included photovoice and subsequent participant-led projects. Through the various participatory processes the students demonstrated a range of emotional responses from hope to despair, and emerged with an increased overall engagement in environmental behaviour; challenging conventional assumptions of negative emotions being barriers to environmental action. These insights suggest a youth-focus could be particularly advantageous to exploring the psychological dimensions of environmental action through the photovoice process. In addition, they also suggest the emotional component of the photovoice process could be the subject of a multi-sited comparison.



Figure 18 - Photovoice in the field (Trott 2017, 49)

Trott's study is based on the *Head, Heart and Hands* model of transformative sustainability learning, which sees knowledge as inextricably linked to action (Sipos, Battisti, and Grimm 2008). This model views transformative learning as occurring through transdisciplinary study (*Head*), which engages values (*Heart*), and is translated into sustainable behaviour (*Hands*) (Orr 1992; Trott 2017), shown in (Figure 19).

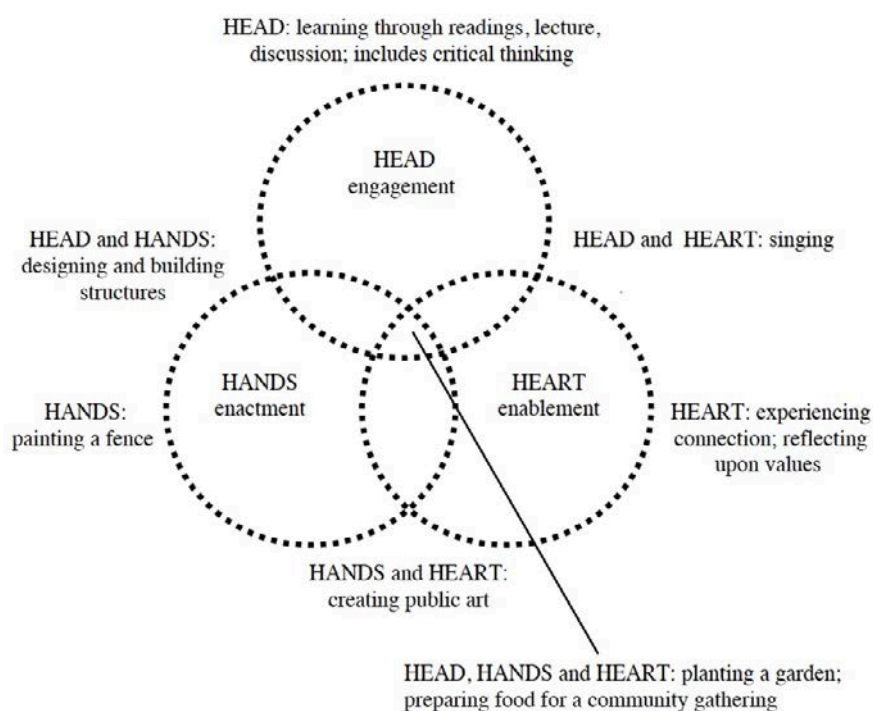


Figure 19 - Head, heart and hands framework of sustainability learning, (Sipos, Battisti, and Grimm 2008, 75)

This model has been used to engage youth in experiential and action-based learning in other contexts, for example, through community gardening. To explore this, Trott (2017) supports the participants to develop their own environmental action plans, an effective way of translating the emergent learnings from photovoice into actual environmental behaviours. The lack of other photovoice research using this collective action planning approach suggests opportunities to further develop this method, as well as the underlying head, heart and hands framework. However, as these methods were used in structured class settings, there may also be scope to develop more flexible photovoice methods for bridging the gaps between emotions, ideas and actions. Furthermore, the study was based on a single-site only, limiting potential opportunities from multi-sited engagement. This signals the consideration of whether the multi-sited dimensions explored in the conservation studies, as well as the mixed-methods approaches in the environmental health studies, could be investigated in the environmental behaviour context.



Figure 20- Documentation of participatory visual processes (Petheram 2011, 59)

I now consider a study that directly explores multi-sited and mixed-methods opportunities for photovoice. In *'Applying Visual Methods for Learning and Communication in Natural Resource Management'* (Figure 20), Petheram (2011) employs mixed-methods in the form of a range of participatory visual techniques, including photovoice, to explore communities' interactions with natural resource management concepts in Vietnam (Cat Tien National Park) and Northern Australia (Dhimurru Protected Area) from 2008-2010. She concludes that these techniques are useful for engagement and encouraging different thinking and learning using these environmental concepts amongst the participants and their community, and that the visual products derived from such processes can be effective at engaging policy stakeholders with these environmental issues.

The uniqueness of this research is that, unlike virtually all other photovoice studies, it focuses on not only the use of the photovoice processes in local areas, but also the impact of its ‘visual products’ as they are used in participatory engagement with ‘offsite’ areas – in this case policy stakeholders. However, such research into the influence of visual products has not yet been conducted in the environmental behaviour change space, and thus provides an opportunity for the present inquiry.

Another pioneering aspect of this particular study was that it involved testing multiple participatory techniques across two geographically separate areas to gauge their relative effectiveness. However, one key limitation was that as these methods related to intentionally different thematic areas at each site, they could not be compared. Thus my own study’s intention of visualising the same theme – positive environmental behaviour – between multiple sites allows a unique exploration of how the participatory methods can be adapted to a multi-sited context. I now turn to a deeper consideration of ‘multi-sitedness’ and its potential for enhancing environmental photovoice.

### 2.2.3 *Multi-site ethnography*

How can we view this ‘multi-sitedness’ in the context of photovoice? One way is to consider the approach of multi-site ethnography (MSE), which engages with complex global phenomena manifesting through different sites separated geographically and culturally. First proposed by Marcus (1995), and drawing from world-systems theory (Wallerstein 1987), it shifts the focus from a single site within a background world system, to examine the world system itself through the “*circulation of cultural meanings, objects, and identities in diffuse time-space*” (Marcus 1995, 96).

As Gatt (2009) reflects in the context of environmentally-themed multi-sited fieldwork with Friends of the Earth International, there can be a tension between ecological perspectives viewing the earth as a singular interconnected biosphere, and discrete fieldwork with partner organisations separated along nation-state boundaries. This tension can be expressed through Marcus’ (1998) critique of the traditional ethnographic dichotomy of lifeworld/system in that it homogenises the concept of singular ‘world system’, with the assumption that ‘local’ lifeworlds are diverse.

Multi-sited research instead offers potential ways to collapse this tension by providing ‘ethnography of complex connections’ (Marcus 1998, 50) between places which are themselves both produced in, and produce, a world system. These approaches tend to operate on a number of different levels – relevant environmental examples include ‘follow the people’ – migratory

climate scientists (Krauss 2011), ‘follow the thing’ – mobile phone repair cultures (Houston 2013), and ‘follow the metaphor’ – climate adaptation metaphors in development projects (Weisser, et al. 2014).

A common scepticism with a multi-sited approach to fieldwork is that it spreads the researcher and the practice too ‘thin’ – prohibiting a sufficiently ‘thick’ description of a site<sup>18</sup> (Hannerz 2003). However, as Wittel (2000) asserts, the debate regarding the sufficient depth of multi-sited fieldwork is actually about different modes of ethnographic complexity. Viewed in this way, ‘thick’ fieldwork – in this case photovoice practice – at a single site only could be just as limited as so-called ‘thin’ multi-sited fieldwork, as the former neglects connectedness to focuses instead on boundaries (Hendry 2003). Furthermore, as Horst (2016) observes, although multi-sited research may be unable to provide a ‘thick’ description of individual sites, it may provide such a description of the network as a whole, and its relations between actors, activities and meanings.

Thus a multi-sited photovoice method, through its exploration of the same environmental behaviour theme across different sites, can be considered in the ‘metaphorical’ category above – with environmental behaviours being the ‘metaphors’ under study across sites. However this approach is distinctive through employing a participatory methodology wherein the data itself – locally created photo-stories – circulates between sites, both physically and virtually. The participatory orientation here echoes the ‘turn’ in multi-sited ethnography from ‘following’ to ‘collaborating’ (Olwig 2012). Furthermore, while visual, and in particular, digital methods have been used across multiple sites (Gallagher and Freeman 2011), and environmental impacts and their local responses have only been tentatively considered so far (Olwig 2012), there is a present gap in the MSE literature around the synthesis of the latter two areas. This study contributes to filling the latter by exploring the adaptation of photovoice methods as a form of multi-sited collaboration.

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<sup>18</sup> ‘Thick description’ is one of traditional single-sited ethnography’s core aims - equating to deep understanding of a particular site or human behaviour including its context and symbolic meanings (Geertz 1973). This typically equates to extended time periods in one site to observe and synthesis meanings. For a useful historical and theoretical overview of the term see Ponterotto (2006).

## 2.2.4 *Multi-sited photovoice*

As we have seen from the literature review so far, there are very few studies that use photovoice across multiple sites. Petheram (2011) and Bennett (2013) are the only environmentally-themed photovoice studies found to explore a multi-sited context.<sup>19</sup> The dearth of literature on multi-sited photovoice means there are a lack of explanations for this gap located in the literature itself, however it can be inferred that photovoice's time consuming nature (Latz 2017) is a strong prohibition to this. Indeed Bennett (2013) states:

Conducting a multi-sited Photovoice in conjunction with an array of other methods proved challenging, and the resultant timelapse between stages may have ultimately led to the ineffectiveness of the final workshop. Since community-based and participatory methodologies are highly time consuming, I would recommend using Photovoice in singular case studies and dedicating more time to the whole process. (135)

Given this warning and lack of precedent, it may seem a dubious enterprise to pursue multi-sited photovoice.<sup>20</sup> However, there are key reasons for doing so, as I explore below.

### 2.2.4.1.1 *Environmental and Climate Justice*

Developing countries, such as those in the 'Global South',<sup>21</sup> tend to be at higher risk of environmental impacts for a range of factors: firstly, these countries tend to have a lower adaptive capacity due to poor infrastructure and resources to respond to environmental shock, and, secondly, they tend to be geographically positioned in areas close to key impacts such as tidal surges. At the same time there are clear-cut inequalities in current and historical responsibility for greenhouse gas emissions – 136 developing countries are collectively responsible for 24% of global emissions, compared to the US alone, which produces 20% of emissions with just 4% of the population (Roberts and Parks, 2007). From a household-scale perspective these impacts are also highly correlated to countries' income (Ivanova, et al. 2016; Wood, et al. 2015), reinforcing the need for globally differentiated responsibility for action; a perspective which has been strongly advocated for in climate adaption literature (Adger, et al. 2006).

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<sup>19</sup> Vaughan, et al. (2015) and Turnbull (2019) were the only other (non-environmental) photovoice studies identified during the literature review process, but neither used it across different countries - the former using photovoice to explore migrant women's experience across multiple states in Australia, and latter exploring migrants' experiences across several immigration detention centres in the UK. Evidence of one other study was found that used photovoice in El Salvador and Canada, however as this was incomplete and unpublished little more insights can be drawn.

<sup>20</sup> Turnbull (2019) also faced difficulty in this study and classed it as a "*research failure*" (152).

<sup>21</sup> This is an emerging term to describe low and middle income countries located in Asia, Africa, Latin America and the Caribbean which contrast to the high income nations of the 'Global North'. The term is generally accepted as less hierarchical than 'Third World' or 'Developing World' (Pagel, et al. 2014).

*‘Environmental Justice’* and *‘Climate Justice’* are terms describing this disparity between responsibility and impact, with growing evidence for poorer communities bearing the brunt of environmental impacts themselves, either sub-nationally or inter-nationally (Mohai, Pellow, and Roberts 2009; Roberts and Parks 2006). These global justice perspectives highlight the importance of taking a critical multi-sited approach with respect to developing environmental photovoice, in order to properly consider local environmental behaviour in the context of their unequal global dimensions. Justice perspectives invite consideration of how multiple sites across the North-South spectrum could visualise their own environmental behaviours, and co-learn from one another through these stories, which I consider in the Methodology section.

#### 2.2.4.1.2 *Geographic limitations of media and behaviour change research*

Environmental justice approaches are rarely shown in the media; analysis suggests that they are particularly absent in Western media, while having some exposure in developing countries such as India (Schmidt and Schäfer 2015). In addition to the limitations to environmental behaviours described in Part A, the representation of such behaviours in the literature can be biased. Most behaviour change models tend to focus on English or Spanish speaking areas – and are thus subject to a Western bias (Soyez 2012; Katz-Gerro, et al. 2015). While there has been a growing literature in cross-cultural environmental behaviour comparisons, these tend to rely on existing large-scale social surveys (Pisano and Lubell 2017; Soyez 2012), with far fewer studies focussing on actual environmental behaviours themselves (Korfiatis, Hovardas, and Pantis 2004). Many of the above research examples and remarks are taken from studies in the Western world only. One comparative analysis of newspaper articles in 27 countries found that developing countries had higher climate change media exposure if they were more at risk, however no information was available on how the issues were *visualised* (Schmidt, Ivanova, and Schäfer 2013). There has been little research done so far regarding media analysis of climate change in non-Western countries (Schäfer, Ivanova, and Schmidt 2014).

Although my research is focussed on participatory visual methods rather than media analysis, the effects of the media’s broader visual culture is relevant to particular methods within the inquiry such as photo-elicitation (Chapter 3), that and suggests consideration of how visual products coming from photovoice processes may be seen differently in a multi-sited context.<sup>22</sup> It also implies opportunities to pursue multi-sited research using participatory methods beyond the survey responses in the existing methods above.

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<sup>22</sup> While this is an invitation to the multi-sited approach, the actual analysis of visual culture at each site is beyond the scope of this methodologically-focussed study.

### 2.2.4.1.3 Empathy

Empathy is a useful concept to introduce in the context of photovoice and engagement with visual products such as photo-stories. Two distinct types are relevant: *cognitive empathy* (imagining the subjective experience of another) and *emotional empathy* (feeling vicariously in response to perceived emotional experiences of others) (Mehrabian, Young, and Sato 1988). In a multi-sited photovoice context, the first allows the viewer to imagine the personal experiences of participants from different sites, while the second gives the potential for embodied affective engagement with this experience.

While empathy is usually associated with social justice issues, it is also a powerful lens to explore environmental concerns. Firstly, it assists in the shift between ‘me’ and ‘we’ thinking, that is between extrinsic motivations and intrinsic ones, the former being a key driver of high material consumption, which in turn drives environmental degradation (Krznaric 2015). Secondly, through seeing disconnection from nature as another indirect cause of environmental destruction (Chew 2015), developing empathetic connections with the natural world becomes a priority for environmental protection.<sup>23</sup>

There is potential in the visual engagement of environmental behaviour for viewers to relate across cultures and difference with respect to shared risks and responses (Krznaric 2010). Through such an environmental justice lens, the fostering of notions of global equality is crucial, and this is supported by a focus on empathy (Zeldin 2012). Empathy education draws upon both cognitive and emotional empathy and invites the consideration of a range of participatory approaches (Krznaric 2014).

For example, in an Oxfam UK program, *Climate Chaos*, students engage with empathy geo-spatially and temporarily – in the former they read about young Tuvaluan girl whose home is being impacted by sea level rise and write a first person story about her experience; in the latter they imagine how their grandchild’s life would be in 50 years’ time, if the climate continues to change (Krznaric 2015). Using empathy in such participatory practices can be approached on three levels – *conversational* (using dialogue to share experiences, such as *Climate Chaos*), *experiential* (immersive and travel-based experiences), and *global* (international focus) (Krznaric 2015). These empathy levels suggest opportunities for photovoice activities to be run across multiple sites that could provide space for these processes of empathy facilitation – and thereby engaging with environmental behaviour change through conversational, experiential and global dimensions.

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<sup>23</sup> Photo-elicitation has demonstrated this empirically - in one study, participants were presented photographs of: 1) recreational activities in nature, 2) animals in nature, 3) animals suffering, with half instructed to observe ‘objectively’, the other half told to imagine how the animals feel. Environmental concern was highest in the latter category (Schultz 2000).

## 2.2.5 Summary

Considering this literature review of environmental photovoice in relationship to multi-sited ethnography suggests clear opportunities to explore photovoice across multiple sites. First and foremost, I have established a clear gap in the literature around multi-sited photovoice projects of any theme. Secondly, engagement with visual products from such photovoice process – such as photo-stories – may be enhanced in a multi-sited context. Thirdly, affective methods – including processes such as the ‘head, heart and hands’ approach – may benefit from being deployed across multiple sites to intentionally bring globally empathetic dimensions into these processes. Finally, there are opportunities to explore how collective environmental behaviour – such as in the form of group action projects – could manifest in a multi-sited context.

In summary, I locate my action-research at the intersection of photovoice, environmental behaviour change, and multi-sited ethnography. A generalised representation of these spaces is shown in (Figure 21).

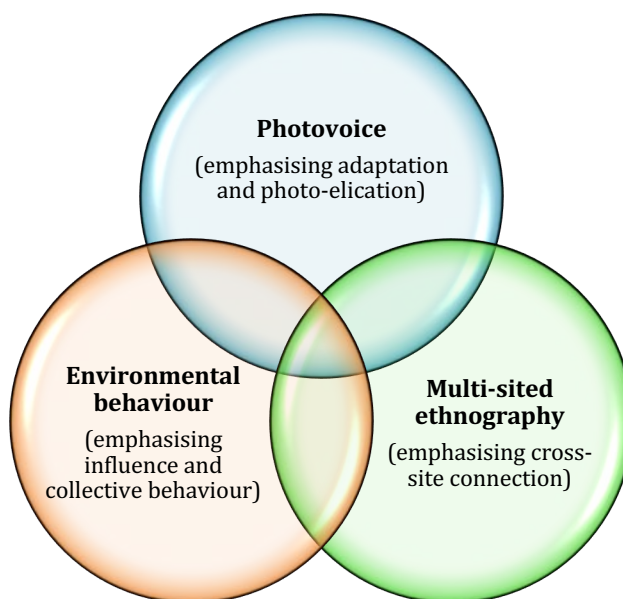


Figure 21 - Literature gap situating research project

The contributions of such action-research lie in its capacity for multi-author participatory visual story-telling across multiple sites at a grassroots level. In contrast to mainstream environmental photography with its polarised emotions, generic aesthetics, and flattened narratives, participatory approaches provides the opportunity for telling multiple stories of environmental behaviour change that can build up *layers of local perspectives*, or *relative truths* across time and space – in line with the evidence that – as there is no fixed ‘silver bullet’ for successful environmental behaviour change – the solutions lie in plurality, diversity and emergence.



From the picture we can see many people clear the rubbish. The people collect the rubbish and clean the roads. Then transfer the plastic bottles to the industries and other places. Then recycling for make a new material. I give thanks to the people. (photographer, Dhaka, Bangladesh)

*"It's community action to make environment better in contrast with Melbourne where people expect others to clean up rubbish. Western society is very classist and people want to own items rather than collective ownership... it appears that the students are putting more effort into sustainability than many people I know. I'm trying to reduce plastic however it's also a privilege to be able to forgo."* (responder, Melbourne, Australia)

# Chapter 3 - Methodology and methods

## 3.1 Introduction

In this chapter I outline the theoretical and methodological positioning of my research project, following the opportunities identified for a multi-sited environmental photovoice in the literature review. I introduce participatory action research as the appropriate methodological framework for bringing multi-sited dimensions to the photovoice process, across the *creation*, *analysis* and audience *engagement* of environmental photo-stories. Through the process of conducting this exploration, the key research question emerged – ‘***How might we use multi-sited photovoice to facilitate local environmental behaviour?***’

This exploration is practice-based, and unfolds with three research orientations – *adapt*, *visualise*, and *influence* (Table 6). It uses participatory action research to iteratively *adapt* photovoice methods across and between Bangladesh, China and Australia (sub-question 1). It is grounded in visual storytelling, exploring how environmental behaviour can be *visualised* across these sites through the resulting photo-stories (sub-question 2). Finally, it combines these two approaches to examine the potential change-making *influence* of these photo-stories (sub-question 3). These visual practice-based research orientations invite their distinctive methodological approaches in the form of participatory action research (PAR) and mixed-methods analysis. The colours in the table below signpost each orientation throughout the exegesis.

Table 6 - Research orientations and questions - colour mapped

Research Orientation	Research Sub-Question
<b>ADAPT</b>	1. How might we <b>adapt</b> photovoice to operate across multiple sites?
<b>VISUALISE</b>	2. How might we use photovoice to <b>visualise</b> local environmental behaviour across multiple sites?
<b>INFLUENCE</b>	3. How might we use photovoice to <b>influence</b> local environmental behaviour across multi-sites?

### 3.1.1 *Research positions: methodology and themes*

The action-research design positions are located amongst two areas, firstly methodologically in design-based participatory action research, and secondly thematically in environmental humanities and social sciences.

#### 3.1.1.1 Multi-sited, design-based participatory action research

The research being participatory, reflexive, and change orientated, is located in the action-research paradigm (Chevalier and Buckles 2013). This seeks to determine simultaneously an *understanding* of the social system as well as optimal opportunities for *change*; thus responsiveness to the practice is essential, with the research questions arising from *within* the research process itself (Dick 1993), rather than pre-existing them. Within this paradigm there are a number of methodologies, of which *participatory action research* is the most fitting due to the participatory and change orientation of the inquiry (Bradbury 2015).

PAR is a methodology that seeks both social change and learning through reflective cycles of action-reflection in community contexts (Kemmis, McTaggart, and Nixon 2013; Morton 2012; Somekh 2005). Design approaches to PAR tend to emphasise the action or intervention, and bring with them ‘designerly’ ways of thinking (Silverman 2015). This may include considering ‘affordances’ – the ability of a process or product to support particular ways of being or doing (Norman 1988), or ‘boundary objects’ – experiences or objects which can be understood differently across social or cultural boundaries, creating spaces for engagement and dialogue (Star and Griesemer 1989). These interventions tend to be focused at the user-experience or individual level rather than the policy level (Trott 2017), with the material dimensions of the design-based experimentation being emphasised as a legitimate knowledge source (Steffen 2014).

It is worth briefly contextualising here the relationship between design-based PAR and participatory design (PD). PD was pioneered in Scandinavia in the early 1970s, evolving as a design approach as technology professionals and union leaders strove to democratise new technology as it was introduced into the workplace (Winograd 1996). Two-way learning is a key goal, and PD can be defined as a process of investigating, understanding, reflecting upon, establishing, developing, and supporting mutual learning between multiple participants (Sanders 2002; Simonsen and Robertson 2012). PAR, although having different origins, similarly involves participants as both subjects and co-researchers, and is chiefly oriented towards attaining greater insights into studied processes through knowledge sharing, collaborative learning and participant

observation, often within a broader change or emancipatory context. PD, while also seeking the goal of greater insights, tends to eschew this broader change agenda, emphasising knowledge through co-designed outcomes (Simonsen and Robertson 2012; Sanders and Stappers 2008), and is often used when targeted participation is required for a particular design goal, rather than cyclical open ended processes such as in action-research (Foth and Axup 2006). PD was the precursor to the broader term ‘co-design’ which is often used as a umbrella term for participatory, co-creation and open design processes (Cruickshank et al. 2013) – I use ‘co-design’ interchangeably with PD in this exegesis, in recognition of their mutual aims (Sanders 2008). Given photovoice’s heritage with Freirean and feminist methods, a ‘design-based’ PAR acknowledges the emphasis on co-designed and process outcomes.

Although photovoice shares a common philosophical lineage with PAR and can be considered as a specialised subset of PAR methods (Wang 1999; Baker and Wang 2006), the degree of participation varies widely across studies, with most participation being focussed exclusively on engaging with a specific cohort, at a specific site, through photographic story creation – what I call the conventional ‘depth’ approach (Latz 2017). My research on the other hand considers the design and participation in the photovoice program as a whole across multiple sites *as it has evolved*, thus taking a broader, necessarily ‘thinner’ multi-sited ethnographic orientation towards participation – the ‘*breadth*’ approach (Coleman and Von Hellermann 2012). Caution must be taken here to negotiate this photovoice process with PAR principles of researcher positionality, participation and time engagement (Sitter 2017), discussed below. The iterative PAR approach explores different sites of participation through which environmental engagement can be expressed. Consequently, my methodological contribution to knowledge involves developing a multi-sited photovoice method through PAR inquiry across a range of scales from ‘on-the-ground’ workshop-level to overarching program-level.

### 3.1.1.2 Environmental humanities and social sciences

Moving from the methodological space to the thematic space, questions of environmental behaviour and engagement deal with fundamental human-environment relations and fall within the broad domain of the Environmental Humanities and Social Sciences (ESSH). The ESSH differ from traditional ‘objective’ scientific environmental study in tending to focus on qualitative human-environment relationships, encompassing affect and imagination alongside cognitive and pragmatic dimensions (Castree, et al. 2014). Academic inquiry is often co-emergent with efforts to engage more broadly with the public or policymakers regarding environmental issues and to evoke wonder or empathy regarding human-nature relationships (Nye, et al. 2013).

Although there is increasingly overlap between the environmental social science and the humanities sides, key differences remain: the environmental social science (ESS) side tends to emphasise the behavioural and empirical dimensions of these relationships, which in this study relates to the thematic focus of visualising environmental behaviour.<sup>24</sup> The environmental humanities (EH) while sharing similar objectives, focusses on questions of value, rights, responsibility, justice and so forth in a diverse and interconnected world defined by complex moral and material interdependences between human and non-human actors. From a multi-sited perspective it acknowledges the colonial legacy inherent in the often uncritical privileging of Western technological progress and knowledge over other ways of knowing, and expresses this through exploration of environmental justice concerns and place-based knowledge (Emmett and Nye 2017), the latter themes which emerge through the inquiry.

In the photovoice context ESSH's more-than-human orientation presents both a gap and a research opportunity – virtually all photovoice studies covered in the literature review focussed exclusively on the human 'voice' alone; with the pioneering exceptions of (Alam, McGregor, and Houston 2018; Margulies 2019), both of which were single-sited inquiries. Hence by using a multi-sited photovoice sensitive to more-than-human relations this research expands the ESSH field.

## 3.2 Methodological approach - Participatory Action Research

PAR is a term describing a broad collection of social research methods primarily concerned with empowerment and positive change, which differ from more traditional methods in that there is an explicit desire for positive change, where the degree and type of change is ideally co-determined by the participant-researchers themselves (Kemmis, McTaggart, and Nixon 2013; Morton 2012; Somekh 2005).

Chevalier and Buckles (2013) describe how PAR engages with contemporary tensions between three planes:

1. *Social (participation)* – challenges of how to facilitate participation in the context of globalization and social fragmentation.

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<sup>24</sup> It is important to emphasise here the primary research focus on 'visualising environmental behaviour' rather than specifically environmental behaviour itself, which would locate it more specifically in the environmental psychology field.

2. *Experience (action)* – challenges of how to affect change balancing pragmatic action and human subjective experience.
3. *Mind (thought)* – challenges of how to develop research ‘with people’ rather than ‘on’ or ‘for’ them.

These tensions are shown in Figure 22.

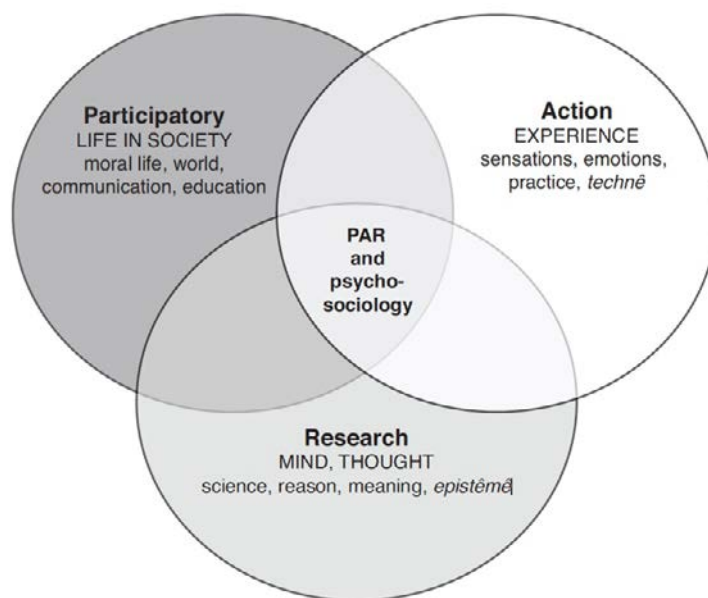


Figure 22 - Participation, Action, Research (Chandler and Baldwin 2010, 10)

### 3.2.1.1 Historical context

PAR represents highly diverse methods and origins; Kindon, Pain, and Kesby (2007) compiled a list of 21 current schools of PAR representing 10 different countries of origin. According to Wallerstein and Duran (2003), the present diversity emerged through two distinct traditions of action research, the Northern and Southern traditions. The former emerged from Kurt Lewin in the 1940s who challenged the gap between theory and practice in addressing practical problems through a cycle of planning, action, and investigating the results (Lewin 1946). The Southern tradition emerged in the 1970s in Latin America, Asia, and Africa out of the context of structural crises of underdevelopment, Marxist social scientific critiques, liberation theology, and new practices emerging from adult educators and community developers. This tradition emphasised the emancipatory potential of community-based research in addressing structural inequalities and with the hope of bringing about social change (Maruyama & Ryan, 2014a). Wallerstein and Duran (2003) acknowledge that these two traditions seem to have become attuned over time, with the Northern approaches acknowledging social change dimensions and Southern developing Lewinian connections.

Thus PAR is deeply aligned to this research not only through its shared connections with photovoice, but due to its inclusivity of a range of participatory methods – its framework closely follows the ‘messy’ iterative stages of community-based practice-led action-research.

### 3.2.1.2 Epistemological orientations

While this diversity of approaches can appear confusing, it is beneficial to remember that PAR can be considered a methodological *orientation* to research, rather than a specific defined methodology itself<sup>25</sup> (Reason and Bradbury 2008). It can thus be thought of as ‘epistemologically agnostic’ – the researcher cannot fully know the theory and prescriptions for actions ahead of time. All methodologies have philosophical assumptions affecting how the research is conducted, with the researcher’s worldview also affecting how they work through the methodology (Bradbury 2015; Kemmis, McTaggart, and Nixon 2013; Denzin and Lincoln 2011). The research theme of environmental behaviour thus gives an anchor point to explicate these underlying assumptions.

Environmental behaviours combine human practice and meaning-making in interaction with non-human others and the environment, of which *critical realism* forms an aligned epistemological orientation. This perspective asserts that while external reality can be described by human (or augmented) senses, these emerging social realities are negotiated and interpreted by subjects who are themselves partially constituted through social institutions and discursive structures (Archer, et al. 2013; Bhaskar, et al. 1998; Soper 1998). Thus multiple interpretations and meanings of objects, subjects, and reality itself are allowed without the descent into pure relativism and the subsequent negation of ‘objective reality’ that other forms of constructivist qualitative research can imply (Madill, Jordan, and Shirley 2000). This stance can encompass both “*the positivist’s search for evidence of a reality external to human consciousness with the insistence that all meaning to be made of that reality is socially constructed*” (Oliver 2011, 2), allowing the generative confluence of interpretive and positivist approaches in research (Connelly 2001).

I have found coming to an epistemological orientation has been challenging in this project, which is located within the ‘contact zone’ (Pratt 1991) between different knowledge paradigms. I have taken inspiration from Morton (2012) who advocates that the tension between these elements can be a positive, creative dialectic. This tension has played out in numerous ways – perhaps the most substantial being between my positivist predisposition to *lean*

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<sup>25</sup> Whether PAR is a methodology itself (Dick 1993), or an orientation towards a methodology (Bradbury 2015) is contested. However as my inquiry is not evaluating PAR itself these debates are outside its scope.

*in*, in order to manage, collect and decipher the meanings ‘hidden within’ an ever-growing set of participants’ photo-stories, and my constructionist inclination to *lean out* to try to discern the evolving participatory processes that I am both designing, and of which I am a part.

### 3.2.1.3 PAR Cycles

While PAR itself is highly diverse, an important differentiator between PAR and traditional research is the former’s insistence that the research is not being done *on* people, but rather *by* and *for* people (Kemmis, McTaggart, and Nixon 2013). This offers a methodology with ideals of collaboration with the participants throughout the research process. This collaboration generally occurs during *PAR cycles*:

Cycles of a PAR project may engage participants in any or all of the following: helping to formulate the problem definition, assessing the problem, determining an intervention, implementing the intervention, and assessing the intervention. Multiple methods are often used with PAR, including surveys, focus groups, interviews, Photovoice projects, observations, and community mapping. (Langhout and Thomas 2010, 61)

Although PAR can have an ambitious participatory agenda – including participant-driven research, participation at various levels of the project, and iteration until the ‘problem’ is resolved, in real world research these ideals are often unfeasible to reach, and many PAR projects focus their participation within discrete communities, such as classrooms or community groups (Chevalier and Buckles 2013; Walker 1993). Similarly, in this project PAR cycles are limited in scope. Although the ‘ideal’ PAR cycle is represented by a full cycle of planning-action-reflection-evaluation (Figure 23), these elements, and the nature of participation varied substantially depending on the context and stage of the research.

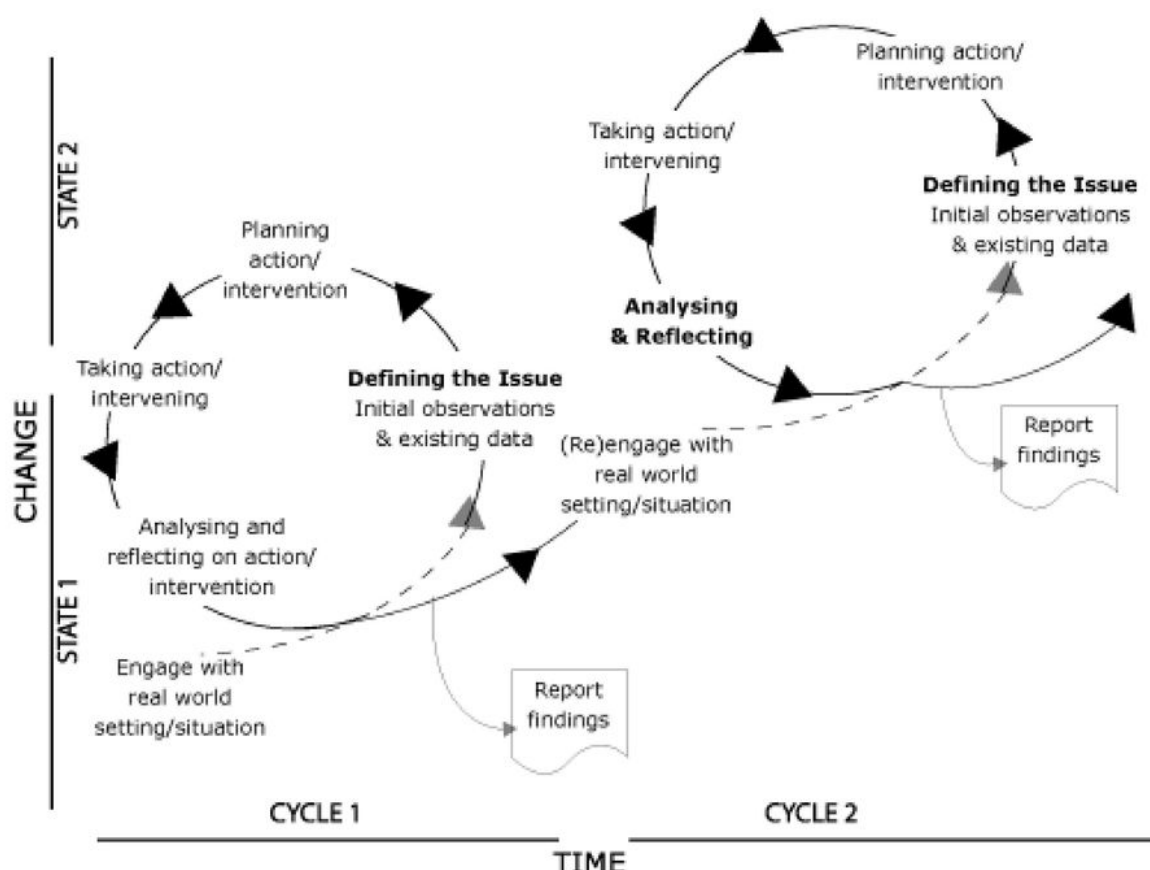


Figure 23 - Idealised PAR cycles (Velasco 2013)

Through these cycles the intent is to democratise and co-construct knowledge and reduce power hierarchies (Langhout and Thomas 2010; Nygreen 2009). The project's PAR cycles are outlined in more detail in Chapter 4, noting challenges and adaptations found along the way.

In allowing the methods and the research questions themselves to evolve, PAR emphasises *responsiveness* to the field. This is achieved at the expense of *replicability* – by adapting to local contours as research progresses, the emerging results are harder to replicate or generalise beyond the field (Dick 1993). This trade-off is appropriate for this project – as the scope is vast in spatial, temporal, cultural, and disciplinary terms, that attempting replicability would require a dataset and consistency far beyond the scope or resources of this project. Instead I have focussed on striving for responsiveness to the situations and data emerging at the time. This has resulted at times in ‘incomplete’<sup>26</sup> datasets or analysis at ground level, which has given space for broader level analysis and program-level reflections.

<sup>26</sup> ‘Incompleteness’ here refers to the positivist perspective of collecting a ‘complete’ set of photo-stories from across the three sites, or conducting analysis until ‘saturation point’- what I found in the field to be a continually incomplete task.

Although the PAR approach spans a broad cluster of theoretical positions (Lewinian, Freirean, feminist amongst others) and methodological approaches (quantitative, qualitative, mixed) (Chevalier and Buckles 2013; Kemmis, McTaggart, and Nixon 2013; Freire 1970; Lewin 1946), they tend to share similar problem-solving orientations, which can privilege instrumentalism and rationality at the expense of non-rational ways of knowing (Michelot 2008). I often observed this within myself as a researcher – for instance being so focussed on collecting or analysing photo-stories that I would overlook subtle forms of relationality or participation.

Another critique of PAR centres on scale and participation – by focussing predominantly on the micro-local approach, macro-democratic processes may be neglected (Hickey and Mohan 2004), and participatory processes themselves may be co-opted by powerful interests, leading to manipulated outcomes (Cooke and Kothari 2001). Although I attempted to be cognisant of power relations within the project through self-reflexive journaling and tried to mitigate my privileged subject position<sup>27</sup> through engaging in participatory processes and involving local decision-making where possible, these power dynamics persisted throughout the inquiry. Despite these limitations, the PAR process was an effective vehicle for enabling continual reflection and staying close to the ground throughout the research activities. I now outline these in more detail.

## 3.3 Data collection methods

### 3.3.1 *Photovoice*

As mentioned previously, photovoice practices formed both the set of data collection methods for *generating* photo-stories (**visualise** theme – Chapter 5), and *engaging* audiences with photo-stories (influence theme – Chapter 6), as well as a form of process data itself for the **adapt** and **influence** themes (Chapter 4, 6) to track how the design practices evolved. In the sections below I outline some of the key components of the photovoice process and how I approached adapting them to suit the inquiry.

As photovoice encompasses a collection of participatory methods (expanded upon below), it is implemented differently depending on the research theme and methodology. As Evans-Agnew, Boutain, and Rosemberg (2017) write in their review of photovoice methods across studies from phenomenological, grounded theory and critical perspectives, there are

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<sup>27</sup> Some of this privilege was due to power dynamics arising from me initiating the project, as well as being a (Anglo-Chinese but passably) white male outsider.

frequently methodology-method incongruences within photovoice approaches, such as the lack of processes to disseminate learnings or visual products (for instance through exhibitions or policy engagement).

The implication for this study with its critical realist action-research perspective is the invitation to develop the appropriate practice-led research strategies that still align with Wang and Burris's (1997) seminal photovoice formulation, whilst simultaneously being responsive to what methods work best in the multi-sited context through the emergent PAR process. Local responsiveness in this project tended to be either process methods adaptations, or thematic adaptations to best fit in with participants – for instance broadening the theme from climate change to environmental engagement to make it more accessible for younger participants. Other thematic adaptations were more in line with feasibility of visualisation – such as the transition from the initial focus on low carbon wellbeing to that of environmental engagement. Through conducting these adaptations I slowly became cognisant of my role as photovoice practitioner expanding beyond data collection to the shaping of pedagogical and organisational structures.

### 3.3.2 The photovoice process

#### 3.3.2.1 Photovoice aims

Considering the diversity of photovoice approaches, it is worth touching briefly on the general aims of the approach and how it intersects with the study. Catalani and Minkler (2010) reviewed 37 photovoice health interventions and synthesised a photovoice impact model (446), which suggests three outcomes: (a) *action and advocacy to affect policy change*; (b) *increased understandings of community needs and assets*; and (c) *individual empowerment* (Figure 24).

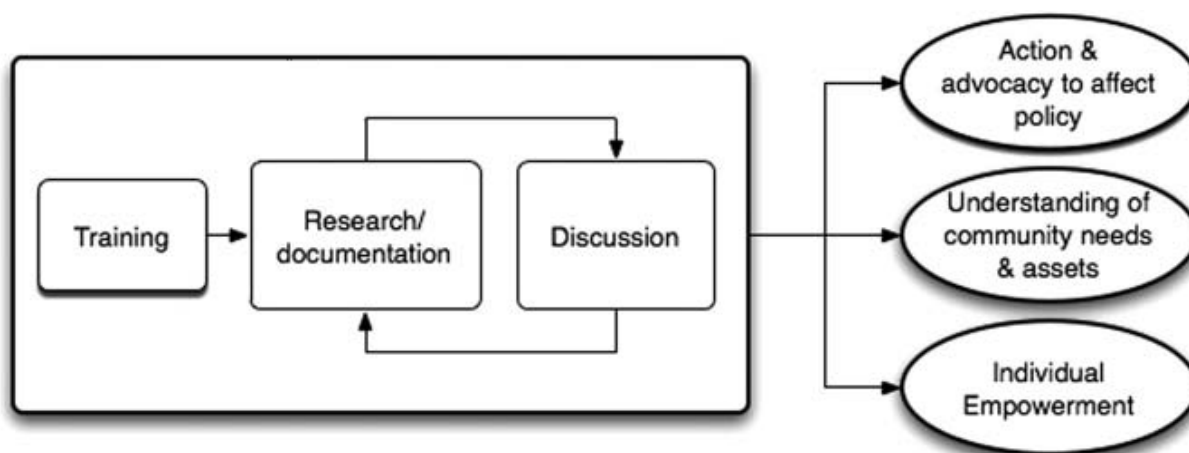


Figure 24 - Photovoice impact model (Catalani and Minkler 2010, 446)

This model validates the *adapt*, *visualise* and *influence* key research orientations of my study as being broadly consistent with the photovoice field. For instance, the aim of exploring *influencing* environmental engagement is to generate action, *visualising* the engagement contributes to community understanding, and the *adapting* program has been intended to increase participant empowerment.

### 3.3.2.2 Photovoice activities

Moving from these higher order aims to the lower order activities, the photovoice method encompasses a wide range of sub-methods or activities, and despite the substantially varied nature of photovoice projects, most follow a subset of key activities (Evans-Agnew, Boutain, and Rosemberg 2017) shown in (Table 7). I similarly initially followed a subset of these – B, C, D, E, F, H – when designing workshops and exhibitions, which I subsequently evolved through the PAR cycles in order to develop new methods (Chapter 4).

*Table 7 - Components of the Photovoice Process*

Stage	Process
<b>A</b>	Issue identification
<b>B</b>	Recruitment of participants from groups whose voice on this issue may have been marginalised
<b>C</b>	Training in the issue(s)/problem(s)/aim(s), photovoice goals and outcomes, camera equipment, photography techniques, safety issues, ethical issues concerning privacy, public speaking, and advocacy
<b>D</b>	Photo-documentation by participants using personal cameras, photo-taking prompts, and sometimes journaling
<b>E</b>	Photo-elicitation discussions with participants in interviews and/or focus groups
<b>F</b>	Analysis (including sometimes the annotation of the photograph by the participant(s) with a title/caption)
<b>G</b>	Identification, recruitment, and engagement of policy makers and other stakeholders
<b>H</b>	Dissemination of findings/photographs to policy makers and other stakeholders in the form of gallery-style exhibitions, community discussions, Web sites, research journals, and appendices
<b>I</b>	Planning/mobilising/taking action for policy change

### 3.3.2.3 Recruitment

Photovoice participants are recruited in a wide range of areas and methods, typically either through partnering with community groups or organisations or by researchers recruiting the participants directly themselves (Delgado 2015; Latz 2017). Being a time and resource intensive method, participant numbers in photovoice studies are generally much lower compared with other qualitative methods, for instance (Hergenrather, et al. 2009) found an average of 21 participants across 31 photovoice studies examined.<sup>28</sup> Based on my previous photovoice work in India recruiting villagers through local partner organisations (Chew 2014; Chew, Maheshwari, and Somerville 2019), it can be difficult to recruit female participants due to local gender customs, therefore extra time and briefing should be given to partner organisations with respect to this.

In this current study, participants' engagement was determined largely by the partner organisations: in Bangladesh, it was straightforward to leverage the lead research partner *International Centre for Climate Change and Development's (ICCCAD)* existing relationships with university and youth groups to recruit participants, however in China working in Beijing with the partner *Friends of Nature (FoN)* it was a consistent struggle to recruit, while in Hangzhou with partner Zhejiang University of Media and Communications (*ZUMC*) I used existing classes for the activities yielding 'captive audiences' – however the engagement in these classes was much lower, probably due to participants viewing the activities as competing with pre-existing university classes. Learning from this, I tended to follow the local partner's existing group 'captive audience' strategy to ensure enough participants.

### 3.3.2.4 Participation

Photovoice as a collection of methods can be employed at a range of different engagement scales – according to Catalani and Minkler's (2010) meta review this ranged from high contact and/or long term (3 month+) to low contact and/or short term (~2 workshops). Regarding participation duration, in their photovoice meta review, Hergenrather, et al. (2009) reported an average number of 5 photo discussion sessions each, across a duration from 6 weeks to over a year. This depth of engagement seems to be related to the nature of participation that is in the study as a whole. While I initially sought participatory engagement beyond the workshop at higher levels, in reality a number of issues constrained this. Issues included the following:

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<sup>28</sup> Wang's (1999) original study recommended having only 7-10 participants to encourage in-depth discussions.

Firstly, the scope of the topic was determined and refined through research in Australia, which situated it lower on the ‘participation ladder’ to a project that is explicitly participant-driven and whose scope is formulated at the local site. However, my study focuses on methodological adaptation as a primary goal and environmental behaviour change as secondary, rather than the explicit focus on participant empowerment common to many studies (Latz 2017). On a broader level, evidence suggests that the researcher-defined process is actually much more common than participant-defined (Hergenrather, et al. 2009), with Catalani and Minkler (2010) additionally finding in their review that most commonly participants were not involved in focus of the research projects or the research design.

Secondly, my initial considerations involved co-designing the workshops with participants; however, I found this totally infeasible due to the multi-sited fieldwork’s time constraints. I next suggested co-designing the workshops with the host organisations; however, they unanimously preferred me to design the workshops with minimal input from them, generally due to their own very limited time and resources to give to the process. During the workshops participants were fully responsible for photography making, photography selection, photo-elicitation and caption-writing, and final selection of their photo-stories.

Thirdly, at the conclusion of most workshop series beginning from site-cycle 4, I invited the participants to form working groups around relevant ‘next step’ topics including disseminating their photo-stories (online and exhibiting), sharing photo-stories specifically between sites, and topics of their choosing (Appendix C5). Although they tended to show enthusiasm and ideas regarding being involved after the workshops, their limited time and lack of further structured engagement tended to preclude further involvement – an issue I only was able to address much later through developing group projects in site-cycle 11 (Chapter 6).

These issues regarding participation are central to the ethics of the photovoice method as well as the efficacy of its techniques. On one hand the above barriers to participation made me feel the project had been compromised in its participation and change-making potential. However, when I was able to take a step back from the processes I could see that the modifications to participation were necessary adaptations to the time and logistical constraints of multi-sited fieldwork process as previously discussed. Furthermore, by considering this relationally I began to see other avenues of participation, discussed further in Chapter 4.

### 3.3.2.5 Cameras

I mainly sourced camera equipment through donations in previous projects to minimise material impacts from sourcing new products. However, from my experience using identical cameras is

ideal to ensure uniform operation when teaching, especially across cultural differences. I therefore secured a sponsorship arrangement with mobile phone recycler [PhoneCycle](#) who supplied 24 identical used camera phones (Blackberry 9800, 5MP camera – Figure 25). While sourcing and using second-hand cameras was important for both reducing the environmental impact of the project itself, as well as being consistent with the educational materials in the workshops (Figure 26), it did add another layer of researcher labour to an already challenging process.



Figure 25 - Blackberry 9800 in action (Dhaka)

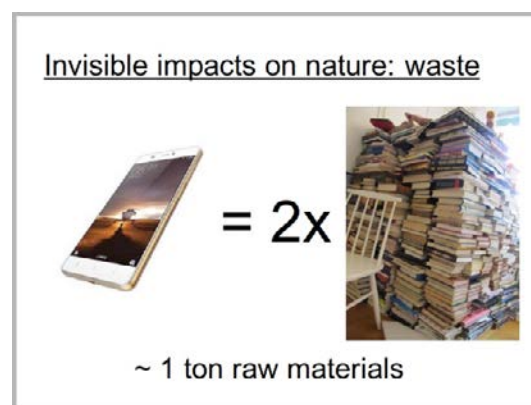


Figure 26 - Workshop slide extract

### 3.3.2.6 Participant training

The training and guidance of participants in their photography is influenced by the underlying epistemological assumptions of a photovoice inquiry. From reviewing photovoice literature personally, together with meta-reviews (Hergenrather, et al. 2009; Catalani and Minkler 2010; Lal, Jarus, and Suto 2012; Simmance, et al. 2016), the broad range of studies seem to show a divergent spectrum between, on one hand a realist focus on pure documentation (where subjects are directed to simply document specific subjects according to the research theme, assuming an indexical relationship between the subject-photograph) and, on the other hand, a constructionist emphasis on pure subjective experience (where subjects are specifically invited to construct photographs of scenes or events that do not exist outside the photovoice process).

Despite these assumptions and training having key influences on participants, ultimately the actual act of photography lies outside the control of the researcher. During my research I saw this expressed regularly through the vast range of participant photographs between realist-oriented and constructionist-orientated, largely independently of the emphasis I would put in the workshop content. Indeed, I initiated the latter training process as largely realism-based, then adapted it progressively to highlight more creative representations (Chapter 4).

### 3.3.2.7 Data analysis

As Allen (2011) shows, there are a wide range of analytical strategies that can be used for participatory photography, including – realist, interpretivist, critical, materialising approaches – each with differing truth claims associated. Hansen-Ketchum (2008) assert that differences in the researcher's assumptions – realistic vs relativistic – could be discerned by examining photo-elicitation processes, with the latter requiring only individual elicitation, and the former necessitating collective discussion. Likewise Evans-Agnew, Boutain, and Rosemberg's (2017) review of photovoice studies identifies that those with a realistic or phenomenological approach tend to use either content or semiotic analysis, whereas critically-based inquiries draw upon greater participatory analysis.

According to Hergenrather, et al. (2009), the majority of photovoice studies report researchers and participants collaborating to some extent over data analysis, with a wide variance in the role of researchers and participants. In many, themes are presented to participants merely to confirm accuracy and make any necessary modifications. My research study faced similar practical limitations to participatory data analysis as listed above. In particular, the multi-sited nature of my project constrained the duration of the interventions – from 2-3 weeks usually – which in turn limited the scope for participant-led analysis. The practical result was that I did the majority of the data analysis myself, drawing upon twin strategies of content and relational analysis. An unexpected, deeper insight was through re-orientating myself from relying solely on the visual analysis of the photo-stories for evidence of environmental behaviour – to realising that this analysis could actually reveal new forms of relational entanglements that emerge from multi-sited photo-stories engagement methods.

### 3.3.2.8 Photo-elicitation

A key part of the photovoice process involves creating spaces where participants can critically reflect on their own photographs. This is the concept of 'photo-elicitation', where existing photographs are used to stimulate new responses from participants. This covers a variety of methods, and usually takes place within existing photovoice, photo-essay, or photo-interview processes<sup>29</sup> (Boucher 2017).

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<sup>29</sup> *Photo-essay* is a related participatory action research method where participants take photographs and then arrange them in a particular sequence with text as a way to make meaning of an issue, while photo-interview refers to a method using photo-elicitation on its own (Boucher 2017).

Wang, et al. (1998) provided a seminal facilitated discussion process, called *SHOWeD*, that guided photo-elicitation, this included – (1) *what do you See here*, (2) *What is really Happening*, (3) *how does this affect Our lives*, (4) *Why does this situation exist*, and (5) *What can we Do about it?* (80). This was intended to facilitate a critical awareness-building process amongst the participants by getting beyond the surface of the image to consider how the photographs could elicit critical thoughts around what can actually be done about what is represented. This questioning strategy has remained mostly un-changed within critical-orientated photovoice studies, however in studies with an interpretive approach, researchers usually used the first three questions, and used individual rather than group interviews (Evans-Agnew, Boutain, and Rosemberg 2017). With environmental behaviour in the ‘contact zone’ that straddles both empirical actions and interpretive perspectives, I followed this focus on individual participants’ meaning-making, taking inspiration from these questions to develop my own prompting framework, on the basis of what is visible/invisible, detailed in Chapter 4.

Photo-elicitation can extend existing qualitative research methods and de-centre the researcher from their pre-determined research process, allowing more scope for emergent themes arising from the subject rather than the researcher (Harper 1988, 2002). One example is the shift in the second round of photo workshops (site-cycle 7) to decouple photo-elicitation from photo-creation (inside the workshops), extending it to photo-interviews (held in separate events with different participants); the latter process broadening the relationships from the initially *vertical* participant-facilitator axis to connect the participants with each other *horizontally* through their photo-stories, as detailed in Chapter 6.

Textual context is critical in photo-elicitation, with the participant’s written text providing anchors in which to engage with their photographs and lessen the likelihood of the images being read purely from the viewer’s perspective. This is especially crucial in cross-cultural contexts where there is additional risk of power-laden Western cultural assumptions – such as framing the ‘developing world’ as passive victims – being projected onto images by Western viewers (Mathews 2018). By engaging in multi-site photo-elicitation this risk is diffused as there is greater symmetry between participants from Western and non-Western sites – each having the choice to engage with photo-stories from any site – as well as contribute their own. This is a key contributions as most photovoice processes limit photo-elicitation to participants’ own photographs (Latz 2017).

### 3.3.2.9 Photovoice, social media and mobile devices

Since the development of photovoice in the late 1990s, there has been a rapid increase in online processes for image sharing through the emergence of the Internet and social media. While their usage as participatory research methods has been limited so far, based on preliminary research there seems to be potential in using visual social media platforms such as *Instagram* (Joyce, et al. 2015). Simultaneously there has been the rapid uptake of mobile devices capable of sending images over data networks, which have also shown potential for use as a participatory tool (Woolford 2012). However, the handful of studies that I identified were almost exclusively focused in the health domain, and have not been applied to either environmental areas, or multi-sited investigations.

In this project, I addressed the above gap through providing a locally-grounded and geographically-spread diversity of responses for environmental behaviour through social media integrated smartphones. However, when I investigated using some of these techniques I generally found that technological issues prevented their sustained use in the field.<sup>30</sup> One key exception was the adaptation of social media as an internal group communication tool; that is, participants could use it to share their photo-stories and get feedback from their peers or myself. This proved particularly important due to the multiple sites and the flexibility required in the feedback and engagement.

### 3.3.2.10 Exhibitions

Public sharing and disseminating is an important part of visual participatory action research methods (Knowles and Cole 2008). Photographic exhibitions in particular are usually a core part of the photovoice process, and represent a powerful way to translate the ideas and voice behind the photo-stories to a wider audience (Ozanne, Moscato, and Kunkel 2013). Despite this, photovoice exhibitions are generally under-theorised and there is a gap in the literature regarding their actual effectiveness (Latz 2017).

Difficult trade-offs are required in designing exhibitions to balance participant voice with visual effectiveness. Some practitioners even recommend dedicated training and engagement for participants in preparation of exhibitions (Strack, et al. 2010), while others rely on a simple minimalist approach (Nimmon 2007). Latz (2017) adapts Falk's (2009) museum experience model to consider photovoice exhibitions (Figure 27).

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<sup>30</sup> These included local network access issues, SIM card availability, battery capacity.

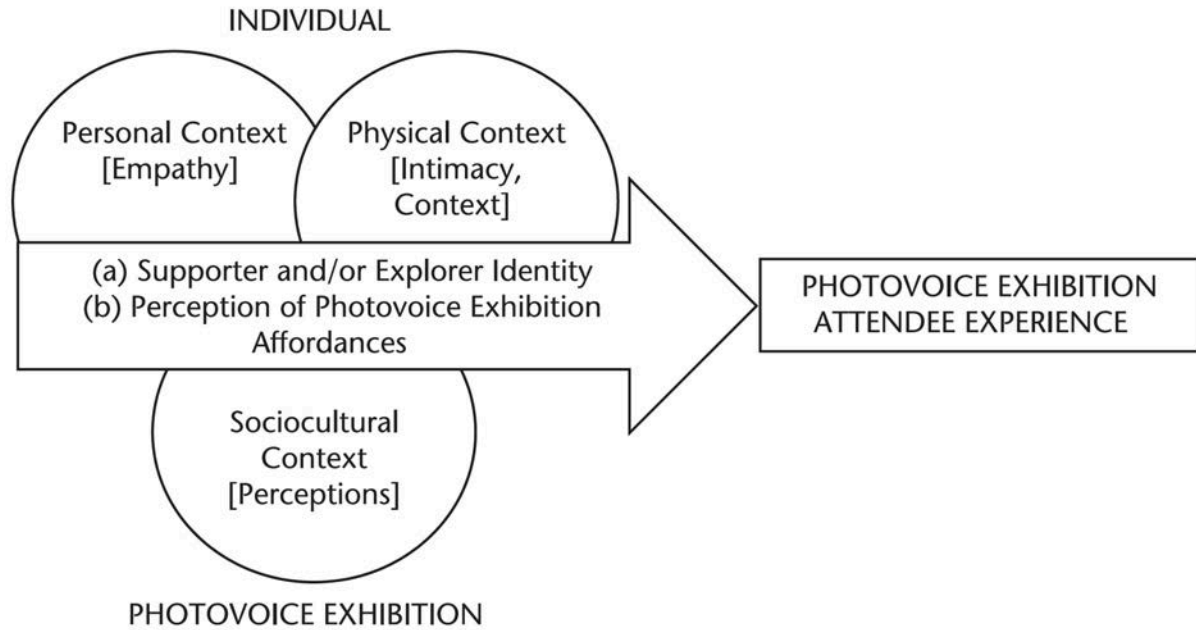


Figure 27 - Photovoice exhibition model (Latz 2017, 127)

Here empathy, as discussed in Chapter 2B, is integrated with physical and socio-cultural contexts to provide a full exhibition experience.

### 3.3.3 Ethical considerations

Ethics are key considerations at each stage of photovoice processes (Latz 2017; Wang and Redwood-Jones 2001; Wang and Burris 1997). This research was approved by the standard university human research ethics committee, however viewing ethics through these narrow bureaucratic processes alone is problematic, as they “*may abrogate the researcher from the responsibility of seeing ethics as part of the ongoing process of research*” (Kellehear 1993, 13). However, it can be challenging to discern broader photovoice ethics from the literature – as Harley (2012) notes, most published photovoice studies do not include specific ethics information, beyond reference to Wang and Redwood-Jones's (2001) seminal photovoice ethics paper. The ethics of privacy covered in the first half of this paper, which Gross, Katz, and Ruby (2003) extend upon, are of less relevance to this research as the focus is on environmental behaviour rather than more sensitive topics covered by other photovoice studies (such as sexual behaviour). The other ethical issues identified such as recruitment, advocacy, and facilitation are highly relevant, and I followed Wang and Redwood-Jones's (2001) proposed best practices on ethics, providing participants and, where relevant, volunteers with the following (Table 8):

*Table 8 - Ethical principles and implementations*

No.	Process	Implementation
1	Consent forms including relevant permission to publish photographs or promote project goals	Provided in English and local language
2	Subject consent form	Provided in English and local language
3	Discussions and mentoring about the use of cameras, power, and ethics underlying photovoice	Included in first workshop and volunteer training
4	Written project background material	Provided in English and local language
5	Letter regarding project scope and camera use for relevant authorities	Provided in English and local language
6	Photographic prints that can be given to their subjects	Provided to participants where practically possible

Through the workshops I strived to ensure project activities fulfilled these practices to the best of my ability, and the project team's ability and capacity at the time, while briefing other volunteers and local partner staff to do the same. It was effective to combine and distribute the written material into a single multi-language handout, although not always possible to return all the photo prints to participants on time due to the compressed timeframe.

The above ethics processes are still limited practices, however, and due to the ethical risks inherent in any photovoice process (Latz 2017), as well as additional risks from being a multi-sited inquiry – such as short timeframe, cross-cultural differences, I implemented additional ethical principles (Table 9):

*Table 9 - Additional ethical principles and implementations*

No.	Principle	Implementation
1	Confidentiality (Photography)	Participants were briefed about the ethical implications of photographing subjects during both photovoice workshops
2	Privacy	Participants were advised about their identity and photo-stories being used or displayed in the reports or exhibitions and can withdraw at any time
3	Expectation management	The dissemination of cameras can create unrealistic expectations of further technological support or involvement. Therefore, the limits of the engagement were clarified with participants, and cameras were donated to selected local partners after the workshops concluded
4	Participant involvement	Participants were provided with clear choices about their involvement, including the right to withdraw from part or all of project activities, at all times

5	Ownership and attribution	Copyright is retained by the participants. Participants signed a consent agreement (translated into their language), which states in simple language the different options for consent around image use, and the right to withdraw their usage permissions at any point
6	Participant photo selection	The photovoice process was specifically adapted for this inquiry included distinct stages to allow for participants own choices in selecting and representing their own stories
7	Cultural sensitivity	Workshop aims and content developed through consultation with local partner organisation, local volunteers engaged to co-facilitate where possible

Perhaps the most important recurring ethical consideration I found was trying to ensure balanced participation given the briefness of the in-country engagements – often just two weeks – that were a key constraint of the multi-sited approach. My response was to return to the same partner organisations where possible through subsequent rounds to provide opportunities for further involvement from previous participants in the new workshops, whether as students, volunteers or interns. However, often the workshops engaged with new student cohorts and it was not always possible to get in contact with or provide opportunities for all past students – thus this issue remained a challenge throughout the program, which I return to in the conclusion.

### 3.3.3.1 Ethics and ‘failure’

This research, like any that attempt emancipatory, feminist or participatory goals, can unavoidably create thorny ethical dilemmas (Olesen 2005; Reinharz 1992; Patai 1991), the key one being issues of power manifest through hierarchies of control throughout the fieldwork process (Wolf 1996). I am inspired by Sandlin, Quiroga, and Hammerand's (2018) response to these dilemmas, who take the stance that *‘rather than intending to solve problems or tensions inherent in anti-oppressive research, we should highlight and explore our own ethical “failures.”* (64). While my own study is coming from a design-methodological approach, rather than the emancipatory-critical perspective of the latter, the lessons of ‘ethical failure’ remain cogent, and can lead to new possibilities (Visweswaran 1994). I highlight my own perceived ‘failures’ throughout the findings as part of research integrity and acknowledging these limitations.

### 3.3.4 Design process data collection methods

I now shift up a level of abstraction to the PAR-driven design processes of the research program itself, of which photovoice is one part. Before discussing the other methods themselves, it is useful to consider the design-process space in which the action-research has been situated. Sanders (2008) developed a concept map to help describe the design research landscape which is useful for situating this orientation (Figure 28). The map is organised around two dimensions, approach and mindset, with approach describing a continuum between research-led and design-led, and mindset describing a continuum between the ‘expert’ mindset of viewing participants as passive informers versus participatory mindset where they are seen as active co-creators.

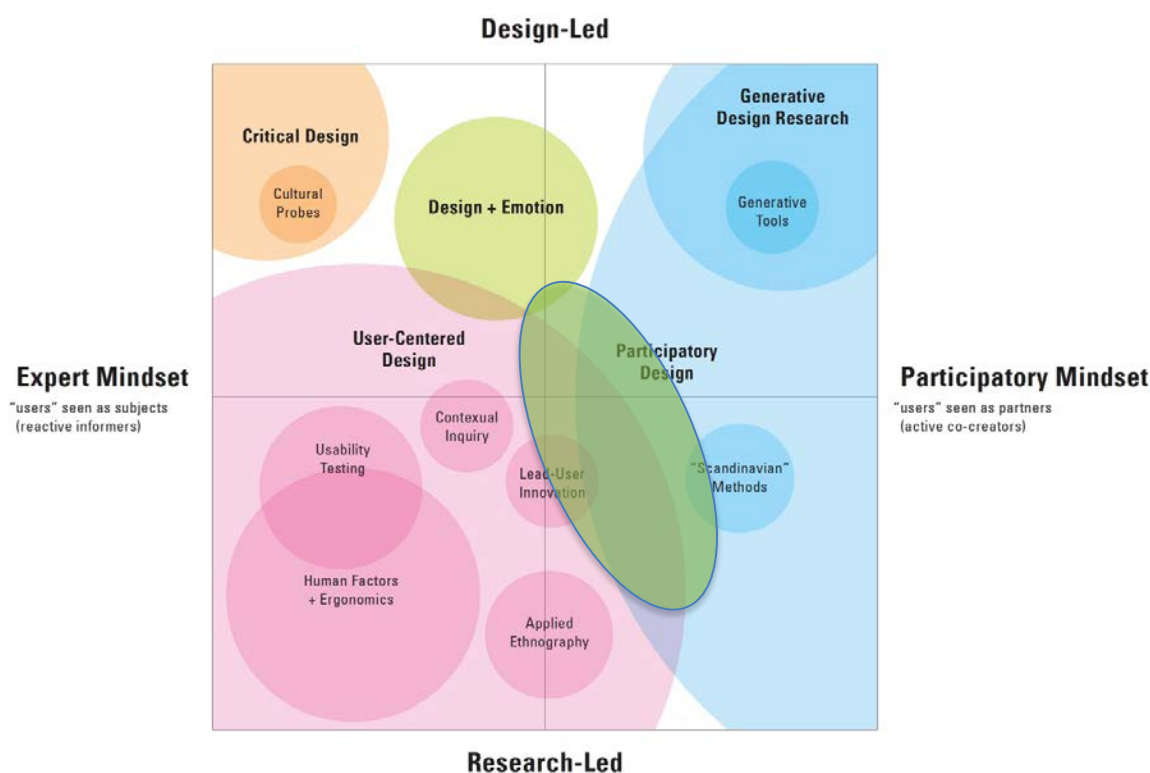


Figure 28 - Design research map (Sanders 2008)

I found it a challenging process to locate my research – the green oval – on the map, as the tensions and approaches had changed so much during the journey. I began in the *adapt* space with a participatory mindset in the lower right quadrant, however as I faced the above limitations, the activities drifted upwards towards the left expert-mindset, while the strongly participative group action projects towards the end as part of *influence* moved it back. Similarly I initiated the inquiry with more emphasis in the research-led *visualise* orientation to understand how environmental behaviours could be represented photographically, which drifted to being

more design-led as the program evolved and its processes developed to become more responsive to the physical sites, with increasing emphasis on the adapt and influence orientations. Selected details of these shifts are further described in Chapter 4.

I now move from the mindset to consider some of the methods themselves. Participatory action research typically employs a large range of traditional and non-traditional methods in practice (Kindon, Pain, and Kesby 2007). To track how the photovoice method itself adapted through the project, I used a range of design methods that fitted within the overall PAR methodological envelope. I deployed these at various points in the PAR cycles, many of which I employed intuitively and only subsequently recognized as a distinctive ‘method’. I discuss a selection below to contextualise within the literature and inquiry – while reserving the specific and detailed discussions of how I ran the methods for Chapter 4.

### 3.3.4.1 Design workshop

Design workshops are a form of participatory design that bundle various co-design methods together (Hanington and Martin 2012). This method is commonly used in the generative phase of project development and may include various ideation activities including brain-storming, mind-mapping, and facilitated discussion.

During the early ‘blue-sky’ program planning stage up to site-cycle 3 this included specific structured design workshops such as the *Foresight Action Model* (Ramos 2013) to generate insights for the overall action-research program (Appendix B2, documentation in Figure 29). I used less structured design workshops on the lower site-level in the first planning phase of each site-cycle with partner organisations to help plan the photovoice workshops, adapting them to the specific site and generally using informal processes (Figure 29).



Figure 29 - Foresight Action Model session (Melbourne)



Figure 30 - Friends of Nature planning workshop (Beijing)

### 3.3.4.2 General reflective and evaluative practices

I facilitated a range of different reflective practices, including participant and partner workshop evaluation (Figure 31), followed by dissemination practices – discursive (critical writing, publications, conference presentations for peer review), and creative (exhibitions and interviews) – finally conducting personal reflections through reflective journaling.

These personal reflections on the design process were essential to discern learnings along the way. I followed these personal action-reflection cycles intuitively. They became explicit later through reflections in the *adapt* orientation, drawing from living theory approaches (Whitehead and McNiff 2006).<sup>31</sup> These intuitive reflections can be thought of through Schön's (2017) theory of reflective practice, which differentiates *reflection-in-action* from *reflection-on-action* – where the former draws on one's tacit knowledge or “knowing in action” derived from direct action-based experience, whilst the latter are post-action reflections (54). During the workshops I *reflected-in-action*, drawing upon my tacit knowledge from years of facilitating photovoice methods; subsequently a *reflection-on-action* position gave essential feedback through post-workshop discussions and participant evaluation.



Figure 31 - Participant workshop evaluation, Jaago Rayer Bazaar, Dhaka

<sup>31</sup> Living Theory approaches focus attention on the experiences and implications of positive change-oriented values that are clarified in the course of an action-research practitioner's self-reflective inquiry (Whitehead 2008). This is included as a footnote only as I draw influence from it rather than actually adapt this as method.

### 3.3.4.3 Reflexive researcher practices

Taking fieldnotes of my own ideas, thoughts and reflections as well as those emerging in dialogue formed the basis of self-reflexivity. While my methodological commitments were most consistently located within participatory processes, developing researcher-reflexivity was crucial from an ethics standpoint (Kendon, Pain, and Kesby 2007). This reflexivity evolved alongside the participatory practices in the form of a ‘layered account’ that allowed for my own voice alongside the data (Ellis, Adams, and Bochner 2011). Since I am immersed in telling this story from various roles through the PAR cycles, I have chosen first person tense to acknowledge this where relevant. My perspective and assumptions also drew upon my previous tacit knowledge (Reber 1989) developed through photovoice facilitation and community engagement in different contexts (Eriksen 2012).<sup>32</sup>

### 3.3.4.4 Process mapping

Process mapping was another core method that I used to enable the above reflections, which gave space for visualisation and pattern-discernment within and between the PAR cycles. The technique originated in industrial engineering for visually representing organisational activity, whereby each process stage is diagrammatically represented in relation to other stages (Hines and Rich 1997). It can be used at any stage of the project – in early stages as planning tools, at mid-stages as self-reflexive practice, or after stage completion as evaluation (Chevalier and Buckles 2013). During the project I did sporadic draft mappings throughout to assist with planning, such as (Figure 32), which I then followed through to higher order process mapping and reflective inquiry at key reflection points. Appendix B3 documents extended mapping.

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<sup>32</sup> Such tacit knowledge is necessarily difficult or impossible to actually articulate discursively; I mention it here to emphasise the influence of the researcher on this kind of participatory research rather than to document it.

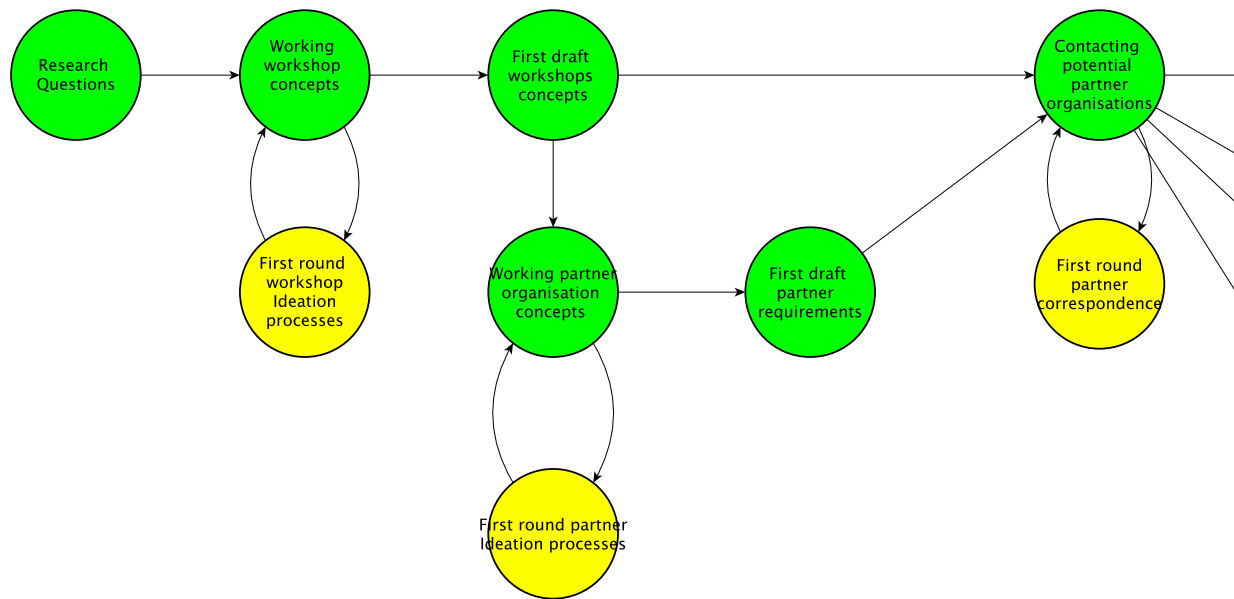


Figure 32 - Extract from workshop-design process mapping

## 3.4 Adapted Methods

While I used the above design methods to collect data independent of its specific spatial/temporal positioning within the inquiry, I also developed other specific methods and approaches to respond to working within the unique multi-sited context, which were responsive to specific spatial and temporal scales. I define these as ‘adapted-methods’, which are discussed below, together with relevant spatial-temporal scales.

### 3.4.1 Spatial and temporal levels

To address practice-based engagement on both the *design-process* level (e.g. workshops), and the *design-product* level (e.g. photo-stories), required differing spatial and temporal levels of engagement and organisation, which I developed from using the multi-sited ethnographic approach described in Chapter 2B.

### 3.4.1.1 Spatial levels

These levels include *program*, *site*, *location*, *partner* and *activity*; an example of their relationships is shown in (Figure 33), and are described in (Table 10). Developing local relationships are a crucial part of the PAR process (Bradbury 2015), and I drew from various PAR approaches and my own experience to formulate the above spatial framework (Chevalier and Buckles 2013). This took considerable time but was essential for community engagement and ethics of participation, as I discuss in the findings section.

### 3.4.1.2 Temporal levels

These levels include *program*, *phase*, *site*, *location*, *partner* and *activity*, and an example of their relationships is shown in (Figure 34), and described in (Table 11). These temporal categories were similarly drawn from PAR literature (Chevalier and Buckles 2013) and my own experience. Together with the spatial categories they form a multiple level ‘screener’ tool to help locate, discuss and organise these participatory activities at different temporal scales (Appendix B1).

### 3.4.1.3 Organisation of spatio-temporal levels

For purposes of clarity and simplicity I use spatial levels alone as organising categories in the subsequent findings sections, referencing temporal levels within these only where relevant to key results. I also simplified these spatial levels by subsuming *activity* into *partner*, and *location* into *site*.<sup>33</sup> The findings in the next chapters are therefore grouped around *program*, *site*, and *partner*.

Appropriate methods are outlined in the below diagrams and tables for each.

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<sup>33</sup> This was possible because: a) city location matched 1-1 with country sites, with the exception of China, having two cities - however as this is not a comparative study this level was not used as an analytical focus, b) consideration on partnering were conducted on site level, so activity-level analysis was made with respect to specific partners, locating this as the appropriate scale.

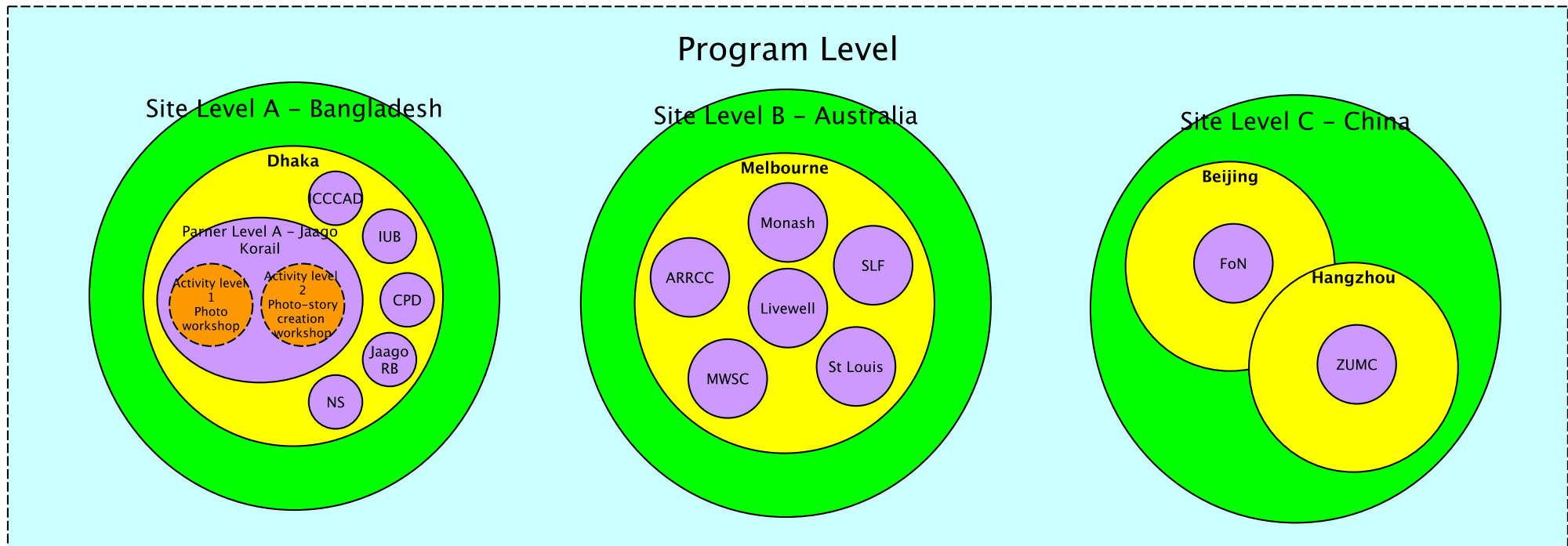


Figure 33 - Spatial levels showing partners

<b>Program-level</b>	This broadest spatial level encompassed the whole photovoice program, which unfolded across 17 successive PAR site cycles, across three countries.	<b>Example (above)</b>
<b>Site-level</b>	This level represented country-based sites – Australia, Bangladesh, and China.	<i>Bangladesh</i>
<b>Location-Level</b>	This level represented cities where local partners were located, each site contained one location (with the exception of China with two).	<i>Dhaka</i>
<b>Partner-level</b>	This level represented local partner organisation(s) which the activities were co-organised with.	<i>Jaago Korail</i>
<b>Activity-level</b>	This level represented the individual specific activities conducted at each site through a single partner organisation.	<i>Photo-workshop</i>

Table 10 - Spatial levels

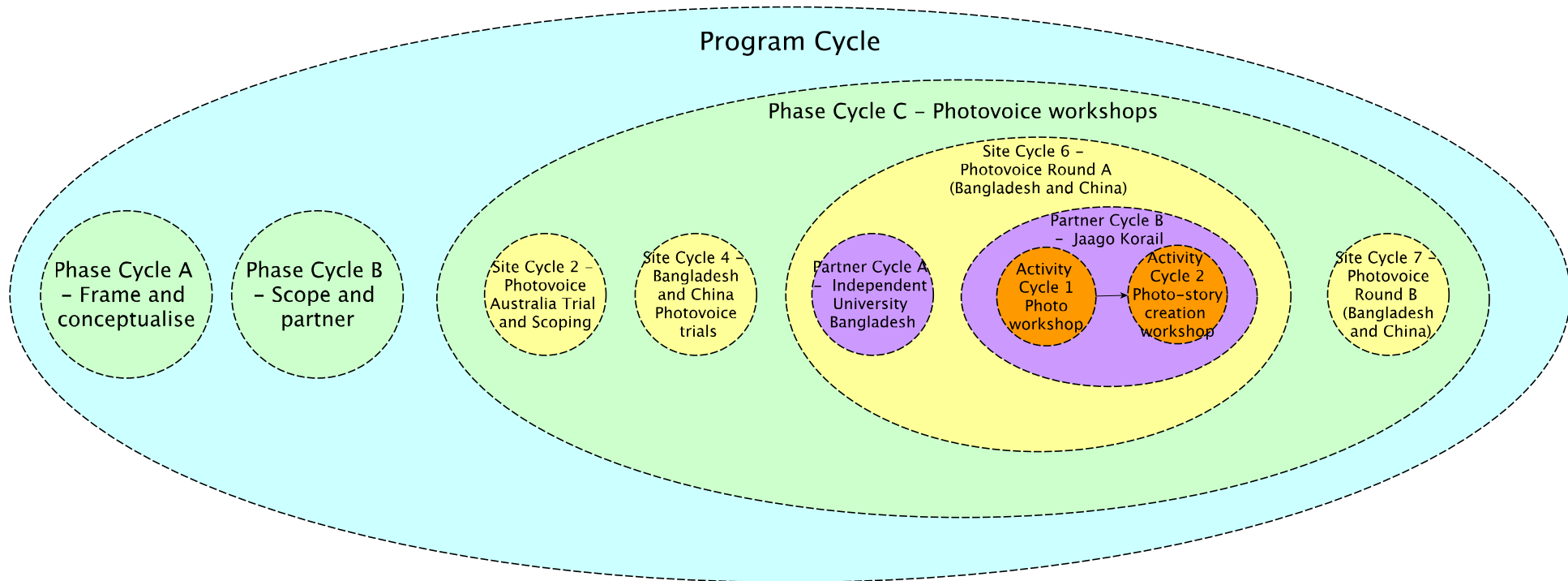


Figure 34 - Temporal cycles

<b>Program-cycle</b>	This broadest PAR cycle encompassed the whole photovoice program, which unfolded across 9 phase cycles across three countries.	<b>Example (above)</b>
<b>Phase-cycle (PS)</b>	These represented methodologically-grouped site cycles, which occurred across different times and spaces.	<i>PS-C: Photovoice workshops</i>
<b>Site-Cycles (SC)</b>	These PAR cycles grouped partner-cycles together at a single site during a single field visit.	<i>SC-6: Photovoice Round A</i>
<b>Partner-cycle (PC)</b>	These PAR cycles grouped specific activity-cycles that were run with the same partner organisation.	<i>PC-B: Jaago Korail</i>
<b>Activity-cycle (AC)</b>	These PAR cycles represented individual specific activities – such as workshops, interviews, which had specific times and locations.	<i>AC-1: Photo-workshop</i>

Table 11 - Temporal levels

## 3.4.2 Program-level design methods

### 3.4.2.1 Photovoice program-level design

Photovoice by its nature is a flexible approach, with Catalani and Mikler (2010) noting that *‘the majority of photovoice efforts alter Wang’s methodology to suit the needs and constraints of researchers’ unique projects’* (447). Wang (2006) first drew upon previous photovoice studies to articulate a multi-stage framework, which subsequently Latz (2017) simplified into the following successive program stages: *identification, invitation, education, documentation, narration, ideation, presentation, confirmation* (60). Although I draw upon some of these stages in my multi-sited program-level design, as virtually all photovoice programs are single-sited, there exists a gap in the literature regarding organising models for multi-sited studies – which the findings in Chapter 4 contributes to addressing.

### 3.4.2.2 Design figurations

In approaching the analysis of the methods used in this project it is useful to consider the concept of design *figurations*. Unlike metaphors, which are located in a discursive understanding of knowledge, a figuration can be thought of as a *‘socio-material way of understanding knowledge which produces difference in the world’* (Lindström and Ståhl 2015, 223). Considering the project through design figurations is a useful lens through which to explore the action-research process.<sup>34</sup> I outline two figurations, *meshworks/networks*, and *programs/experiments* below.

#### 3.4.2.2.1 Meshwork/networks

Ingold (2016) differentiates figurations for *networks* versus *meshworks*. A network is made of intersecting routes – planned in advance – while meshworks arises from interconnected trails – which arise from wayfaring in the present. Thus a network orientation allows us to plan, map and connect actors, while a meshwork one invites improvisation and adaptation to present conditions.

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<sup>34</sup> Here the early actor network figuration of a network description can be limited as it suggests a fixed snapshot of the project at any given stage, rather than the temporal quality of what is emerging through a co-design process (Lindström and Ståhl 2015).

### 3.4.2.2.2 Programs/experiments

This figuration considers scale and adaptation, with a useful definition given by Lars Hallnäs and Johan Redström (2006), suggesting that *'In experimental design research, the design program is what lays out the foundation for a series of design experiments'* (Hallnäs and Redström 2006, 14). The program includes descriptions of 'what' the focus is and 'how' to practically explore it. In this sense the *program*, *site*, and *partner* levels can be seen hierarchically with each as a program with experiments at the level below. An analogous view in multi-sited ethnography is the concept of 'stepwise' – that is conducting multi-sited fieldwork in a sequential, rather than simultaneous, manner has the advantage that each stage can benefit practically and intellectually from insights from the previous ones (Horst 2016).

### 3.4.2.3 Researcher Positionality

In PAR, the positionality of the researcher is critical, where researchers reflect on their own power and roles in the process to be able to locate themselves in the work (Sitter 2017). Often the 'objectivity' of the researcher is explicitly collapsed by involving their subjectivity throughout the iterative processes (Brydon-Miller, Greenwood, and Maguire 2003). Power dynamics and other insider-outsider tensions in PAR have been widely discussed in the literature (Minkler 2005; Minkler 2004; Nyden and Wiewel 1992). This is particularly important in photovoice studies, which demonstrate a broad range of researcher positions, alongside reciprocity, agency, and collaboration (Baker & Wang, 2006; Wang & Pies, 2004; Wang et al., 2000).

I draw on the concept of the continuum of insider/outsider positionality, which acknowledges that researchers who are initially outsiders are more common in collaborative research (Herr and Anderson 2014). Being an outsider myself in engaging with local partners and communities, I adopted a 'cultural humility' approach which recognises that although no one can truly become 'competent' in another's culture, we can approach cross-cultural situations through reflecting on our own biases and invisible privileges, showing openness to the culture and different reality of others, and a willingness to listen and continually learn (Tervalon and Murray-Garcia 1998).

Starting from the specific role of researcher, I found my position evolving through repeated cycles containing overlapping roles of designer, facilitator, curator, negotiator, and coordinator, discussed in Chapter 4. Both the aspects of the roles themselves, and the distinctive lenses that each provided for the unfolding research, provided knowledge contributions throughout the site-cycles (Minkler 2004).

### 3.4.3 Site-level design

Situated one organising level below *program-level*, the *site-level* represents the discrete geographic sites, in which I explored different forms and levels of participation. Developing the site-selection and partner organisation-selection methods provided some principles for a more generalised multi-sited approach.

#### 3.4.3.1 Site selection

Site selection is a core part of multi-sited approaches, the process which may occur organically and cumulatively as new insights and opportunities emerge (Hannerz 2003). However, I found a lack of research regarding the practical details of site selection itself.

A main critique of the multi-sited approach is that it lacks the depth of sustained single-site engagement (Falzon 2016). Photovoice programs typically last over a month and work closely with the participant cohort (Catalani and Minkler 2010). However, as the research focus is the *adaptation* of photovoice methods in the multi-sited context, such an ethnographically ‘thick’ description is not necessarily required. Thus, I consider my workshops here as more like prototypes, testing out participatory methods adaptations while collecting data, rather than any kind of finalised data collection mechanism in themselves.

However, as a key premise of multi-sited ethnography is to obtain richness *across* multiple sites that is unable to be obtained in a single field (Marcus 1995), and as site differences are important to shed new knowledge on the multi-sited field (Coleman and Von Hellermann 2012), it is necessary to carefully choose and justify my own site selection choices. Many studies using the ‘following’ approach are guided by the subject that they are following; in more collaborative-focused approaches, it has been suggested striving for a complete account of the latter interactions (Marcus 2012). However, as I am approaching the inquiry specifically focussing on adapting photovoice for environmental behaviour, I stay close to the method and theme itself, focusing on site and partner interaction through this perspective.

Consequently, following this approach, I selected three countries – Australia, Bangladesh, and China – for both divergent and convergent attributes (Figure 35):



Figure 35 - Selected countries and demographics (workshop slide)

### 3.4.3.1.1 Divergence – economic, environmental, cultural

My personal background was an entry point into appreciating the differences between these sites. Having grown up in Australia from Anglo-Chinese ancestry and having worked in environmental areas in Bangladesh and China previously, I could see the potential for these differences to provide fertile ground to explore environmental behaviour. I briefly elaborate on these in (Table 12) for basic background – more detailed considerations are outside the research scope.

Table 12 - Divergent country value indices

Area	Measure(s)	Details
<b>Economic development</b>	<i>Gross Domestic Product (GDP) per capita</i>	Widely accepted, yet critically challenged economic development index <sup>35</sup> , with correspondingly differing levels of global responsibility according to an environmental justice perspective (Russell 2012) as well as adaptive capacities (Eriksen, et al. 2011).
<b>Ecological impact</b>	<i>Per capita earth overshoot</i>	The number of planet Earths it would take to support humanity's collective ecological footprint if everyone lived like individuals from a given country. An ecological footprint is defined as the productive land area used to support a population's consumption and process its wastes (Wood et al. 2015)
<b>Population and population density</b>	<i>People, people/sq km</i>	Population is a key driver of collective environmental impact, along with ecological footprint. Population density can also affect environmental impact and behaviours.

<sup>35</sup> The reliance on GDP as a measure has a range issues including narrowness of its scope, issues with standardised accounting, and lack of accountability for externalities (Costanza 2009).

<b>Climate change vulnerabilities</b>	<i>Vulnerability index ranking</i>	Bangladesh ranked most vulnerable (#6), followed by China (#31), then Australia (#38) according to vulnerability index ranking (Kreft, et al. 2013). <sup>36</sup>
<b>Cultural values</b>	<i>Hofstede scale</i>	Cultural values scale that includes 6 dimensions – <i>individualism-collectivism; uncertainty-avoidance; power-distance, masculinity-femininity; short-long term and indulgence-self restraint</i> (Hofstede, Hofstede, and Minkov 2010). These values correlate towards differing perceptions of environmental values and relationships with the environment.

Out of these countries, I selected the cities of Melbourne (Australia), Dhaka (Bangladesh), Beijing and Hangzhou (China) based on scoping visits to determine appropriate partner organisations (Figure 36).



Figure 36 – Research Sites (Google Maps 2016)<sup>37</sup>

<sup>36</sup> Note that climate impact levels vary considerable at different scales and national vulnerability does not necessarily infer city level vulnerability (Reid 2009).

<sup>37</sup> This image is reproduced from a workshop slide to orientate the participants with the project background.

### 3.4.3.2 Convergence - cities and partners

The above *divergence* in site selection is complemented by a *convergence* through choice of specific cities sharing similar characteristics of contemporary urbanisation as well as hosting partner organisations. The relevant similarities of globalised urban experiences include: disconnection from natural environments, population density, and increasingly specialised divisions of labour (LeGates and Stout 2015; Harvey and Harvey 1989), which provide a common background to situate the above divergences.<sup>38</sup> These similarities may also suggest some shared perspectives regarding urban human-nature relationships (Chew 2015).<sup>39</sup>

Although I initially framed the analysis as a cross-country comparison, with cities chosen to ‘represent’ countries, I found this representational model to have critical limitations in a multi-sited ‘following’ approach, as the key variables change significantly between sites (participant categories, local partners, workshop methods). These concepts of divergence and convergence are thus more relevant to the field sites for the purposes of local partner organisation engagement – the latter which form actual sites of participant engagement – rather than a basis for specific cross-country comparison.<sup>40</sup> The local partner organisations, rather than generalised country or city characteristics, ended up *situating* the sites in this inquiry, which I consider next.

### 3.4.4 Local partner engagement

Community partnerships are essential to PAR methods for developing community ownership, accessing participants, cultural sensitivity, and effective program planning (Minkler 2005). Challenges of local partnerships include program alignment, articulating community and organisational benefits, and limited resources and/or staff time (Israel, et al. 2006). Following the thematic foci articulated above, I scoped and engaged with organisations based on their environmental, urban, and participatory characteristics (Figure 37).

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<sup>38</sup> For instance, an increasing division of labour is seen in Durkheimian sociology as producing an abstracted relationship with nature (Biernacki 2002).

<sup>39</sup> This is not suggested a unitary experience of nature, rather that it may be convergent enough to compare ‘apples with apples’ rather than oranges. A further discussion can be found in Chew (2015).

<sup>40</sup> Urban sites were chosen in preference to rural as environmental actions and engagement may be too divergent in the latter, as well as practically unfeasible given time and resource constraints.

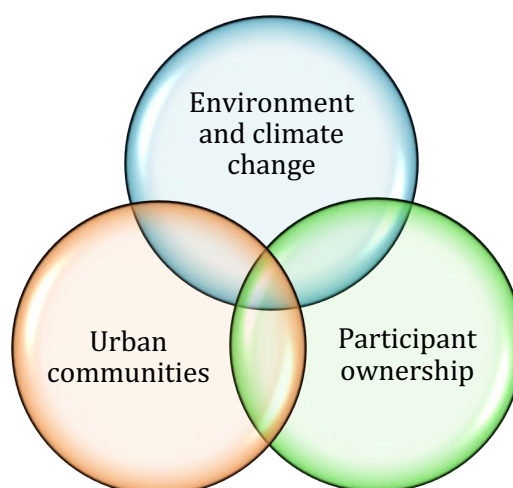


Figure 37 – Partner selection criteria

Following general PAR principles of partner engagement (Bradbury 2015; Chevalier and Buckles 2013) and my own tacit knowledge, I developed the following engagement approach (Table 13):

Table 13 - Local partner Engagement approach

No.	Stage	Activities
1	<b><i>Scope</i></b>	Desktop research New/existing NGO directories Personal contacts/networks
2	<b><i>Engage</i></b>	Calling (hot or cold) Sending project brief Assessing organisational alignment
3	<b><i>Meet</i></b>	Physical visit Project presentation Assess thematic alignment with existing programs Resourcing requirements (staff, budgetary) Tentative logistical alignment (dates, locations)
4	<b><i>Confirm</i></b>	Follow-up emails Confirm logistical alignment (dates, locations) Confirming local staff contacts and capacity
5	<b><i>Implement</i></b>	Run program

Navigating different partnership needs are essential within the broader photovoice stakeholder ecology. Gustafson and Al-Sumait (2009) show typical needs of four stakeholders regarding environmental photovoice project design (Figure 38). As they form mediating entities between the researcher and the participants it is essential that they share similar values and ethics of participation. For the current research the main relationships were between myself as organiser/facilitator and the participants, with the sponsor's (local partner) involvement being crucial yet highly variable – discussed in more detail in Chapter 4.



Figure 38 – Example stakeholder relationships needs (Gustafson and Al-Sumait 2009, 17)

## 3.5 Data analysis methods

To summarise here, I developed the above 'adapted-methods' to explore the process of photovoice adaptation to the multi-sited context across multiple spatial-temporal levels, whilst collecting various process-level data. I now turn to the analytical methods that I used to analyse this data.

### 3.5.1 *Contact zone and mixed methods*

I use mixed methods as an analytical approach to more fully capture the complex process and results of visualising environmental behaviour. Much of the environmental behaviours discussed in Chapter 2 and shown in (Figure 11) remain within the mainstream discourses of sustainable development, with an underlying positivist development paradigm (Grist 2008), that tends to have empirical-realist epistemological assumptions (Sachs 1997). Yet, analysing exclusively through this lens can limit the full consideration of human subjectivity and human-environment relationships that emerge through the photovoice activities. Thinking of the exploration in terms of Pratt's (1991) concept of a 'contact zone' between the different intersecting knowledge systems provides a way of addressing this; Pratt states the "*arts of the contact zone*" include "*identifying with the ideas, interests, histories, and attitudes of others; experiments in transculturation and collaborative work*" (40). This approach invites the exploration of activities taking place between different actors, each with differing relationships – such as workshop participants, technology, natural environments, cameras – rather than arguing for the superiority of one over another. As such it invites multiple analytical strategies that provide different perspectives on these actors and activities.

A key example from my study is the photo-story analysis process that I conduct as part of the *visualise* orientation. Although the environmental behaviour theme draws from the above empirical-realist assumptions, the analysis of the data emerging from such engagements need not share this approach. Indeed, it is worthwhile to find approaches that are complementary so as to ‘read against the grain’ to consider more subjective or relational qualities. Furthermore, as the data collection is through qualitative participatory visual methods, this opens up divergent analytical strategies for exploring the resulting photo-stories. For example, following Allen's (2011) consideration of multiple approaches to reading participant-created photographs, the same image may be analysed using either a realist approach – using strategies such as content analysis – or a relational approach exploring at the relational-network qualities of the image.

These two approaches – *realist* and *relational-materialist* – thus form two distinct yet complementary methods that I used to analyse the photo-stories and other data. I outline them in more detail below.

### 3.5.2 *Realist approach*

From the realist viewpoint, at the most basic level, photographs are seen as evidence of external reality, offering a unique access into this reality. This view is characterised by visual anthropological approaches intending to yield specialised insights into the ‘field’ inaccessible via other means (Mead 1995), as well as photographic genres such as documentary and street photography. While realist epistemologies are highly contested (Piper and Frankham 2007; Rose 2016), they remain a powerful ‘common sense’ view of photographs, characterised by the common adage – ‘the camera never lies’. The power of this perspective lies in its documentary ‘materiality’. As Allen (2011) writes of the strength of the realist view with respect to youth participatory photography:

Data cannot simply be cast as an interpretation, but are grounded in an essence that is difficult to refute... It means that young people’s standpoints cannot be dismissed as just another perspective but are founded in material existence. (768)

Used in the current study, the realist perspective examines the photo-stories as a direct impression of the participant’s viewpoint. As such it lends itself to *content analysis* – to discern how participants photographically ‘documented’ the environmental behaviours around them. I briefly outline this method below.

### 3.5.2.1 Qualitative Content Analysis (QCA)

I use QCA as the primary realist data analysis method to investigate the participant photo-stories and textual responses. Content analysis approaches concern themselves with analysing cultural texts using empirical approaches – namely counting the frequency of particular visual/textual elements. The ideal is that subjective analysis biases may be minimised by having a clear and replicable method (Rose 2016), and that subtle patterns across the collective image archive may be discerned which may be otherwise missed through an individual approach (Lutz and Collins 1993). As such they are particularly suited to large numbers of photo-stories (Wall, et al. 2013), with a set of replicable procedures, including sampling, coding and analysis.

Qualitative Content Analysis emerged from communication theories as a reaction to the perceived narrowness of quantitative content analysis (Cho and Lee 2014). It can be referred to as “*a research method for subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns*” (Hsieh and Shannon 2005, 1278), or in other words “*a method for systematically describing the meaning of qualitative material*” (Schreier 2012, 1). It is useful for this research as coding can attend to both the manifest as well as the latent content meaning of images and text. For photographs this can refer to the distinction between *denotive* and *connotative* meaning (Barthes 2000), which for the photo-stories gives opportunities to engage with both surface and depth readings of their image and textual data. I discuss further how QCA is used as the realist data analysis method complementary to the relational-material approaches in Chapter 5.

### 3.5.3 Relational materialist approach

Relational materialism is associated with a theoretical turn away from the persistent dualisms and the privileging of the transcendent human subject over other actors in humanist traditions, towards an animate, immanent field of relational-material relations (Iovino and Oppermann 2012). Cresswell (2012) notes the following principles in such emerging ‘new materialist’ or ‘non-representational theories’: (1) *the world can be understood as relational rather than essentialist*, 2) *things are fluid rather than stable*; (3) *meaning is produced in action*, (4) *life is defined widely as humans/ with/ plus* (97). I draw on these principles in data analysis through taking an actor network theory approach.

### 3.5.3.1 Actor network theory (ANT)

ANT is a methodological and theoretical approach to social theory that considers the social and natural worlds existing as a collection of actors in constantly shifting networks of relationships (Latour 2005). These relationships are simultaneously *material* (between things) and *semiotic* (between concepts). ANT's key contribution to social research and design has been to challenge the tendencies in both disciplines to see 'human', 'technological', and 'natural' as essentially different categories reflecting ontologically opposed subjects and objects. ANT instead sees them as co-creating in the relational field of the 'natureculture' (Latour 2005). In the participatory design context, ANT has contributed to key shifts in thinking, such as from the design of 'objects' to 'things' (Binder, et al. 2011), where the latter represents not only a physical object with a stable identity, but rather '*a collective of heterogeneous entities drawn together*' (Storni 2015,7). As Westerman (2011, 20) states, '*it does not predict why things happen but rather how.*' – in describing the how, ANT can be mobilised as both a method and a form of analysis.

Two principles are relevant to the current inquiry. Firstly like PAR, ANT is theory *agnostic* – instead of bringing theoretical concepts to actors, it insists on the researcher starting with the empirical situations and carefully observing how actors are brought into relations with each other there (Moberg 2018). Here the human, technological, and natural all become actors within a complex network of relations where agency is distributed and emergent – rather than belonging exclusively to any one actor. This locates the second principle, *generalized symmetry*, where all these actors can be treated symmetrically with respect to their agency or ability to affect each other. These principles are employed to consider the designed participatory processes themselves in Chapter 4, and as a form of photo-stories analysis in Chapter 5.

I selected ANT as the relational-materialist approach for the project for both methodological and ontological reasons. Methodologically, it challenges the role of the research methods in gathering data that is construed as an '*inert and indifferent mass waiting to be in/formed and calibrated by our analytic acumen or our coding systems*' (MacLure 2013, 660). Instead, if we can approach relationally, methods become "...*a distributed, immanent field of sensible processuality within which creative variations give rise to modifications and movements of thinking*" (McCormack 2014, 25). Thinking and analysing relationally thus provides scope to consider how the methods themselves have evolved through the project in relationship to practice, and how this has in turn effected the photo-stories and their engagement in the world.

As we will see, this thinking can challenge the primacy of human agency in the unfolding of the participatory practices, showing how other actors – material (photo-stories, material

processes) and ecological (plants, animals and natural environments) – both influence, and are influenced, by the research process.

### 3.5.3.2 Mixed-methods approach

A mixed-methods approach can be defined as a research design seeking to produce knowledge through the involvement of both quantitative and qualitative methods (Pole 2007), with the emphasis leaning to either quantitative, qualitative or balanced (Johnson, Onwuegbuzie, and Turner 2007). This approach is well-aligned to the research, as it situates the inquiry's three research orientations of adapt, visualise, and influence within the above complementary methodological approaches. Denzin and Lincoln (2008) encourage the use of "*multiple methodological practices, empirical materials, perspectives and observation as a strategy that adds vigour, breadth, complexity, richness and depth.*" (5). My analytical strategy here follows Greene's (2007) dialectical approach to mixed-method research, which aims to create a dialogue between diverse perspectives on the studied phenomena, with the aim to deepen, rather than simply triangulate, the learnings gained. For this I draw upon qualitatively-driven design methods which use a core of qualitative research supplemented by quantitative methods – in this case quantification of content analysis – to provide these deeper insights (Hesse-Biber 2010). Thus, this mixed-methods approach harnesses the diversity of worldviews explored by differing methodologies to help illuminate insights from the complex and multi-layered photo-stories.

## 3.5.4 Participation

The exact nature of participation is a highly contested issue and there are many approaches within social research, two of which are instructive to highlight in the analysis of this project.

### 3.5.4.1 Realist 'typographic' approach

This approach is best exemplified by Sherry Arnstein's (1969) influential analysis of participation that proposes a hierarchical participation typology; from none, to tokenism, to full participation, which can be used to plan or describe participatory projects. In this model, participation is synonymous with the direct intentional influence that participants have over project decisions, which can be evaluated according to a typology, thus ascribing degrees of participation to subjective intention (Andersen, et al. 2015). Cornwall (1996) develops a similar approach

specifically with respect to PAR, highlights varying degrees of community engagement, including co-option, compliance, consultation, cooperation, co-learning, and collective action.

These typographic approaches can be superficially useful to the project in their ability to provide a simple ‘yardstick’ to measure participation at various project stages. However, this approach can overly simplistic at tending to limit participation to formal mechanisms which may miss more subtle relational forms. Therefore, I use this orientation sparingly and combine it with a complementary relational approach, discussed below.

### 3.5.4.2 Relational approach

Following the actor network approach of (Andersen, et al. 2015), participation can be seen differently as an emergent quality of the *network itself* rather than solely from the designer’s process or the actors’ participation in it. They mobilise Latour’s (2004) difference between *matters of fact* and *matters of concern* – the former being universal claims to the nature of phenomena, and the latter opening up these phenomena as processes themselves for analysis. Considering participation as a matter of concern opens it up to being considered more broadly through the following two analytical ANT concepts:

1. Firstly the *partiality* of existence describes a world which is continuously coming into being through actor-networks in partially realised states rather than fully realised subjects (Latour 2000) – participation itself is always in process and not defined by specific events or actors.
2. Secondly, action as *overtaken* refers to individual actor’s participation as resulting from relational network effects, rather than individual qualities of the subject (Latour 2005).

Thus, viewing participation as always partial invites seeing beyond the specific participatory process as the exclusive locus for participation. For instance Andersen, et al. (2015) invokes the children who participated in a previous national study that strongly influenced the framing of their own participatory child inquiry as participating from the outset by influencing and reacting against this agenda. While this long-range temporal perspective is relevant to the inquiry,<sup>41</sup> I first mobilise the participation-as-partial approach to focus on the relational aspects within and between the various project cycles, discussed in Chapter 4.

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<sup>41</sup> For instance the design of my own inquiry was strongly influenced by my experience with designing photovoice programs in India, together with the various local partner organisations relationship to previous collaborative participatory projects.

### 3.5.5 Research Design

#### 3.5.5.1 Program Logic versus Emergent behaviour

In approaching the research design, I found a considerable tension between structured planning and emergent improvisation. The former approach is common in photovoice program design, many of which use a ‘program logic’ approach to model expected intervention outcomes – such as described in Strack (2011), and reproduced in (Figure 39).

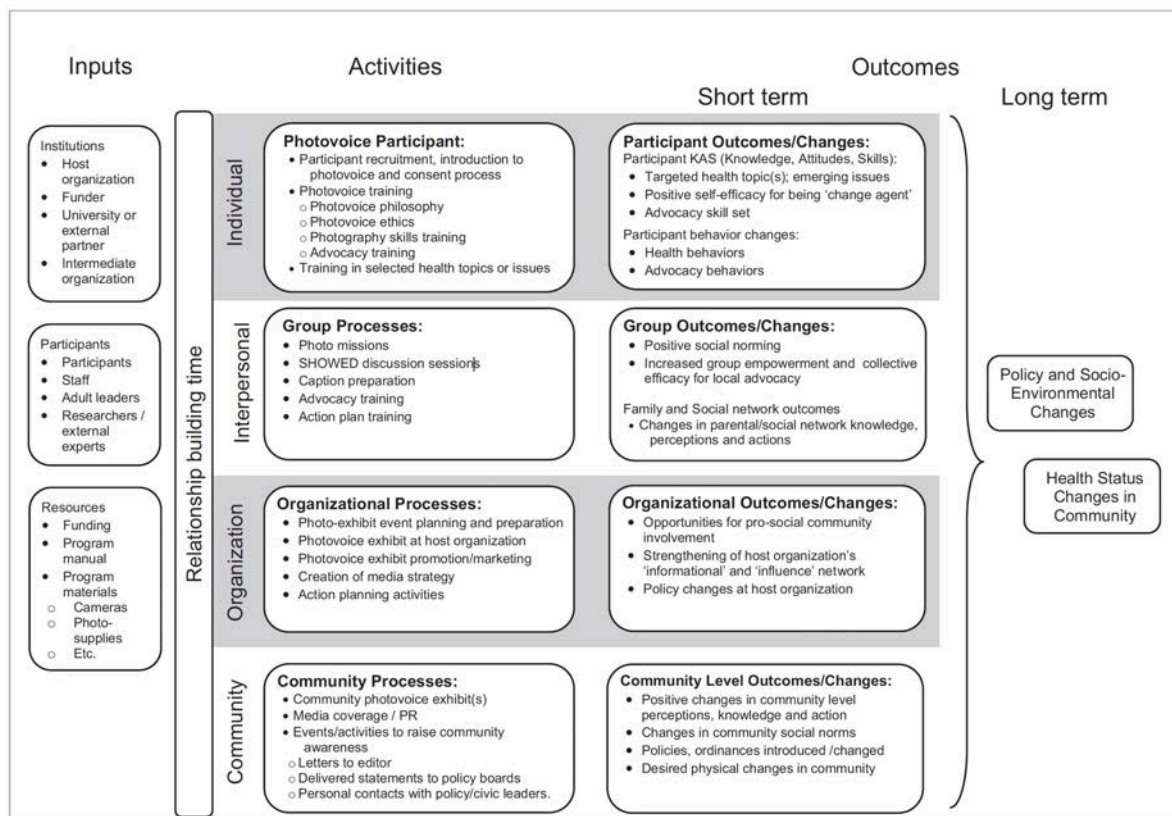


Figure 39 - Social-Ecological photovoice outcome model (Strack, et al. 2010, 631)

This socio-ecological model allows for a clear articulation of the planning, implementing, and evaluation stages, drawing upon a ‘program-logic’ model which is a standardised approach in international development program planning. However, this approach is designed for a single site with a single specific issue for targeted advocacy, rather than multiple sites exploring emergent participatory dynamics. Thus, development of a multi-sited, emergent-orientated variant will be desirable for this inquiry.

On a deeper level, the above model appears to assume a sequential process of planning, data collection, analysis and discussion. However, due to the multi-sited complexity, an iterative

model acknowledging the dynamic movement between these stages – as shown through Conklin's (2006) analysis of designers responding to complex or 'wicked' problems in Figure 40 – is actually more accurate.

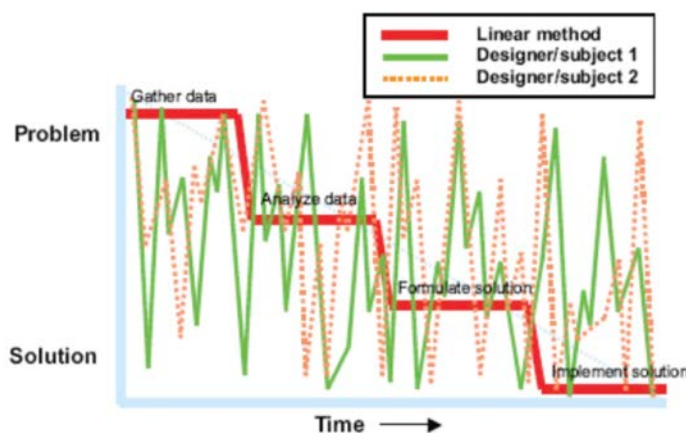


Figure 40 - Designers responding to complex problems (Conklin 2006, 8)

Thus in this perspective the designers move continually between the problem and solution space throughout the project – and in the PAR context this occurs through the PAR cycles.

Nonetheless, I have found it to be a substantial challenge to present such non-linear thinking with this linear exegesis; the current document represents only a particular frozen snapshot of the complex, dynamic and messy PAR cycles that characterise the research.

## 3.6 Summary

In this chapter I have outlined the theoretical and methodological positionings of this multi-sited photovoice exploration. I identify PAR as the methodological framework for the exploration, together with association data collection and analysis methods. The data collection methods consist of photovoice as both a *generative* process, as well as a means of *engaging* participants in the resulting photo-stories through photo-elicitation and exhibitions. Alongside photovoice, a suite of design processes including participant-observer and reflexive methods have helped me to capture the design practice evolution of the photovoice methods themselves across the multi-sited inquiry. This wide range of data, being in the 'contact zone' between different knowledge systems, invites a *mixed-methods* approach to data analysis. I define two approaches – a broad empirical 'counting' approach for exploring an overview of the data using *qualitative content analysis*, then a focused relational 'network' approach for depth insights using *actor network theory*, that together form analytical strands that weave through the adapt, visualise and influence research orientations across the next findings chapter.

## Outline of findings chapters

The findings Chapters 4-6 outline and discuss in three parts a selection of the results emerging from the participatory action research exploration across the *adapt, visualise, and influence* research orientations. These correspond to the creation, analysis and audience engagement with photo-stories respectively. In Chapter 4 Findings A *Designing multi-sited photovoice* I outline the development of photovoice design and implementation methods through adapting the participatory processes with urban youth across Bangladesh, China and Australia. In Chapter 5 Findings B *Photo-story analysis* I analyse the visualisations of environmental behaviour emerging through the resulting photo-stories. In Chapter 6 Findings C *Photo-story audience engagement* I explore the influence of the photo-stories on audience environmental behaviour through adapting participatory engagement processes including exhibitions, workshops, interviews and action projects. I use a mixed-methods approach drawing from content and relational analysis across the three orientations.



Grandpa in his rental, filled with a wide range of second - hand books. He is repairing the table tennis racket and making it available again. (photographer, Hangzhou, China)

*"This is a great photo. Here the grandpa reuse old stuff. He also recycling stuff. I also trying to reuse recycling , reproduce my old thing. Age is just a number main thing is your effort to do something for environment. Yes this Oldman influence me to reuse things. He also sell old book. Another example of using old stuff. He did a great work. I really like it."*

*(responder, Dhaka, Bangladesh)*

# Chapter 4:

## Findings A - Designing multi-sited photovoice

### 4.1 Introduction

In this section I critically reflect on the design process dimensions of how the project has unfolded through the participatory action research cycles. During this development all aspects of the project evolved, including researcher positioning, research questions, participatory methods and dissemination practices. I collected observations on this evolution through workshop evaluations (surveys, interviews, photo-documentation), as well as reflective practices (process mapping, journaling), which I analysed through content analysis and actor network theory to respond to research sub-question 1: ***‘How might we adapt photovoice across multiple-sites?’***

My responses are developed through an *open photovoice* method of experimentation in workshop and engagement processes with urban youth in Bangladesh, China and Australia. By approaching this local engagement I find that conventional photovoice’s *depth* of single-sited participation may be substituted by the *breadth* of multi-sited engagement. Viewing this through a relational perspective shows how both human and non-human actors have assembled and influenced each other through the *open photovoice* method, providing insights for future programs. I present the findings below organised by program, site, and partner levels.

### 4.2 Program-level findings

#### 4.2.1 Program structure

I conceptualised the overall workshop program to explore how participants could visualise environmental engagement in their local area using adapted photovoice methods. Despite initial planning, the actual program emerged unpredictably, being responsive to the partners and participants, forming a ‘messiness’ in both the participatory practices themselves, and the

methodological practices (Askins and Pain 2011). This messiness however was crucial for allowing the space for me to develop the wide variety of participatory practices described below across the 17 sequential site-cycles (Table 14), represented diagrammatically in (Figure 41).

*Table 14 - Action research program summary (Site Cycles)*

Site Cycle	Stage	Time period	Key Activities	Location(s)
1	Conceptualising	<i>Aug - Nov 2015</i>	Develop conceptual basis of project Project literature review	<i>Melbourne</i>
2	First site engagement - scoping and collecting	<i>Dec 2015 - Feb 2016</i>	Scoping partner organisations in Australia, China, Bangladesh and India	<i>China, Bangladesh, India</i>
3	Exhibitions Round A: First experiments	<i>Mar - Aug 2016</i>	Trial photo-story exhibition and engagement techniques Thematic positioning	<i>Melbourne</i>
4	Bangladesh and China Photovoice trials	<i>Sept - Nov 2016</i>	Trial photovoice workshop process Trial multi-sited exhibition	<i>Dhaka, Beijing, Hangzhou</i>
5	Exhibitions Round B: Multi-site and online	<i>Dec 2016 - April 2017</i>	Multi-sited exhibition Docklands Library Online crowdfunding campaign A Interns Rounds A	<i>Melbourne</i>
6	Photovoice Round A - Bangladesh/China	<i>May - Jun 2017</i>	Run workshops to facilitate photo-story creation, experiment with photo responses Cross site empathy analysis A	<i>Dhaka, Beijing, Hangzhou</i>
7	Photovoice Round B - Bangladesh/China	<i>Oct - Nov 2017</i>	Run workshops to facilitate photo-story creation, evolve participant engagement Photo-story analysis A	<i>Dhaka, Beijing, Hangzhou</i>
8	Photo-analysis Round A	<i>Dec 2017 - Jan 2018</i>	Photo-analysis for social-ecological themes	<i>Melbourne</i>
9	Dialogical engagement A	<i>Feb - March 2018</i>	Dialogical engagement A (affective/actions) Bangladesh exhibitions Interns Rounds B	<i>Melbourne, Dhaka</i>
10	Photovoice Round C1 - Australia	<i>April - June 2018</i>	Australia photo workshops Photo-pen pals development Interns Rounds C	<i>Melbourne, Dhaka</i>
11	Photovoice Round C2 - Bangladesh	<i>July - August 2018</i>	Bangladesh workshops photo pen pals exchange Online crowdfunding campaign B	<i>Melbourne, Dhaka</i>
12	Photo-analysis Round B	<i>Dec 2018 - Jan 2019</i>	Photo-story analysis	<i>Melbourne</i>
13	Dialogical engagement B	<i>Feb - March 2019</i>	Dialogical engagement B (exchange/actions)	<i>Melbourne, Dhaka</i>
14	Design process and participation analysis, critical synthesis	<i>April - June 2019</i>	Exegetical writings on design process, thematic and methodology	<i>Melbourne</i>
15	Photovoice Round C3 - Bangladesh	<i>July 2019</i>	Bangladesh workshops, and exhibitions run Independently Group action projects	<i>Melbourne, Dhaka</i>
16	Exegesis development	<i>August - Nov 2019</i>	Exegesis completion	<i>Melbourne</i>
17	Final exhibition launch	<i>Dec 2019 - Mar 2020</i>	Final exhibition	<i>Melbourne</i>

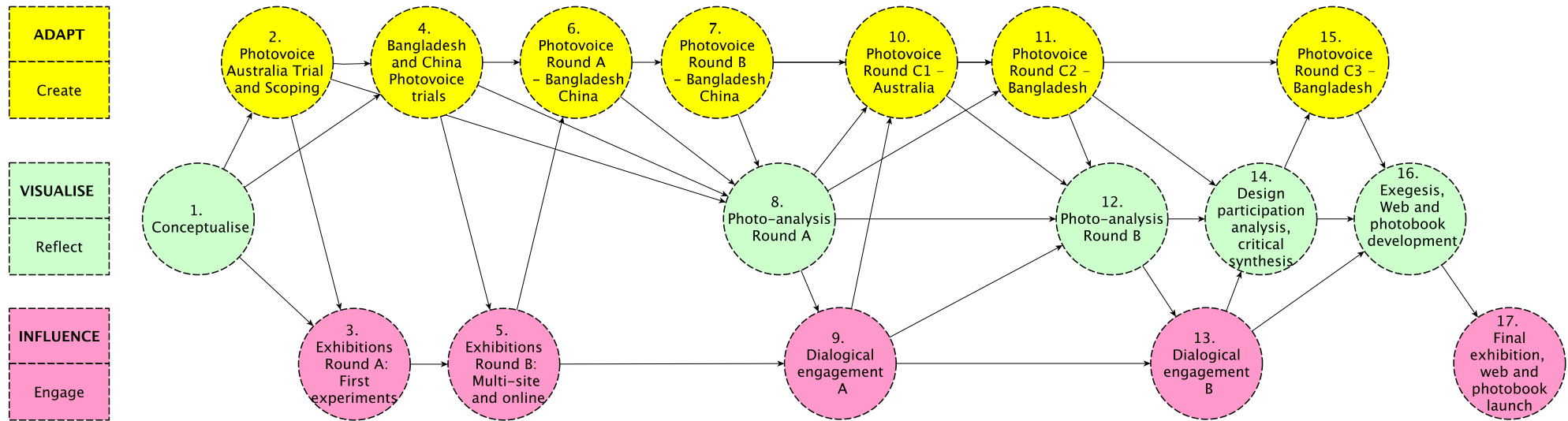


Figure 41 - Full program structure (site-cycles)

The diagram shows the full action-research program, commenced in August 2015 with PhD candidature, with photovoice engagement activities that ran from December 2016 – July 2019 in Australia, Bangladesh and China, concluding in February 2020 with a public exhibition in Melbourne. Each circle represents one PAR site-cycle,

ie the activities ran in a single field visit or stage. They are numbered according to time sequence, with arrows representing the main flow of learnings between site-cycles. The colours represent the three research orientations *adapt*, *visualise* and *influence*, which are shown in a key on the left side together with their program categories.

### 4.2.2 Program orientations

As the site-cycles unfolded across the three research orientations of *adapt*, *visualise* and *influence*, I found that these PAR cycles fell under three related-yet-distinct methodological orientations – *create*, *reflect* and *engage*. The latter described the broad *action*-orientations – what was actually going on in the program with respect to photo-stories – which mapped onto each of the three thematic orientations. Below these are listed the *feel*, *think*, *act workshop*-level orientations which describe the photo-elicitation invitations given to participants during workshops, which are discussed later in the chapter. Together they give a useful way of thinking about the PAR cycles in relation to each other (Figure 42) and are outlined below.

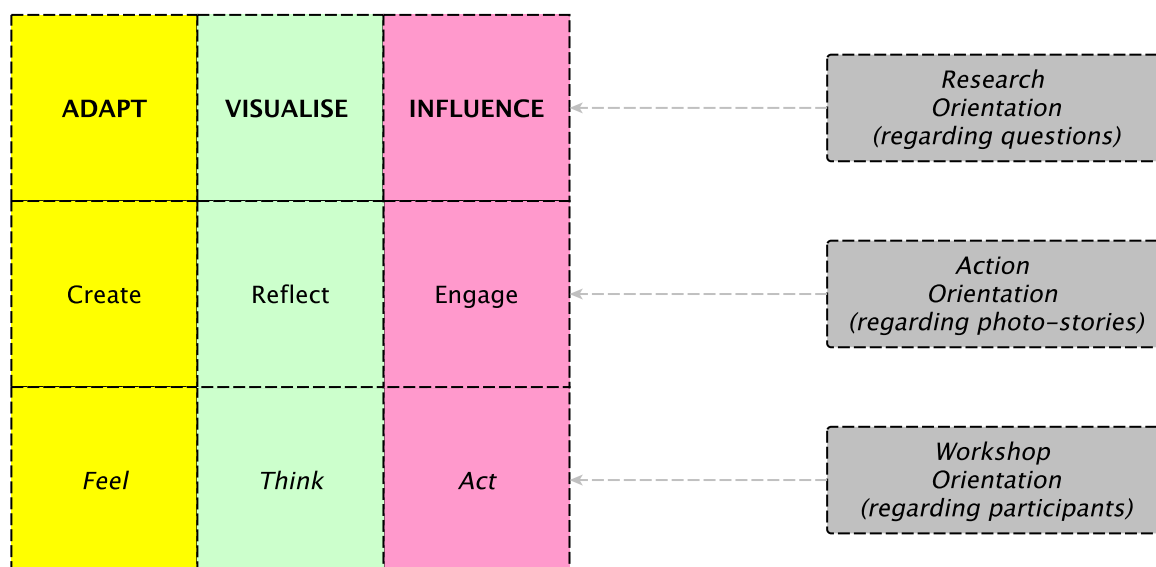


Figure 42 - Program categories and research themes

The *creation* action-orientation represents photovoice creation in the form of photovoice workshops across all sites. This is associated with the *adapt* research-orientation and discussed in further below. The *reflect* action-orientation represents conceptualising, reflecting, and speculating on the project as a whole, primarily through thinking, reading, writing and peer dialogue. All categories and cycles actually included reflective processes; it is only described as separate here to help highlight these distinctive reflective stages. This is associated with the *visualise* research-orientation and these specific visual reflections are discussed in Chapter 5. Finally the *engage* action-orientation represents photo-story dissemination – the creation of participatory spaces to facilitate audience engagement with the photo-stories. This is associated with the *influence* research-orientation and discussed in Chapter 6.

### 4.2.3 *Design figurations*

The action-research program emerged in a tension between figurations of what was initially designed for and what actually emerged unforeseen. My experience with planning the project (Phase-cycle A) came from a combination of both these juxtaposing tensions. On one hand, I determined initial research and action orientations in advance, and designed methods appropriate to the context for data to be collected in order to answer the research questions. On the other hand, when I found that I was in ‘the middle’ – running the activities themselves – I found that the research and action orientations, and ultimately the questions themselves, had to evolve to be responsive to what was emerging from the practice.

On a program-level this unfolded through PAR cycles with initially proposed plans which I would then adapt to local conditions at different organisational levels – such as partners coming on board or withdrawing, workshops being run, cancelled or rescheduled, volunteers and students participating in both prescribed and unexpected ways.

For instance, during the site-cycle 4 workshops at Jaago Korail, Dhaka (Figure 43), we faced computer issues that were solved by a Grade 4 participant stepping up to assist and who, in doing so, became more engaged in the class, while previously we had relied upon partner organisation staff who were of limited assistance due to their time-constraints. This improvised ‘meshwork’ was then translated into a structured ‘network’ during the next round where student mentor roles were formed to allow older students to have specific responsibilities and involvement. An alternative meshwork example occurred when teachers in the same site cycle in Dhaka were found to be overly guiding students. In this case the consequent adaptation and network structuring came through updating facilitator training to emphasise the importance of supporting students’ own views.

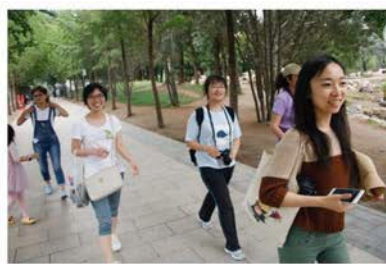


Figure 43 - Jaago Korail workshop

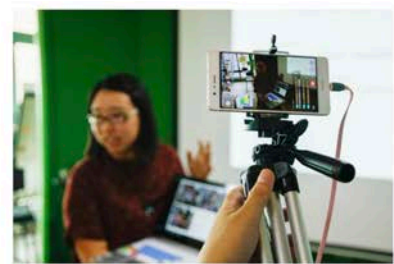
Just as with mesh/networks, there can be a dialectical relationship between experiment and programs. As new insights are gained through experiments, they can cause the program to *drift*, while exemplary examples can *stabilise* the program (Eriksen 2012). For example, the shift from 3-part to 2-part photovoice workshops, initiated through learning and participant feedback in Hangzhou (site-cycle 6), lead to their adaptation or stabilisation through the rest of the program.



Photovoice fb groups



Excursion workshops



Live broadcast workshop



Photovoice wechat groups



TED style presentation workshop



Environmental action selfie

Figure 44 -Workshop-level experimentation

(Figure 44) shows an example of workshop-level experimentations developed at the Beijing site through local partner *Friends of Nature*. I experimented with a wide array of participatory processes at each site both within and beyond existing photovoice practices, many of which did not work as intended or could not be reproduced on other sites; those that did (such as introducing multi-sited photo-elicitation) were adapted in the program, thereby *stabilising* it. This innovation did not necessarily flow in such a linear manner – for instance I could not find an opportunity to use the *environmental action selfie* process developed in Hangzhou site-cycle 7 until over 18 months later, when I was able to include it as an adaptation in the Melbourne photo-interviews in site-cycle 13. Collectively these stabilisations required both the combination of responsiveness to workshop design changes, and acceptance of the latter by the local partner organisations.



Figure 45 - CPD Child club workshop

Another example of program ‘drift’ was in the thematic space – the broadening of the initial thematic focus from visualising *climate change* specific activities to *environmental* behaviour, as the former proved too difficult to communicate with (particularly with primary-age) Bangladeshi participants within the time constraints (Figure 45). As this thematic shift was relatively subtle,<sup>42</sup> and did not involve any change in the participant risk level,<sup>43</sup> I could carry on within the existing suite of materials. For example, (Figure 46) shows a Workshop 1 slide that I used for both climate change and environmental discussion.

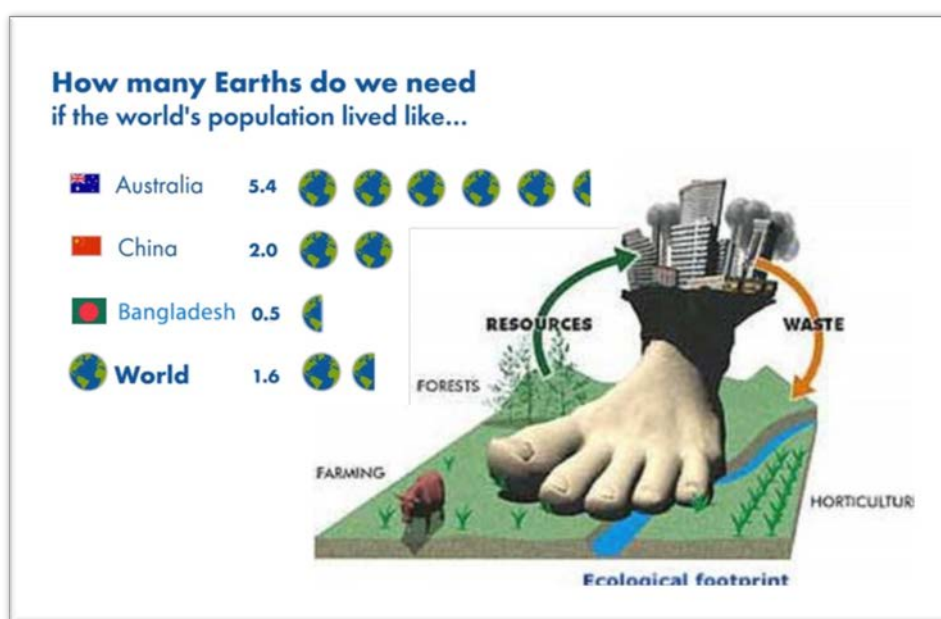


Figure 46 - Environmental impacts (workshop slide)

#### 4.2.4 Multi-sited photovoice program model

Through analysis of the site-cycles and their adaptations through mesh/networks and program/experiments, I found thematic and methodological redundancies and simplified the full program (Figure 41) above accordingly to higher order similarities. This reduced the 17 successive site-cycles to 9 aggregated phase-cycles that represented a ‘*minimum viable process*’ (MVP) for multi-sited photovoice process (Rosemann 2019), shown in (Figure 47) below.

<sup>42</sup> By ‘subtle’ I mean that it did not affect the actual workshop processes, rather just a small selection of the content in the first workshops thematic introduction. By broadening the theme to ‘environment’ meant simplifying the discussions regarding climate change so participants could focus on what local environmental behaviours they wanted to explore, rather than limiting them to only climate-change related. They faced a range of environmental impacts themselves that were broader than climate change so this meant the methods could be more responsive to their local experience.

<sup>43</sup> For instance risk levels would have been altered by larger thematic changes that touched on locally contentious areas, such as sexuality, identity and so forth.

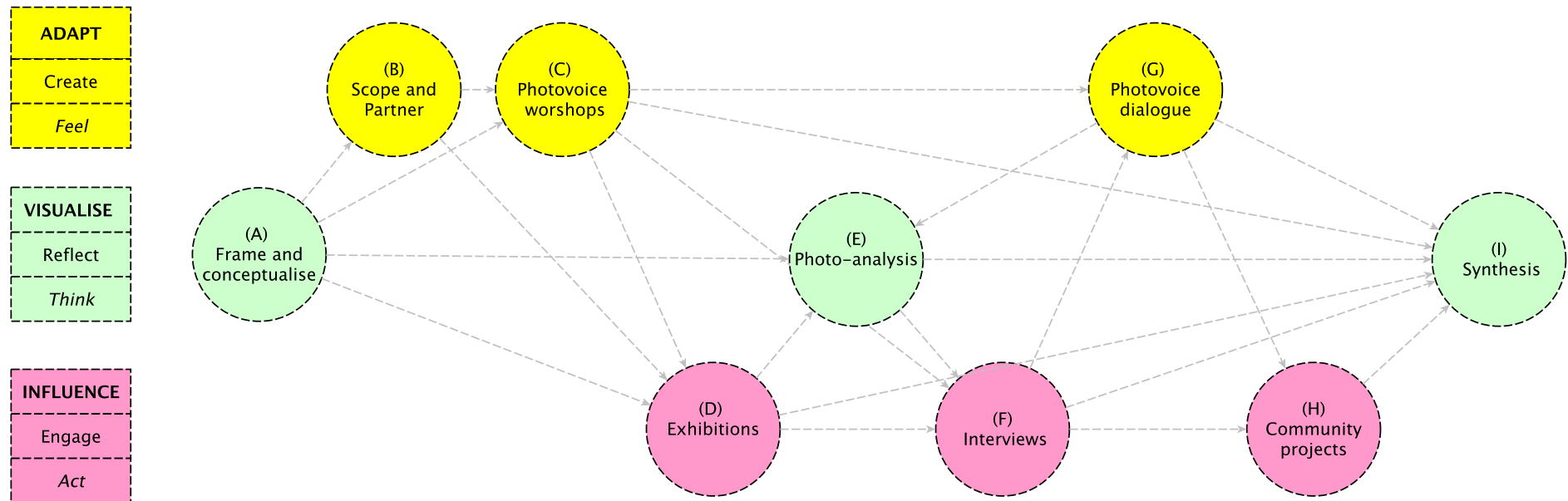


Figure 47- Multi-sited photovoice minimum viable process

The above diagram shows the minimal viable process as a phase-cycle abstraction that remains faithful to the approximate time sequence of how the original site-cycles unfolded. Each circle represents one PAR phase-cycle, with letters ordered according to original time sequence. Arrows have been greyed to represent the generalisable nature of the flow of learnings between phase-cycles in the MVP. Workshop-level orientations of feel, think, act have been added to the key.

However, a MVP has a degree of redundancy – the above configuration of the phase-cycles is only one such ordering, as all but the first two planning and last synthesising phase-cycles can be re-arranged to produce different program configurations. I developed the basic model which ‘generates’ these configurations by simplifying (Figure 47) further to create (Figure 48) and (Figure 49):

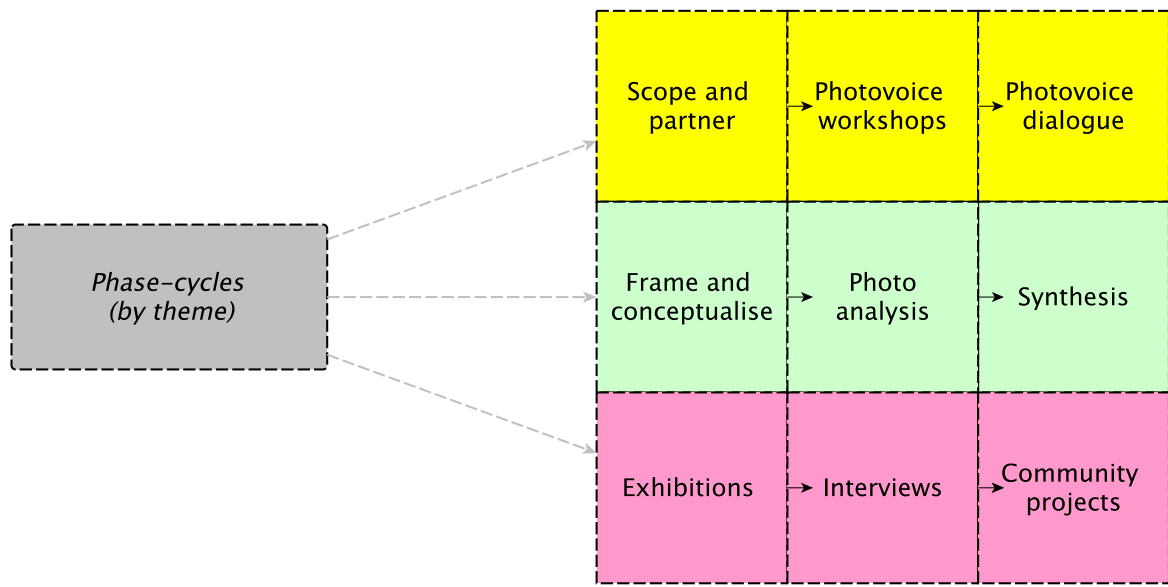


Figure 48 - Multi-sited photovoice MVP - organised by theme

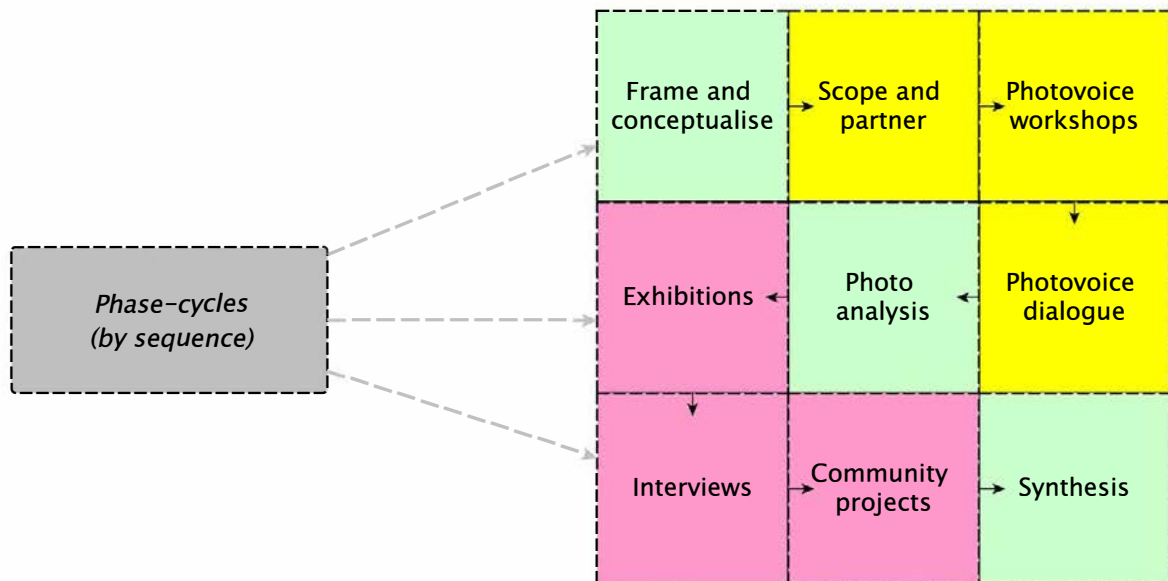


Figure 49 - Multi-sited photovoice MVP - organised by time sequence

These are organised by theme and sequence respectively, and provide the most simplified model for running photovoice across multiple sites. They encapsulate the suite of participatory methods that I developed during the inquiry across the three research and action orientations. The arrows indicate the potential sequence between phase-cycles that emerged in this inquiry: starting from framing and conceptualising, to scoping and developing multi-sited partnerships, to running the workshops themselves across multiple sites, using the latter to facilitate dialogue between sites, analysing the resulting photo-stories, exhibiting them across multiple sites, conducting interviews, and as inspiration for developing community projects, to finally synthesising learnings. Aside from starting with the first two and last steps as part of a standard project planning sequences (Chevalier and Buckles 2013), and the initial photovoice generation, the rest of the sequence could be run in any order.<sup>44</sup> These phase-cycles together with their participatory methods and the site-cycles that they aggregate are listed in (Figure 50).

Phase cycle	Category	Site Cycles
<b>A</b>	Frame and conceptualise	1
<b>B</b>	Partner scoping	2
<b>C</b>	Photovoice workshops	2,4,6,7,10
<b>D</b>	Public exhibitions	3,5,17
<b>E</b>	Photo-story analysis	8,12
<b>F</b>	Interviews	9,13
<b>G</b>	Photovoice dialogue	10,11
<b>H</b>	Community action projects	15
<b>I</b>	Synthesis	14,16

*Figure 50 - Project Phases*

These individual participatory methods are discussed below in detail amongst the three parts of this findings chapter, including ethical implications, and the synthesis of the contributions outlined in the concluding chapter.

<sup>44</sup> Although this order is flexible, it has only been tested empirically in the one sequence shown in (Figure 49) - there will other unknown affects arising from a different sequence.

## 4.2.5 *Researcher positionality*

As the project evolved I became more aware of the different roles I played within it, and the tensions among and between these varied researcher positionalities. I reflect on the key positions and relevant learnings below.

### 4.2.5.1 *Westerner-Outsider*

Although ethnically Anglo-Chinese, I was born in Australia and I am of sufficient Caucasian appearance allowing me to ‘pass’ for being Western with the privileged status that this position can afford amongst the global South (McIntosh 1989). I found that in both Bangladesh and China there seemed to be a clear preference for foreigners to facilitate workshops rather than locals. This made it on one hand easier to engage with partner organisations and recruit volunteers – due to this ‘foreigner interest’ – but on the other hand more difficult to cultivate local ownership.<sup>45</sup> Pillow (2003) warns of the risk of “reflexivity as transcendence,” in researchers using the acknowledgement of their positionality as an unspoken acceptance of somehow transcending these power differences.<sup>46</sup> While I do acknowledge that these unequal power differences cannot be fully mitigated, and were continuously present during the project, they were also highly contextual and ever changing.<sup>47</sup> I attempted to work with them where I could positively in line with the project goals. For instance I regularly represented my Western-outsider position in the workshops to explicate the cross-cultural multi-sited dimensions of the project, and to motivate participants’ photo-story creation in the light of these connections.<sup>48</sup> Working with this positionality offered unanticipated challenges and opportunities throughout the project, with the program structure (Figure 41) likely to have been different had I occupied a different cultural role.

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<sup>45</sup> From many conversations with participants and volunteers they seemed to be attracted to the potential of the Australia-based project offering opportunities or connections to this ‘developed’ country. By extension this cultural power seemed to be concentrated with myself as a Western outsider facilitating the program – local volunteers were not accorded the same interest by participants or volunteers.

<sup>46</sup> For further discussion of this in the context of photovoice see Sandlin (2018).

<sup>47</sup> As Foucault (1990, 91) argues, ‘Relations of power-knowledge are not static forms of distribution, they are matrices of transformation’.

<sup>48</sup> This was achieved for instance by stating that people from the other sites awaited seeing the Dhaka participants photo-stories - the extent of which is difficult to determine, but was regularly motivating for Bangladeshi participants. At times I was uncomfortable as I could not know whether their images would really reach people in Australia, and if so, whether they would actually engage. After a body of photo-stories had been developed at each site I could use them directly to represent other sites instead.

#### 4.2.5.2 (Co-)Designer

Initially, and for much of the project, my position was as a designer – of the overall action-research program, the workshop and other participatory methods content, processes, and evaluation. The ‘co’, or participatory component of this design evolved and varied significantly through the process. The majority of the latter occurred through the local partners, within the envelope of the local partner engagement processes (Table 13). The *engage* stage here prompted workshop design decisions as perspective partners invariably wanted the project description and outputs at the early scoping stage, which I then confirmed in face-to-face discussions and adjusted if necessary at the *meet* stage. These stages could be repeated several times to converge to agreed workshop formats. Larger NGOs – such as *Save the Children*<sup>49</sup> – tended to be very busy and generally sought more tangible project outputs to justify their involvement, compared to smaller NGOs whose greater flexibility tended to allow for more opportunities for collaborative designing.

#### 4.2.5.3 (Co-)Facilitator

I was the main facilitator, and content presenter across the whole workshop program (Figure 51). Although this was necessary at the early workshops as local partners were less familiar with the content, I had hoped to transition to local presenters during the later workshops with long-term partners. I encouraged a larger role for local facilitators with the partner organisations during planning, however they generally advised that participants would prefer to have me facilitate. Aware of the outsider positionality issues identified above, I invited local volunteers to co-facilitate; however the demand for the outsider was consistently high and I was unable to hand over full facilitation until the final workshop rounds where I conveniently left the country and locals took over (site-cycles 11,13). The multi-sited nature of the project meant very brief physical visits (generally 2-4 weeks) which also limited the time to properly train and build the confidence of local volunteers or staff. I found one effective adaptation was to recruit participants from previous workshop site-cycles to volunteer in the next site-cycle which built on their experience and gave a pathway for involvement through the project, some are shown in (Figure 51).

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<sup>49</sup> I met and presented to Save the Children in Bangladesh, China and Australia, but the only office that advanced to partnering was Bangladesh, with engagement outsourced through their local partner CPD.



Figure 51 - Facilitation team at Jaago Rayer Bazar



Figure 52 - Presenting at Jaago Korail

#### 4.2.5.4 Curator

My role as curator was much less pronounced than the above positions, yet held significance across the program. After the initial site-cycles of gathering photo-stories from the Melbourne site and overseas partner scoping, I first took a curatorial role during experimenting with modes of exhibiting the photo-stories (site-cycles 3,5). This was a shift from the highly collaborative facilitator role to one where I worked alone to curate and design the three exhibitions. These exhibitions were located in Melbourne, and thus I was separated in time and space from the local partners and participants in Bangladesh and China who had produced most of the images.

While I was disappointed that I could not undertake the participatory ‘co-curation’ that occurs in some photovoice projects (Bryce 2013), de-coupling the curator’s role from the participatory generative aspects gave the crucial creative freedom to site-specific curation and an opportunity to focus on the purely visual design aspects of the photo-stories. Conversely, to experiment with full participatory curation, I handed the curation role to the local partners for the subsequent three local exhibitions which ran very successfully in Bangladesh and China (discussed in Chapter 6).

Aside from the exhibitions, I curated the growing photo-story archive in various ways to suit the different photo-story audience engagements – such as selecting a subset of 18 ‘photo-story postcards’ that I then used consistently across all the sites for photo-elicitation purposes, with a similar selection for the later interviews in Melbourne (site-cycle 9,11), and selections of

‘engaging’ photo-stories for posters to provide to local partners.<sup>50</sup> As with the Melbourne exhibitions I chose curation over a co-curation process due the creative freedom of the former and practical and positionality limitations of the latter. Thus while co-curation was generally not possible during the project, it proved fruitful in the multi-sited context to situate curation in both fully autonomous (myself) and fully participant-driven positions.

#### 4.2.5.5 Researcher

Besides the above explicit roles, I occupied the researcher role of questioning, thinking, meaning-making, that was the ‘R’ in ‘PAR’ (Figure 22) during most of the remaining times (Chevalier and Buckles 2013). While intuition played a large role in guiding my actions in the other ‘P’ and ‘A’ areas, across the above roles, it was critical thinking – assisted by self-reflective writing – that proved most effective in this domain. The researcher role drove the reflexive inquiry, which proved to be an often challenging balance between finding sufficient space away from the ‘doing’ involved in the participatory practices themselves, but not leaving so long that I was in another site-cycle and the immediacy of observations lost.

### 4.3 Site-level design

This corresponds to the scope and partner square below:

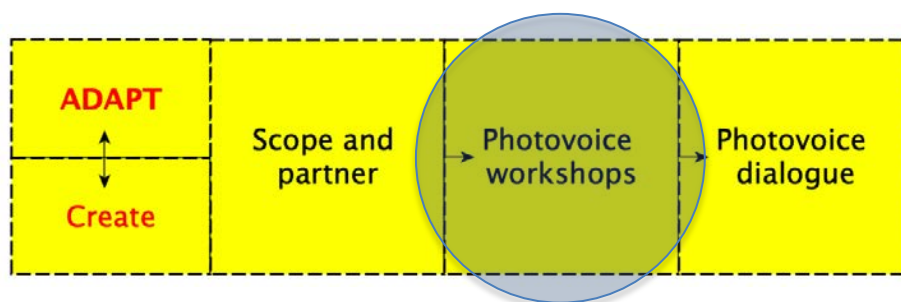


Figure 53- Adapt photovoice methods

<sup>50</sup> At various times partners requested photo-stories that were likely to engage viewers so I would make a selection of the most visually striking photo-stories across a representative sample of themes at the time.

### 4.3.1 Partner engagement

In total I contacted 65 potential community partner organisations across Australia, Bangladesh and China during the scoping phase, physically meeting with 39, of which 20 ended up partnered to host workshop(s) within a site-cycle, of which 9 hosted more than one workshop series across multiple site-cycles (Figure 54).

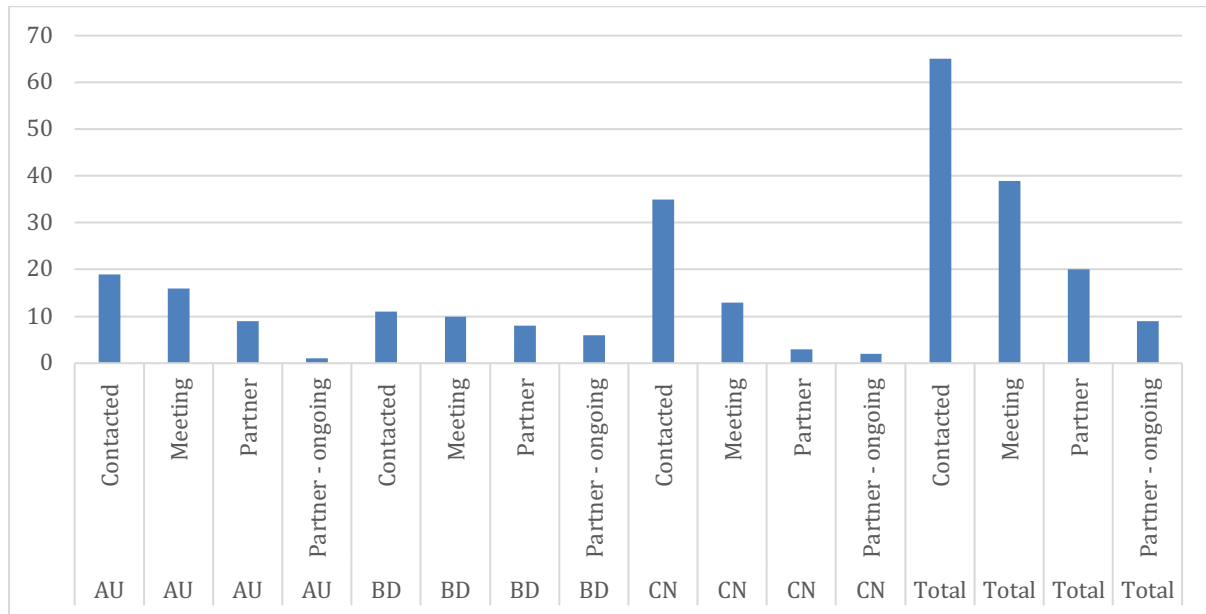


Figure 54 - Partner organisations contact summary

Comparing across the countries, these findings re-iterated the challenges of working across geography and language, and the importance of physical meetings to partner arrangements. China's vast size led to visits to five different cities, contacting 35 organisations, meeting with 13, while only successfully partnering with 3. Language barriers due to my lack of Mandarin fluency were an additional limitation – Bangladesh's colonial legacy has left a high incidence of English-speaking professionals (Chowdhury and Kabir 2014), which made partnership selection easier, even if translators were required during the workshops for both sites. Conversely, scoping in Australia and Bangladesh took far less time having a single city each (Melbourne and Dhaka). Across all sites, organisations only partnered after the face-to-face meetings. This confirmed the importance of physicality to trust creation in launching new projects (Nilsson and Mattes 2015; Zheng, et al. 2002), underscoring the necessity of allowing appropriate time for these trust-building engagements in multi-sited action-research.

Although I initially viewed partnerships as benefiting the program unidirectionally, predominantly for accessing participants, I soon found that this engagement could also be

bidirectional. For instance, both Bangladesh partners ICCCAD and Save the Children Bangladesh found the photo-stories engaging and requested access to use them in their educational communications.<sup>51</sup> Additionally on a peer-to-peer level I informally mentored partner staff and volunteers over photographic and participatory processes.<sup>52</sup> Inversely, I received informal mentoring in the practice of doing localised community engagement that could not be learnt academically. I found this kind of mutual learning to be an essential part of the collaborative process, challenging existing disciplinary fields of knowledge (Facer and Pahl 2017).

Partner engagement also influenced key thematic shifts within the program. Discussions with partner organisations in Bangladesh during photovoice site-cycles 4 and 6 identified *youth* as a focal thematic demographic due to their unique climate-sensitive vulnerabilities,<sup>53</sup> and their relative marginalisation from local adaptive or resilience building decision-making (Bartlett 2008). Henceforth, this insight was then ‘stabilised’ into the subsequent program through focussing on youth engagement through local partners.<sup>54</sup>

The ANT analysis proved fruitful for facilitating mapping and analysis of the transnational network of actors as the PAR cycles developed. I drew upon Frishkopf’s (2018) diagrammatic technique of mapping of emerging PAR networks to assist in monitoring and designing for the PAR cycle evolution (Figure 46-7). This approach started with mapping relationships of the individual people as initial actors at the beginning of the scoping cycle (Figure 55), which then evolved and matured through subsequent site-cycles, building foundations for partner relations (Figure 56).<sup>55</sup> This ground-level network mapping demonstrated the importance of personal relationships in seeding, enabling, and propagating stakeholder engagement in multi-sited contexts (Israel, et al. 2006; Siisiainen 2003; Bourdieu 1986). This has particular relevance in the context of developing multi-sited partner organisation relationships, as these personal connections were a strong enabling factor in facilitating the face-to-face meetings described above that formed the foundation for partner engagement and development (Figure 56).

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<sup>51</sup> Permission was granted for educational campaigns sharing same aims as the project in line with ethics approvals.

<sup>52</sup> At the time of writing partner organisation staff and volunteers from Bangladesh still occasionally contact me regarding future opportunities and so forth.

<sup>53</sup> Both partners Save the Children Bangladesh and ICCCAD had specific youth climate initiatives for the purpose of addressing this vulnerability.

<sup>54</sup> I used the photo-stories by non-youth participants in Australia - that I collected at the beginning (site-cycle 2), through local partner Livewell - throughout the program for photo elicitation purposes as I was unable to conduct the actual youth workshops in Australia until site-cycle 10 - over two years later - by which time a body of responses had already been collected with this photo-story set.

<sup>55</sup> Although Frishkopf (2018) developed this technique in the context of global music collaboration, it is relevant to broader PAR networks.

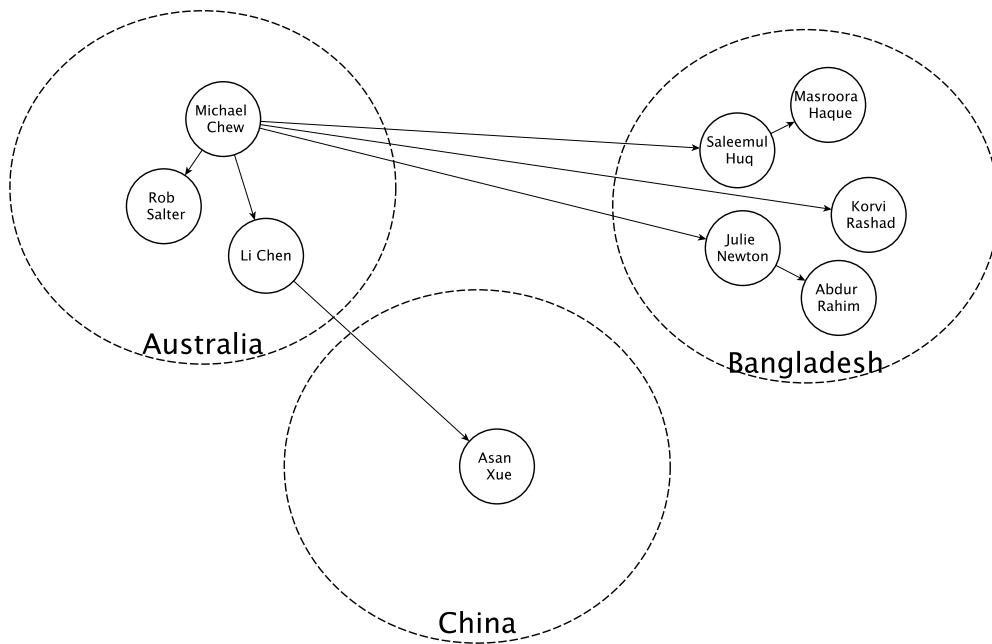


Figure 55 - Initial scoping site-cycle 1-2

This approach started with mapping relationships of individual people as initial actors at the beginning of the scoping site-cycle 1 (Figure 55).

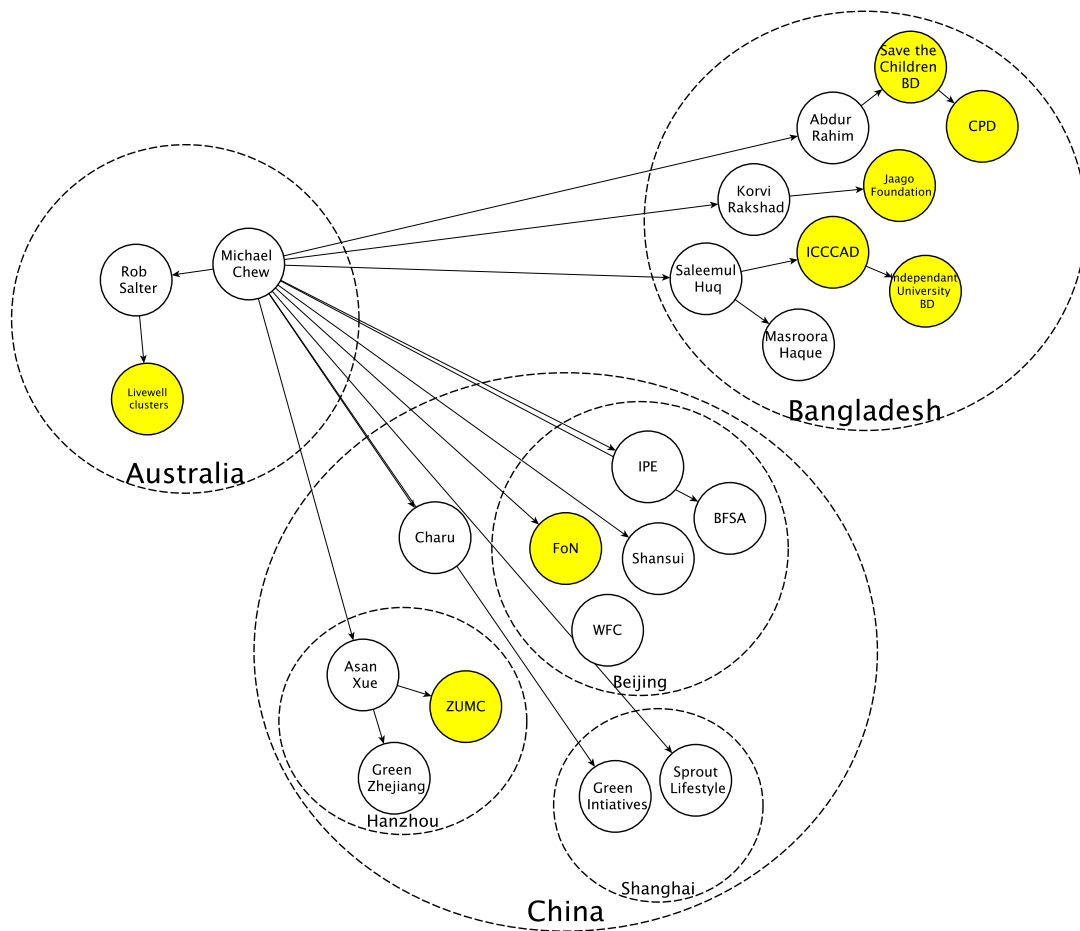
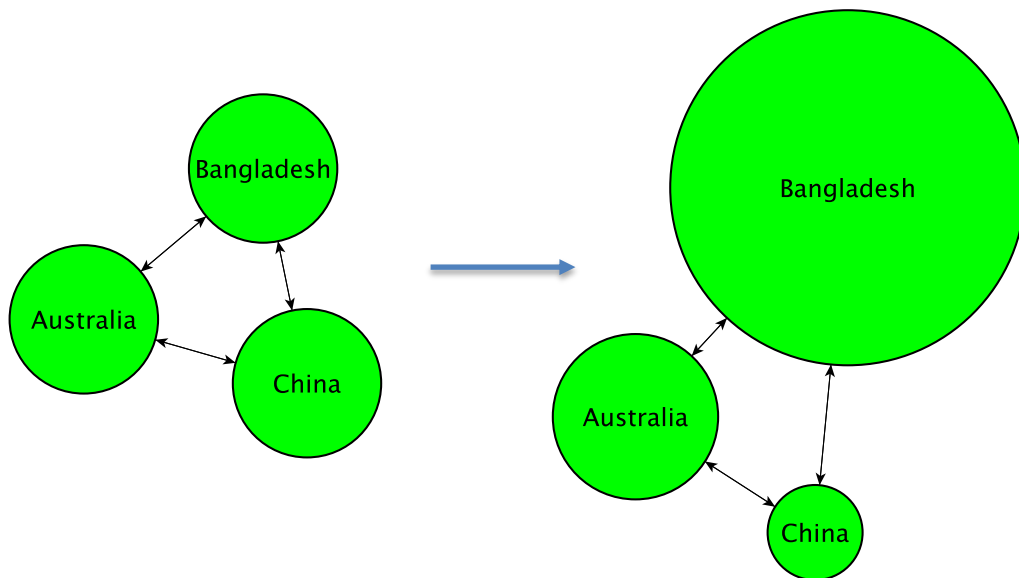


Figure 56 - Follow-on scoping site-cycle 4-5

This initial arrangement then evolved and matured through subsequent site-cycles, building foundations for sustainable partner relations to form (Figure 56). This has particular relevance in the context of developing multi-sited partner relationships, as these personal connections were a strong enabling factor in facilitating the face-to-face meetings described above that formed the foundation for subsequent partner engagement. The yellow shading indicates which organisations ended up coming on board the project as local partners.

### 4.3.2 *Partner relationships*

While I developed the partnerships using the same scoping approach across all countries (Figure 57, left), the unique engagement characteristics of the partners modified this symmetry (Figure 57, right). Here the size of circle represents the relative engagement (photovoice activities ran) with each site, and the arrows indicate the channels of communication that were opened between each. These engagements give insights into how the photovoice processes adapt differently across the sites.



*Figure 57 - Proposed (left) and actual (right) site relationships*

#### 4.3.2.1 Australia (Melbourne)

This was the ‘home ground’ of the program, where my university was based and where I lived, where I conducted the photo-story analysis, exhibiting and audience engagement of the photo-stories and ideas in the most depth. *Livewell Yarra* was the research program’s first partner organisation, which provided advice during the development of the initial project concepts and proposal prior to the research starting. These early influences included the initial thematic emphasis on low-carbon wellbeing, climate resilience and collective actions, themes that were gradually modified in response to challenges in visualising them in the workshop context (discussed below).

As an action-researcher, I found it challenging to recruit further partner organisations in Melbourne, due to the large time commitment of engaging with the overseas sites, in addition to analysis and exhibiting in Melbourne. It was almost two years before other organisations came on board in site-cycle 9 – despite not having the cultural and language barriers that I faced overseas. However as touched upon in the positionality section above, my Western-status may have also been an inverse influence; in my Melbourne hometown I did not have the appeal of the Western outsider to motivate local engagement, like the overseas sites. It was also telling that I did not have the capacity to fully run workshops within Melbourne as I had overseas until I had recruited volunteers myself – a role that the overseas local host would normally handle.

#### 4.3.2.2 Bangladesh (Dhaka)

Having previously lived and worked a year in Dhaka I had some familiarity with the site and the NGO sector there. The latter proved crucial through my previous connection with Dr Huq, director of the climate research organisation International Centre for Climate Change and Development (ICCCAD), who approved the partnership. ICCCAD was crucial to engagement in Dhaka due to; a) thematic synergy through having an existing climate youth program, b) having an existing [visiting researcher program](#) providing that provided key logistical support for short-term external research projects,<sup>56</sup> c) having linkages with other relevant organisations through existing programs, d) flexibility from being a small and relatively youthful organisation. The latter also meant that such engagement could be beneficial to the organisation in terms of capacity building for its relatively younger staff and existing interns whose logistical support was crucial for running the workshops.

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<sup>56</sup> Logistical support included accommodation, working spaces, and access to staff and volunteers.

Due to ICCCAD's local connections it was straightforward to access the secondary partners such as North South University (NSU) and Independent University Bangladesh (IUB). I used my own connections to bring Jaago Foundation and Save the Children Bangladesh on board (Figure 56). ICCCAD's logistical and volunteer support was crucial to organising workshops with these partner organisations and the positive relationships developed with staff provided long-term continuity: I returned to the organisation during five separate site-cycles over three years of coordinating the workshop program in Bangladesh. Bangladesh partnering arrangements in site-cycle 6 can be seen in Figure 58, showing lead partner ICCCAD and secondary partners IUB Environment Club, Save the Children, and Jaago Banani school, together with the high-level workshop processes at each partner.

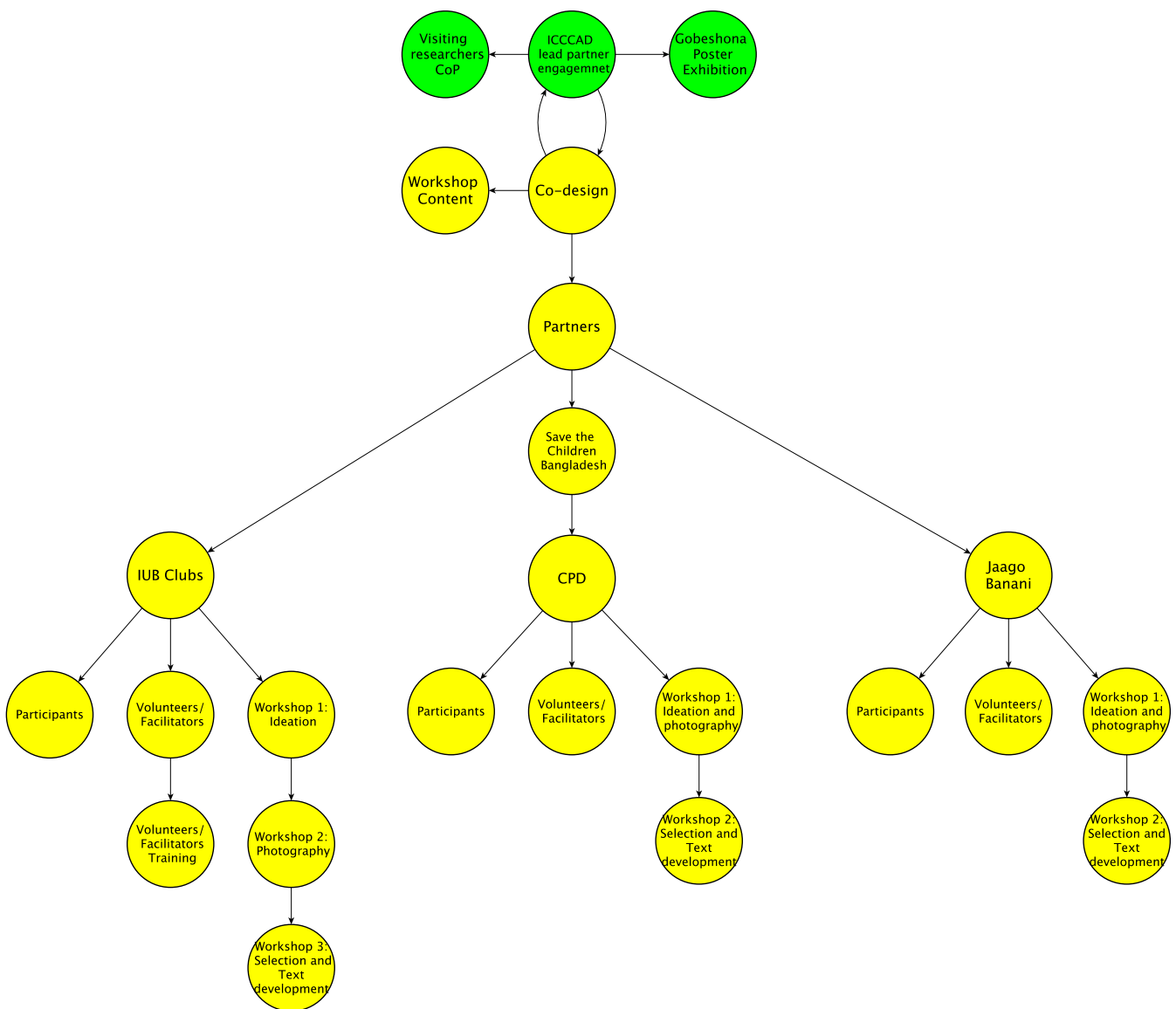


Figure 58 - Typical Bangladesh local part arrangements (site-cycle 6)

#### 4.3.2.3 China (Beijing and Hangzhou)

China proved to be the most challenging site for several reasons. Firstly, I had limited initial contacts and was forced to do cold-calling from existing NGO directories and online research; secondly, due to its vast geography extensive initial scoping was required; thirdly, due to the comparably more restrictive political context, there were far fewer organisations involved in community engagement; fourthly, due to low English literacy I faced greater language barriers and had to rely more on translation. Finally, as no overall lead partner could be found like in Bangladesh, I decided to engage with two organisations that had been the most receptive – however as these were in different cities around 1200km apart, this took more time. As a response I focussed even more closely on the two partners that were engaged and channelled innovation into the detailed workshop level, rather than the site level – for instance this meant experimenting more within the existing workshop format rather than seeking new partners to run existing workshops.

The two partner organisations were very different in scale and structure, leading to differences in workshop processes. Beijing-based partner *Friends of Nature* (FoN) was unique amongst the scoped organisations in having extensive community engagement through local affiliate groups, a selection of which became workshop sites. Despite this network, recruitment proved challenging. In contrast, the other partner based in Hangzhou, *Zhejiang University of Media and Communication* (ZUMC), was a large non-environmental educational institution where I had a prior personal connection with a lecturer. Here there was no need to recruit participants at all as their participation could be integrated into students' existing mandatory curricula – in this case English language studies. The downside was that this approach sometimes led to lack of motivation from participants as they were part of their existing routine classes.

#### 4.3.2.4 Emergent Partnering Models

Through establishing and managing the above partner engagements, I developed several basic generalisable local partnering models (Figure 59). *Model A* shows the direct partnering approach used in China where I worked directly and separately with each partner. Its benefits include simplified direct dealing with partners, and suitability for smaller projects, while limitations include reproducing logistical effort across partners, and difficulty in scaling up. *Model B* shows the simplest single-level *lead-partner* approach, used in Australia where the lead-partner *Environmental Education Victoria* acted as a key facilitator for the two schools at the project initiation and dissemination stages, while being absent at implementation stage.

Coordination with partners was a key benefit here, however the lack of implementation support limited up-scaling ability. *Model C* shows the multi-level lead partner model used in Bangladesh, where the lead partner ICCCAD provided coordination with the other local partners as well as logistical implementation support. The latter was greatly beneficial in-country for practical purposes, and the former allowed a greater up-scaling ability, demonstrated through other partner organisations subsequently coming on board in the later site-cycles (Jaago Rayer Bazar, NSU).

These three partnering models reflected their varied local contexts, and affirmed the importance of adapting to local conditions rather than excessively pre-planning interventions or using an inflexible ‘one-size-fits-all’ approach. Through considering partnerships I was able to take a more broader look at participation, as discussed below.

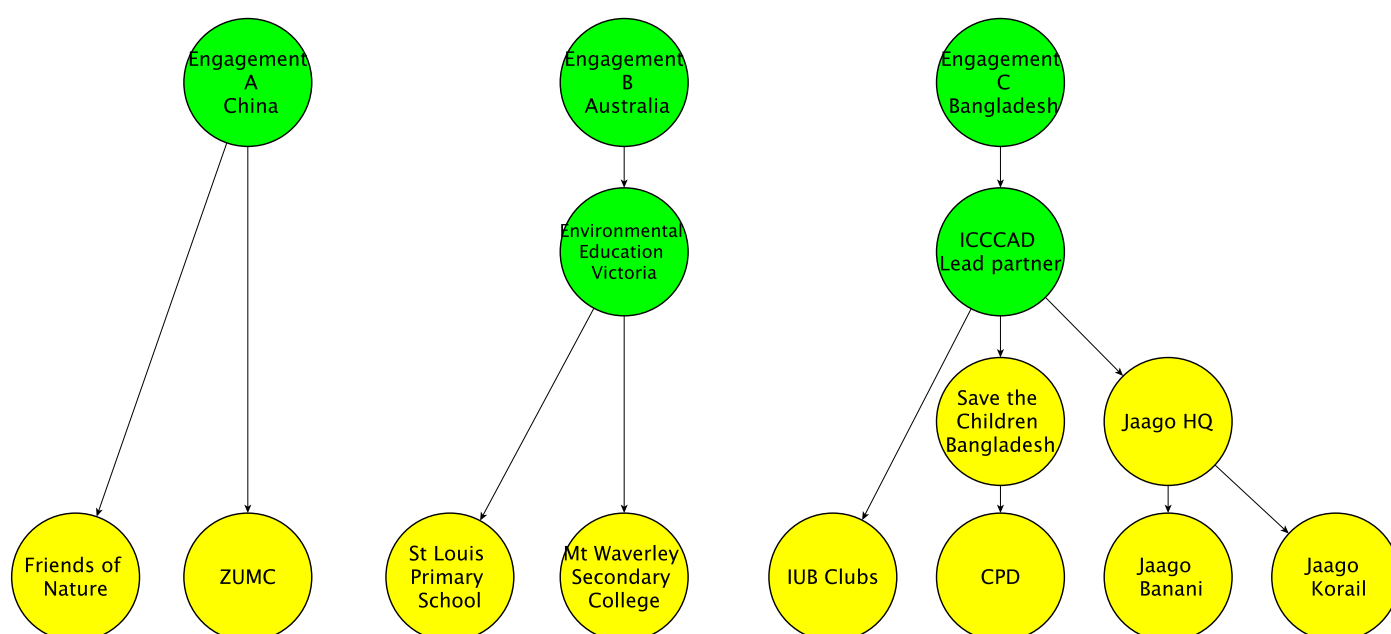


Figure 59 - Partnering models

### 4.3.3 Participation

#### 4.3.3.1 Realist perspective

While participation is a core aspect of the photovoice process, the exact nature of participation at full program level was unknown to me in the initial planning stages. In the early program design and scoping period with potential partner organisations, I presented the project concept

only and discussed how it could be operationalised with partners, including a program-level participatory design process. However, this was not always possible due to partner organisation time constraints and my own time constraints engaging with multiple sites. From a design-specific standpoint this represented the shift from *participatory design* to *design for participation* (Sanders 2002; Simonsen and Robertson 2012), as indicated previously in the design research map (Figure 28). Thus I initially developed the program to be based on participation being framed as belonging to workshops only. This being situated on the lower rungs of the ‘ladder of participation’, seen from the realist typographic perspective previously outlined (Arnstein 1969; Cornwall 1996). From this perspective the only remedy exists in altering the program design to try to achieve higher degrees of participation on the ladder.

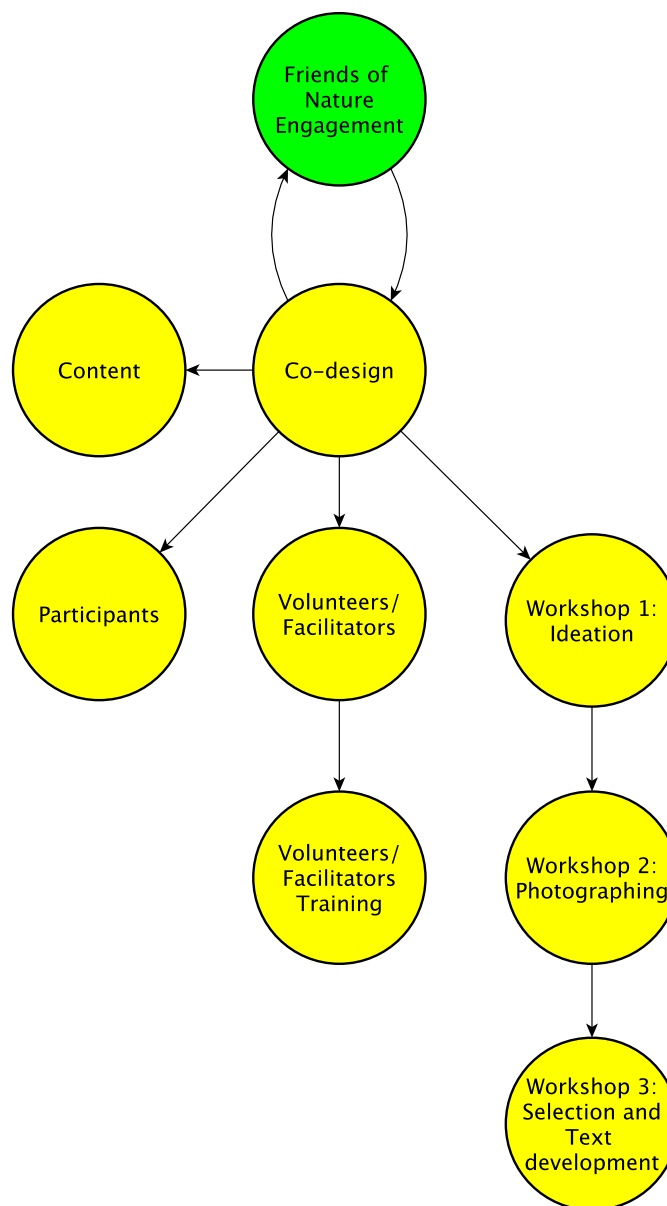


Figure 60 - Participation as shown by China (Beijing) site-cycle 6

### 4.3.3.2 Relational perspective

The relational lens affords an expanded consideration of participation – by viewing participants’ *relationality* I was able to see them as fundamentally *connected* to other actors and with the ability to enrol further relational networks, rather than as *disconnected* individuals (Andersen, et al. 2015).

As an example, the workshop design initially took an individual perspective to participation, emphasising students’ own personal story in the workshop instruction. However, this was challenged by participants in the form and content of their involvement – firstly some requested the option of working together in the workshops, which I adapted into the program. Secondly, they most commonly wrote from a ‘we’ perspective instead of ‘I’ in their photo-story captions, emphasising their collective identity.<sup>57</sup> Thirdly, some participants actively involved others in their photo-story creation, such as family, neighbours, street vendors, enrolling them in participation themselves (Figure 61).



Figure 61 - Students enrolling others on photoshoot (Jaago Korail and Rayer Bazaar)

<sup>57</sup> This is further discussed in Chapter 5, with supporting data in Appendix D2.

By viewing participation as always *partial* invited me to see beyond the individual workshop – or even program – as the locus for participation. For instance, while I did not initially view participants of the first photovoice trials (site-cycle 4) as formally ‘participants’ – first seeing these workshops as prototypes before the ‘actual program’ with its emphasis on ‘data collection’ – in hindsight I realised the importance of their participation for methodological learning and adaptation.<sup>58</sup> Likewise, the planning meetings with partner organisations – and other advisors that occurred through each PAR site-cycles – enlisted their partial participation, as well as the ongoing public engagement at exhibitions (see Appendix B7 for extract of reflective diary / meeting notes). By viewing participation as a *matter of concern* – as a partial process that was continually present through the program – allowed me to recognise broader practices that gave rise to participation that I had overlooked when I had previously seen only as a *matter of fact*.

### 4.3.3.3 Interns and participation

As the project expanded, I quickly reached my capacity to manage the growing tasks, and I developed intern roles in response (Table 15). Interns initially assisted with discrete tasks, transitioning to greater roles in the project as their knowledge and confidence increased. This had two specific project benefits, discussed below.

Table 15 – Intern roles and duties

Intern role	Details	Date	Location	Who
Communication Coordinator	<ul style="list-style-type: none"> <li>• Communications strategy development</li> <li>• Social media strategy</li> <li>• Social media management</li> </ul>	2018	Melbourne	Emma Harvey
Web and Social Media	<ul style="list-style-type: none"> <li>• Website development</li> <li>• Content management</li> <li>• Social media management</li> </ul>	2017	Melbourne	Bhuvan Poudel
		2018	Melbourne	Gunjit Aroea / JC Dilemno
Outreach and Development	<ul style="list-style-type: none"> <li>• Facilitate photovoice workshops in Melbourne</li> <li>• Workshop curriculum development</li> <li>• Crowdfunding campaign</li> <li>• Dhaka workshops logistical support</li> </ul>	2017	Melbourne/ Dhaka	Emily Crawford
		2018	Melbourne/ Dhaka	Agam Preetal
Facilitation	<ul style="list-style-type: none"> <li>• Workshop facilitation</li> <li>• Workshop curriculum development</li> <li>• Workshop booking and outreach</li> </ul>	2017	Melbourne	Zoe Enticott
		2018	Melbourne	Kate Wallace
Dhaka Project	<ul style="list-style-type: none"> <li>• Workshop co-facilitation</li> <li>• Workshop and exhibition logistics management</li> <li>• Supporting and liaising with project volunteers</li> <li>• Translation of photo-stories</li> <li>• Maintaining digital camera collection</li> <li>• Maintaining photo-story database, including collecting and printing photographs</li> </ul>	2017	Dhaka	Fabiha Atique / Bayazid Tusher
China Project	<ul style="list-style-type: none"> <li>• Workshop interpretation</li> <li>• Workshop logistics management</li> <li>• Supporting and liaising with volunteers</li> </ul>	2017	Beijing	Chau Zhou
		2018	Melbourne	Yu Xinliu

<sup>58</sup> For instance as previously discussed feedback from these trials influenced reducing of the workshops series from three to two, and a thematic emphasis on youth and environmental behaviour change.

#### 4.3.3.3.1 *Defining and structuring*

The process of defining, structuring, and managing intern roles helped me gain critical perspectives and reflective distance from being previously totally immersed in these processes. For instance, by working with interns in co-planning and co-delivering the workshops that I previously did myself, I could perceive limitations and opportunities I was unable to see otherwise – such as giving mentors greater responsibility or connecting them between sites.

#### 4.3.3.3.2 *Cross-site reflection and participation*

By opening up cross-site interactions to interns I further expanded these reflective spaces. For instance, in each of site-cycles 6 and 10 an intern from Melbourne accompanied me to Dhaka, which opened up another channel for cross-site reflection (Figure 62, Figure 63). This also involved running extensive [crowdfunding campaigns](#) to fund workshop program expenses, including local mentors (Appendix B6). These public fundraising campaigns invited new and broader forms of participation across the program (financial, volunteer, ideation) that were previously limited to being at specific workshop-level. They also affirmed the audience impact of multi-sited photo-storytelling through the experience of developing a successful crowdfunding campaign narrative encompassing not only the individual photo-stories, but the broader story of the project's aims and vision. I found this to be a reminder of the importance of telling the big picture story alongside the multitude of individual participant stories.



Figure 62 - Intern Agam in Melbourne



Figure 63 - Intern Agam in Dhaka

## 4.4 Partner-level design

I turn now to the process of running the workshops themselves, at the partner-level, referring to the workshop series run through specific local partners. This corresponds to the photovoice workshops below:

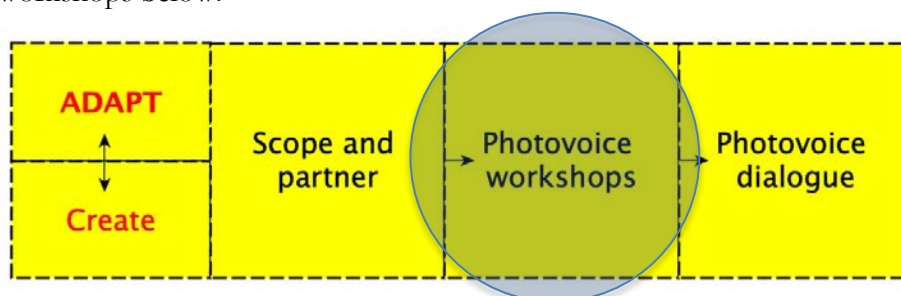


Figure 64 - Adapt photovoice methods

### 4.4.1 Photovoice core workshops

I developed a basic three class workshop series based on my previous photovoice research in India (Chew, Maheshwari, and Somerville 2019), and relevant literature (Delgado 2015) which I subsequently streamlined into a three-stage, two-class model covering:

1. **Ideation**
2. **Photography**
3. **Photo-story development**

I outline these below using the Dhaka site as an example:

#### 4.4.1.1 Workshop 1 - Ideation and photography

In this workshop I introduced environmental storytelling and photovoice, covering basic environmental and photography concepts, including ideation exercises in both areas (Figure 65). After individual reflection time, and discussion in pairs regarding participants' favourite environmental ideas, the participants drew storyboards describing their specific photo-story ideas (Appendix C6). Playing a *facilitation* role in the site-cycle 4 trial workshops, I initially allocated minimal time to ideation as I was concerned by the risk of unduly influencing the participants' photographs. For example Miller, Buys, and Donoghue (2019) in her study of residents in aged care facility found "*The high level of staff involvement and collaborative co-production approach may have influenced residents' choice of "appropriate" subject matter*" (96). Thus initially I guided participants relatively quickly from writing their environmental ideas to drawing their visualisations.



Figure 65 - Primary level ideation workshop in Dhaka (Jaago Korail)

#### 4.4.1.1.1 Ideation adaptations

However, as many primary participants were confused by climate change concepts such as adaptation and mitigation, and faced a broader range of environmental impacts themselves, I expanded the thematic focus to general positive environmental ‘solutions’ – behaviours or actions – allowing participants to select the most visible environmental themes in their locality – such as ground waste and water pollution. Participants also initially produced photo-stories that simply documented the most visible environmental *problems* instead of *solutions*, and without deeper meaning or context. These photo-stories tended to be less engaging in exhibition contexts, and potentially less effective at encouraging environmental engagement (Chapter 5).

In response I expanded upon the ideation content in workshop 1 in subsequent rounds, encouraging participants to explore deeper meanings, such what *surface* and *depth* ways of looking at the environmental action (Figure 66), as well as their own *personal relationships* to it. I also split these ideation processes to include the environmental idea-generation first, then its visualisation separately, introducing dedicated photo-ideas sheets (Appendix C4) as supportive prompts for the latter (Table 16). Photo-elicitation was a core part of ideation processes, and is discussed in section 4.4.2. A full list of workshop adaptation can be found in Appendix C8, with (Table 16) summarising these developments.

The two slides from Workshop 1 below shows an example of the ideation development across different site-cycles.

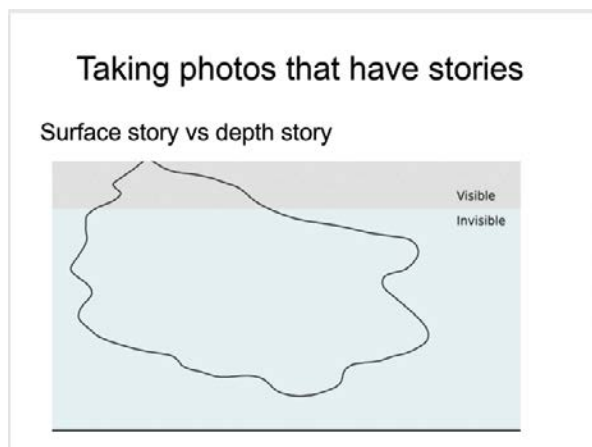


Figure 66 - Ideation workshop slide (site-cycle 4)



Figure 67 - Ideation workshop slide (site-cycle 7)

Table 16 - Workshop Ideation and elicitation adaptations

Adaptation area	Trial Round (site-cycle 4)	Round A (site-cycle 6)	Round B (site-cycle 7)	Round C (site-cycle 10,11)
<b>Ideation</b>	Single ideation activity (environmental concepts), peer discussion	Double ideation activity (environmental concepts, then visualisations)	Dedicated ideation prompts: making the invisible visible, environmental action selfie, your change-maker identity (ZUMC)	Double ideation activity (environmental concepts, then visualisations), dedicated ideation prompts: making the invisible visible, environmental action selfie)
<b>Photo-elicitation / Cross site engagement</b>	Web sourced /previous project photographs as presentation examples	BD – Previous workshop round photo-stories as presentation examples, empathetic engagement difficult with primary age Subsequent BD photo-stories used in ZUMC workshop, ZUMC photo-stories used in FoN workshop	Dedicated response form photo-elicitation of previous round photo-stories as part of ideation: FEEL, THINK, ACT, Quantified FEEL (GEW) BD – older youth selected, better empathetic engagement, invited their specific questions or messages to send to other sites	Dedicated response form photo-elicitation of previous round photo-stories as part of ideation: FEEL, THINK, ACT, Quantified FEEL (GEW) AU – specific letters to BD written, photo-story introduced with exchange context BD – specific letter responses to AU letters, photo-story responses
<b>Photography</b>	BD Primary photography during workshop community walk through	BD Primary photography during workshop community walk through  BD & CN tertiary Facebook/Wechat group discussion, submit online	BD Secondary photography during workshop community walk through  CN tertiary photography during walkthrough & participants own time, Facebook/Wechat group discussion, submit online	AU Primary used school pads, Secondary on phones BD Primary & Secondary photography during workshop community walk through, cameras given to students over Eid break for cultural photo-stories, action projects self-documentation (still/video)

In putting more emphasis on the ideation processes, more complex photo-stories tended to emerge, involving emotional expression, broader ethical or philosophical contexts, personal stories and more varied narrative voice. Also, through introducing the *environmental action selfie* in site-cycle 7, I encouraged participants to physically include themselves in their photography, in the role of an active change agent, which was motivational for the students and produced photo-stories that tended to be more effective in engagement.

#### 4.4.1.2 Participant photography

Having completed the ideation stage, participants created photographs based on their ideas (Figure 68). For a large cohort – primary and secondary age Dhaka participants – I conducted this in their local neighbourhood *during* Workshop 1, based on partner organisations’ advice regarding potential security issues in leaving the camera-phones with the school or participants. I collected photographs at the end of class. The older tertiary participants, being more independent and mostly having camera-phones themselves, photographed *between* workshops, sharing on an internal class Facebook group that allowed for photo-story discussion and feedback (Appendix C9). I ran a similar process in China with tertiary participants, using WeChat and QQ as sharing platforms as Facebook was blocked by the Chinese government.<sup>59</sup>

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<sup>59</sup> It was disappointing that Facebook was blocked in China as it would have provided an easy platform for participants to connect and share photo-stories across Australia, Bangladesh, and China, given its popularity across the other two countries.



Figure 68 - Secondary level participant photography in Dhaka (Jaago Rayer Bazar)

#### 4.4.1.2.1 Participant-photography adaptations

Initially I approached participant photography with the assumption and preference for it being conducted individually. However I was forced to broaden this view as many participants preferred to work together, or closely with the local mentors. These preferences articulated the importance of collective, relational acts of photo-story creation over my assumptions. From a relational perspective, the importance of the act of photographing is not necessarily the *what* of image capturing itself – of specific ‘visual data’, or the recording of an individual’s ‘authentic’ expression – but rather *how* it figures in the emerging material relations of photographer, subject and the embodied field in which they are co-constituted (Allen 2011). This contains two implications: firstly, that

photovoice creation processes may benefit from allowing multiple authorship, to allow more of this human-to-human relational field to be expressed; and secondly, that workshop processes should be responsive to the phenomenological and spatial context of the workshop itself – to allow these broader relations the physical space to express themselves, and the participants to engage with them. The latter is a reminder that these immediate material relations are always much more than what can be captured by the camera’s frame; thinking relationally invites a broadening from the photographic act of image capture framing the world in representational visual-thinking, to it being instead seen as an ‘unthought’, which is an ‘*experience* of this world’ (Dewsbury 2016),

in embodied and spatially-nuanced ways. Photography in this sense is a ‘multi-sensory lived experience’, which can be thought of as a process of reflexive self-engagement with the world (Pyyry 2015).

My initial assumptions of the workshop purposes were primary to collect data in the form of photo-stories – however thinking of the relational perspective in terms of the ANT concept of *inscription devices* helped me see the limitations of this view.<sup>60</sup> As *inscription devices* they can be seen as extracting the photo-stories while obscuring the embodied, material interactions that generate them – which invites a careful consideration of these material processes themselves. For instance, the Bangladeshi primary and secondary participants photographed during a neighbourhood walkthrough as part of workshop 1, which, although this process presented more logistical challenges, provided participants with crucial spaces for reflexive embodied spatial engagement. These spaces were their local neighbourhood and as such their photography was grounded in their own local, intimate knowledge and relationships (Figure 70).

In contrast, the tertiary participants had greater flexibility to photograph between the workshops in their own space, time and themes – one factor resulting in a wider thematic and geographic breadth (Figure 69). The trade-off was that their broader, more autonomous processes lacked the younger participants’ collective embodied experience of a specific place.



We use tissue in a daily basis. However, producing a box of tissue causes damage to the environment. First, it is made from wood fibre, which leads to cutting down of trees. Second, it is produced in industries, where power is used to run those massive machines and emits pollutants. Reducing tissue usage can help the environment. A handkerchief can make a big difference.

Figure 69 - Dhaka tertiary photo-story (IUB)

<sup>60</sup> Latour (1986) defines *inscription* as ‘a system for producing traces out of materials that take other forms... that can transform material substance into a figure or diagram which is directly usable by others’ (20). In a scientific example Law (2004) describes how laboratory processes of labelling, extracting, recording act as inscribing devices transforming the initial laboratory rat into scientific discourse (such as figures and diagrams), obscuring the material activity.



*Garbage should be dumped in the proper place and should not be scattered here and there.*

*Figure 70- Dhaka primary photo-story (Jaago Korail)*

Kesby (2007) explores the spatialised dimensions of participatory practices, noting that the effects can travel beyond the site of generation:

*We need to identify which resources have been successfully redeployed, normalised, and distanced beyond the participatory arena, enabling agents to repeatedly mobilise them to enact their empowerment elsewhere. We must identify how wider geographical settings have been reworked to make them conducive to the stable reperformance of empowered forms of agency. (2825)*

The materialities of participation can be thought of as one of these ‘resources’ that can assist with this ‘mobilisation’ (Askins and Pain 2011). The photographs are created from their own unique material and spatial contexts as described above; when transformed into photo-stories through the workshop methods, they are enmeshed in intimate material practices of their own. These include being physically handled, held, and passed along between and amongst participants – forming specific human-material interactions which have an embodied depth and presence that exclusively screen-based engagements lack. Thus these multi-sited photovoice processes may constitute a kind ‘reperformance’ that can mobilise ‘elsewhere’ through the participatory audience engagements far from their actual site of production.



Figure 71 - Photo-story development workshop

#### 4.4.1.3 Workshop 2 - Photo-story development

In the second workshops, I returned the printed photographs selected by the participants back to the students, who then made further selections from them through discussing their favourites in individual and group exercises. They subsequently wrote accompanying photo-captions through additional writing exercises to express the ideas and motivations behind their images and to create the completed photo-stories (Figure 71 and Appendix C6).

#### 4.4.1.3.1 *Photo-story development adaptations*

The second workshop confirmed the importance of participant discussion to multi-sited photovoice, enabling participants to develop and test out their ideas through discussing and representing them to their peers and volunteers. It was also important to use effective group facilitation to ensure that participants received equal opportunities to share. Observing the workshops confirmed that they were microcosms of larger cultural dynamics – for example primary/secondary participants in Bangladesh worked in gender-segregated groups, with males tending to dominate the cameras, requiring volunteer facilitation to encourage equal sharing.

However, this facilitation could also be the source of issues – for instance the common tendency for volunteers to overly ‘guide’ and hence influence participants in their ideation and/or selection processes – which required further briefing to mitigate. Although it was difficult or impossible to discern the influence of such ‘guiding’ on the photo-stories themselves due to so many other variables effecting their creation (such as photographers’ intent, volunteers’ intent, photo-story content and so forth), this issue goes to the core of photovoice practice regarding participant voice (Delgado 2015). As such I treated it seriously, providing group and individual volunteer briefings in later workshop rounds emphasising the importance of participant voice.

Supporting participants to develop text for their photographs was the key outcome of this second workshop, and its subsequent methodological adaptations. Initially I faced similar issues here as with ideation; many participants simply *described* photographs rather than *expressing* their ideas behind them. By introducing more emphasis on the concept of ‘surface vs depth’ regarding narrative and text development I allowed participants to express their ideas more fully through their text. Specifically this included giving longer time for individual reflection and group discussion around the ‘depth’ ideation illustrated in workshop slides such as (Figure 66, Figure 67).

Once developed, the above basic workshop pair formed the core structure of the photovoice program across the three countries and over the full action-research period 2016-19, specifically during site-cycles 2,4,6,7,10. However I continually adapted these core workshops as I experimented with different methods for visualising and influencing environmental behaviour change in the multi-sited context. I next outlined two major adaptations at the workshop level – *multi-sited photo-elicitation*, and *multi-sited photo-dialogue*.

### 4.4.2 *Multi-sited photo-elicitation*

I introduced this photo-elicitation method to the existing photovoice workshops to bring multi-sited dimensions to the basic single-sited photo-elicitation format. I used this single-sited version at the trial and first round workshops (site-cycles 4,6,7), and had framed it solely within the context of the participants' own photo-story idea development. During photo-elicitation my role as *curator* became more prominent, for instance in selecting images used for workshop presentation examples or handouts, that subsequently influenced participants. I first sourced photo-elicitation examples from the web – such as mainstream environmental engagement images such as tree planting, bicycle riding and so forth. Subsequently as participants began to create photo-stories themselves I drew these examples from the growing site-specific photo-story collection (Appendix D), based on emergent and site responsive themes (Figure 72). This allowed for participatory cross-site visual engagement where participants could choose from a selection of photo-stories from any site and respond by relating them back to their own thoughts, emotions, and actions.



Figure 72 – Example of a multi-sited photo-elicitation process

The elicitation process in (Figure 72) invited participants to first respond to photo-stories from other sites as an entry point into considering visual communication, starting from the first round of China workshops in Hangzhou, and progressing through other sites. I developed two methods – open and structured photo-elicitation, outlined below. As this inquiry is methodologically-focussed, and as the elicitation produced large datasets, I discuss just a small selection in the sections below to provide insights into the development of these multi-sited elicitation processes.

#### 4.4.2.1 Unstructured photo-elicitation

This was the first elicitation method, which I developed to allow participants to respond freely to their chosen photo-story, without specific prompting. I ran workshops with five undergraduate English classes, with approximately 20-40 students each, at Zhejiang University of Media & Communications (ZUMC) during site-cycle 6 in Hangzhou, China. I used photo-elicitation in the first section of the class, prior to students ideating freely as a prelude to creating their photo-stories. As such it served as an entry point into both exploring *global empathy* and *visual literacy*. I collected these photo-story reflections (n=147) from students across the 5 classes, of which one class (n=34) was selected for analysis.<sup>61</sup>

I conducted the unstructured photo-elicitation method by inviting the participants to:

1. *Choose a favourite photo-story from previous rounds (a set of approximately 6-10, postcard format, with approximately ¾ coming from Dhaka, and ¼ from China)*
2. *Discuss in pairs and write about their choice*
3. *Observe a brief presentation on visual literacy, including 'surface vs depth' meanings in photo-stories*
4. *Discuss in pairs and extend their previous writing, highlighting further personal observations and reflections about their chosen photo-story*

##### 4.4.2.1.1 Results and analysis

I open-coded and analysed the written responses by theme and tense (full results see Appendix D4), which yielded several observations on photo-story site preference, themes, written tenses, and relationship to environmental behaviour change, summarised below.

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<sup>61</sup> This selection was based on interpretability (the class had the highest number of English responses with no translators available), and time constraints to analyse the full data set.

***Slight preference towards China photo-stories*** – though China photo-stories represented only 19% of the photo-stories available, they were chosen 24% of the time. While this could simply be chance, it could also indicate a slightly steeper barrier to emphasising across greater cultural difference, as suggested by Krznaric (2015).

***Themes were generally distributed evenly*** – participants' selected photographs were mostly spread across the photo-story themes, with the exception of waste which had double the responses. Interestingly although they were prompted, few participants reported aesthetics as the basis for selecting their favourite photo-stories (12%), with a similar number describing the photo *theme* as why they selected their photo-story.

***Personal involvement reflected in written tense*** – ~70% of responses used the first person, compared with < 25% using 3<sup>rd</sup> person, suggesting students found it relatively straightforward to engage personally in the photo-stories, an important requirement for engaging with empathy. 'We' was used significantly more than 'I' (41% to 26%), which may reflect the collectivist orientation of the China site or sense of collective responsibility (Hofstede 2001).

***Emphasis on personal and collective behaviour change*** – the most dominant theme was 'responsibility' (29%), followed by 'behaviour change' (18%). In contrast, there was only one response that explicitly indicated an infrastructure solution ('we should build professional dustbin'). This is consistent with other findings regarding youth emphasising behavioural over infrastructure solutions in the context of environmental behaviour (Chew 2013).

Other recurring themes included:

- *'from little things big things grow'*
- *'nostalgia'*
- *'our reliance on nature'*
- *'fun/inspiration/joy from nature'*

These responses may appear clichéd to a Western viewer due to their repeated exposure as well as prevalence in 'greenwashing'. However, it is important to acknowledge that in the multi-sited context, environmental perception varies greatly between and amongst sites. For example, in the Chinese context there can be different public cultural environmental narratives than in Western media (Zu 2015). A summary of the most popular photo-stories, themes and selection frequency % are shown at the end of this section in (Table 17), with examples below.

#### 4.4.2.1.2 Selected Photo-elicitation examples:

The examples below show two photo-stories selected by participants, followed by the their written elicitation responses.

##### Participant #30

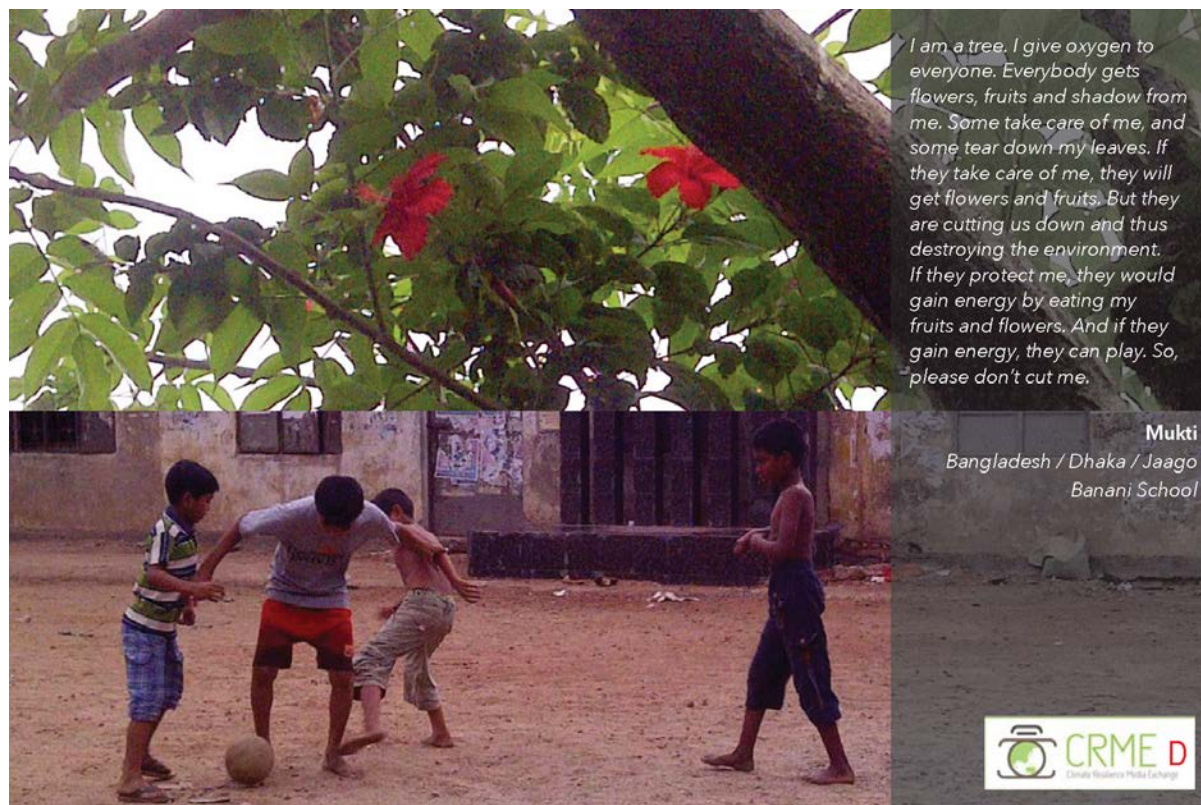


Figure 73 - Selected photostory 1 (Dhaka Jaago Korail)<sup>62</sup>

*"If trees have emotion, if tree can talk, would we cut it so lightly? First if we are trees, give fruits and flowers to humans, but would be cut in the end, what we will feel, angry or sad, so we should respect more about trees."*

The photo-story here uses a first-person narrative from the tree's subject position which invites the reader-viewer to empathetically feel into its (distressed) position. This is reinforced compositionally by the two contrasting images that juxtaposes carefree boys below with the steady, silent tree shade above. This student in response indicates a very direct understanding of the cognitive empathy of experiencing a tree's suffering, connecting it with an ethic of environmental stewardship.

<sup>62</sup> I have presented the photo-story here in the exact postcard format that were used in the workshops. The CRME refers to 'Climate Resilience Media Exchange' which was the working title for the research project until I changed it to 'Portraits of Change' in mid 2017. The red letter was a unique index used to identify postcards for analysis.

### Participant #8

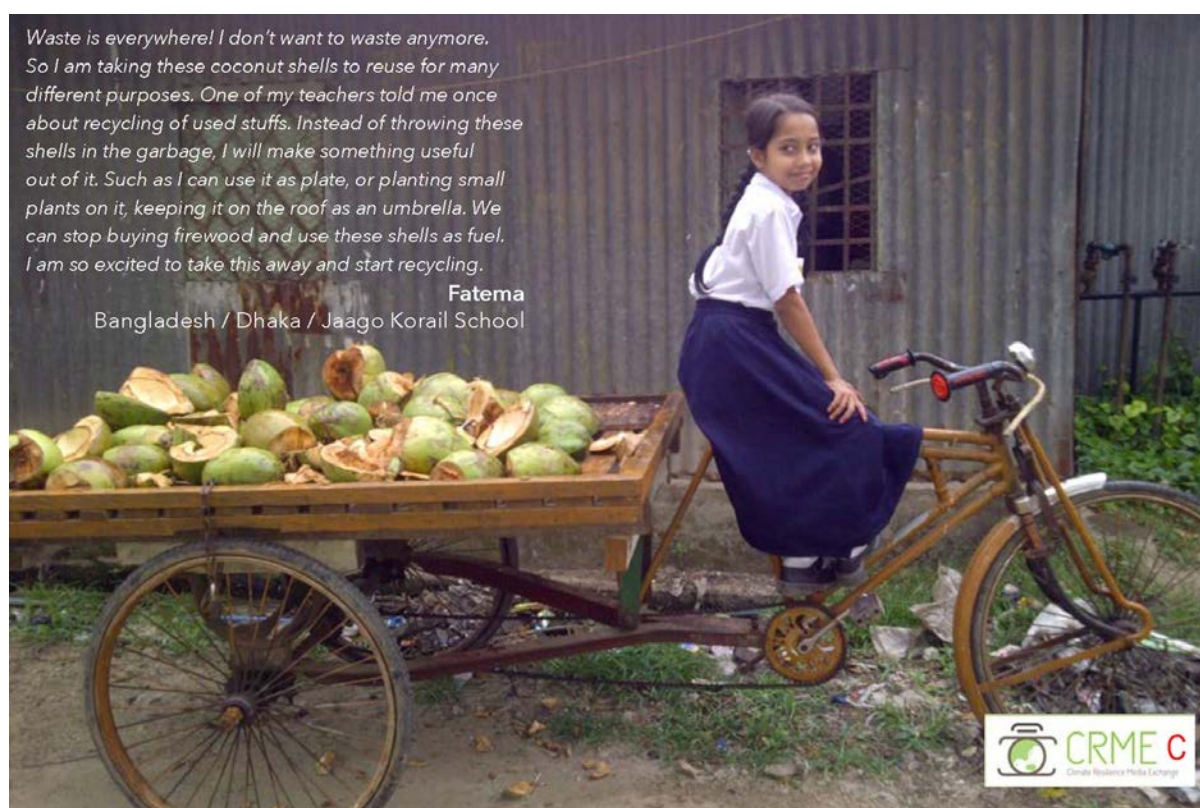


Figure 74 - Selected photostory 2 (Dhaka Jaago Korail)

*"It has touched me deeply to see the picture given me some inspiration. What can I do for the environment? I take off a lot of garbage everyday and never think it can be used again..."*

The photo-story here shows a strong first-person narrative, which helps to open up engagement and possibility over environmental behaviours. The responding student shows the power of the photo-story to cognitively and emotionally promote new and deeper reflection on her own behaviour and responsibility, promoting critical consciousness (Freire 1970).

#### 4.4.2.1.3 Discussion

While there were limitations on broader generalisability due to the small sample size, limited demographics and single site, I found key learnings. Generally, participants found the photo-stories very engaging, which served to inspire a sense of personal and collective responsibility. The process engaged with both their *conversational* and *global* empathy (Krzmaric 2015), the former through the group discussions, and the latter given the multi-sited visual content. The student's extended responses provided crucial depth and nuances which complement and fill out the 'birds eye' quantitative observations, allowing spaces for the empathy to be expressed. These empathetic understandings (arriving primarily through the photo-story *visualisation*), together with personal

and collective environmental responsibility, form contributing factors to positive environmental behaviour (Chapter 2), and hence demonstrate how an *adapted* multi-sited photovoice can *influence* the latter.

However, eliciting these responses in such an unstructured, generalised way can make it difficult to discern the influences of cognitive and affective components to the respondent, or their relationship with taking action – which invited further workshop adaptation.

*Table 17 - Most popular selected unstructured elicitation photo-stories (Hangzhou)*

Photo-story	Theme	Location	Frequency %
	<i>plants</i>	Dhaka	15%
	<i>water</i>	Dhaka	15%
	<i>waste</i>	Dhaka	12%
	<i>waste</i>	Dhaka	12%
	<i>connection</i>	Beijing	12%
	<i>waste</i>	Dhaka	9%
	<i>reuse</i>	Hangzhou	9%
	<i>transport</i>	Dhaka	6%

#### 4.4.2.2 Structured photo-elicitation - *Think, Feel, Act*

To address these specific limitations, I further adapted the photo-elicitation process by structuring the responses to include *cognitive*, *affective* and *action* dimensions. One such framework for this is the previously discussed *Head, Heart, and Hands* model of transformative learning in sustainability education, in which knowledge is seen as intrinsically connected to behaviour (Sipos, Battisti, & Grimm 2008). Adapting this in the context of photo-elicitation, I developed separate questions under the terms *Think, Feel, Act* (Figure 75).



Figure 75 - Think, Feel and Act framework (workshop slide)

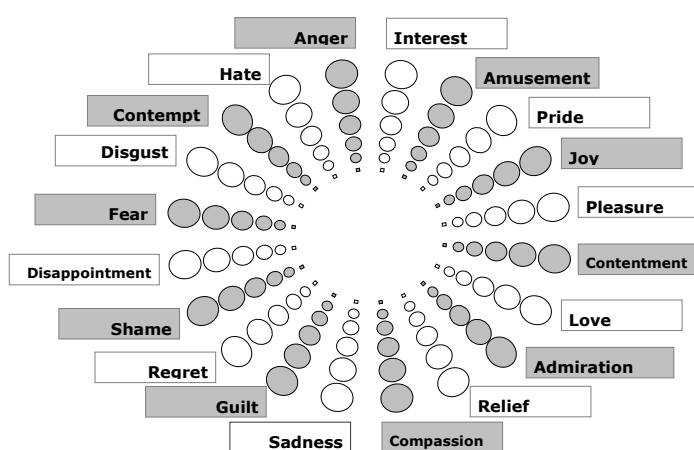


Figure 76 - Geneva Emotion Wheel

As these measures were to be used across different cultures, I replaced *Plutchik's Emotion Wheel* used in the second Melbourne photo-story exhibition – discussed in Chapter 6 – with the *Geneva Emotion Wheel*, as the latter had been specifically adapted and used for cross-cultural use (Scherer 2013), while adding an intensity measure for the emotions for a finer-grained reading (Figure 75). I used qualitative content analysis to explore results from using this process in workshops organised through three partner organisations in Dhaka during site-cycle 7 – North South University, Independent University Bangladesh, and Jaago Rayer Bazar (Figure 77).



Figure 77 - Structured photo elicitation examples (Jaago Rayer Bazar)

For this photo-elicitation, participants selected their favourite photo-story from an updated selection of 18 photo-stories representing all three sites (6 from each). Each postcard had a unique letter code that participants recorded on their response sheet. These were tallied up to yield each workshop results which were combined and weighted for overall popularity across the three workshops. The same was done for emotional responses, shown in (Figure 78), in descending order of total frequency nominated by participants. Just like the second Melbourne photo-story exhibition, positive emotions were more common – *Interest, Joy, Pride, Admiration, Love* being the top. *Guilt, Disappointment, Shame* topped the negative emotions. There is little discernible pattern regarding age, except that younger primary-age *Jaago* group choose consistently more *Joy* and *Hate* than the tertiary co-participants – suggesting that younger audiences may more readily experience or express these basic emotions. This has implications for the photo-elicitation methods used with the different groups – for instance younger participants may benefit from having a wider range of photo-stories to provide them with a broader emotional palate.

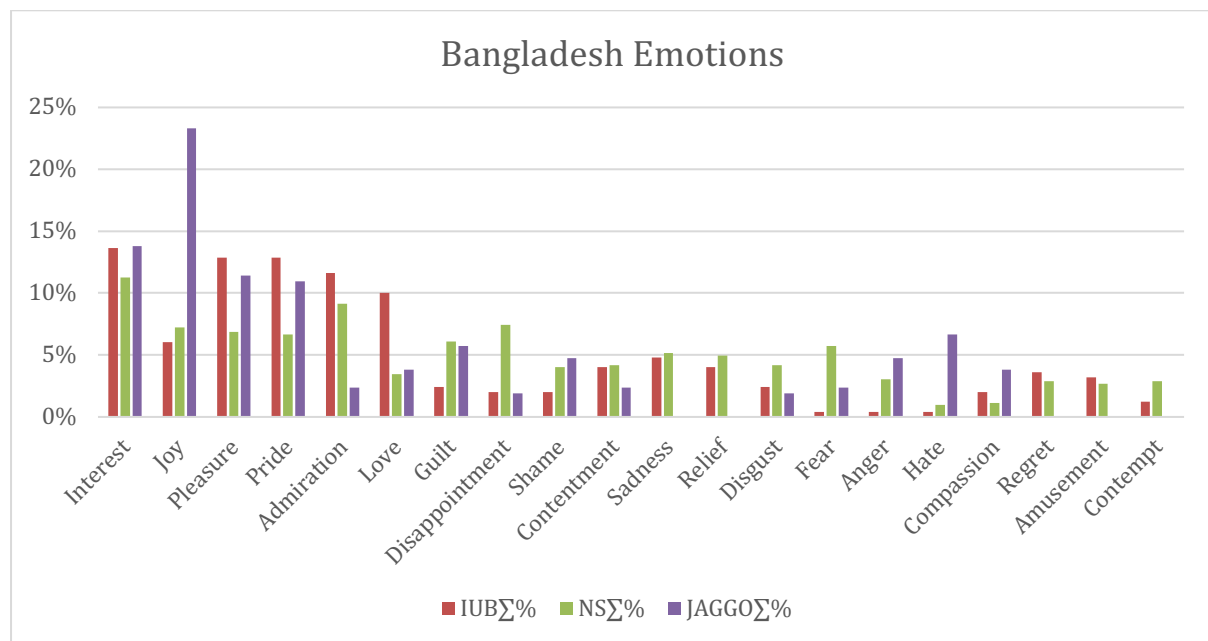


Figure 78 - Photo-elicitation emotion frequency (Bangladesh)

The most chosen postcard was from a media student at ZUMC in Hangzhou (Figure 79), featuring a close-up of a plastic bag with text referencing feelings of loneliness for the bag which is lost and looking for a rubbish bin home. These emotions are highlighted by the image's soft focus and shallow depth of field. The consistent popularity of this story suggests that both imaginative storytelling, and the image aesthetics that support this, are a powerful combination and may have greater ability to cross cultural divides than everyday naturalistic images.



*Figure 79 - ZUMC, Hangzhou photo-story 1 (most popular photo-story)*

Considering the photo selection overall, Bangladesh and China photo-stories were similarly popular (40% to 37%), compared to Australian ones (23%). This may be due to the Australian photo-stories being more about everyday images and having less of an imaginative/creative storytelling dimension compared to the others, as the Australian participants in the first round (whose photo-stories featured in the photo-elicitation postcards) did not go through the creative workshop process like other sites – instead they just submitted photo-stories directly to me.

It was promising to see some tentative confirmation of the impact of creative storytelling in photo-stories, validating the time spent on ideation and photo-elicitation in the workshops. These two processes evolved and worked together through site-cycles 4,6,7 to give sound creative foundations to photo-story generation in multi-sited photovoice. Both the unstructured and structured photo-elicitation provided reflective spaces for participants across the sites to engage with each other's concepts of environmental behaviour through reflecting on each other's own photo-stories; this multi-sited photo-elicitation being a key contribution to photovoice methodology.

However, through facilitating this process I was still the intermediary between the participants – could there be another kind of multi-sited photovoice engagement where the participants could engage with each other more directly? This led me to develop photo-pen-pals workshops which I discuss next.

### 4.4.3 Peer-to-peer elicitation: photo-pen-pals

Despite these methodological developments, the time constraints of multi-sited engagement had limited the depth of participation. Furthermore, the engagement had been one way – and always mediated through the photo-story itself, in either workshop, exhibition or interview form (Chapter 6). I responded to these constraints through designing a longer-term peer education program with deeper participation and opportunities for *two way* exchange between sites. This had two stages – firstly a ‘photo-pen-pal’ stage (site-cycle 10-11), followed by an action project development stage (site-cycle 15). The first stage is discussed below, the second in Chapter 6.

#### 4.4.3.1 Photo-pen-pals

While pen-pal projects have been long established in schools to foster improved literary, communication, and learning skills amongst participants (Rankin 1992; McCaffery 2012), they have almost exclusively focused on cultural exchange rather than environmental engagement, with the exception of Wiener’s (2014) *‘Ecosystem Pen-Pals’* project that connected US students with those in Pacific Islands over marine conservation. In this project, students participated in letter exchanges, video conferencing, field guide development, and gathering physical conservation objects over the course of one year.

As my own project’s timescale was far shorter, I selected letter writing from the above activities and developed a six session workshop series from previous photovoice workshops (Appendix C8). This included a letter writing exchange between a primary and secondary school in Melbourne (Mt Waverley Secondary College, St Louis Primary School) and in Dhaka (Jaago Foundation Korail and Rayer Bazaar), illustrated in (Figure 80).



Figure 80 - Slide from project presentation outlining photo-pen-pals activities

#### 4.4.3.1.1 *Pen-pals process*

I first ran photovoice workshops with the Melbourne schools, adapting the curriculum to include a letter writing activity after students made their photo-stories. The students wrote generic letters to Bangladeshi students including their background and relationship to the environment (Figure 87). A month later I ran workshops with the two Bangladeshi schools in Dhaka, assisted by local and international volunteers. The Bangladeshi students selected from the Australian students' photo-stories and letters, writing reply letters of their own. Due to logistical issues, not every Bangladeshi student was able to find a letter to match with, so some wrote generic reply letters.



Figure 81 - Mt Waverley Workshop and photo-story

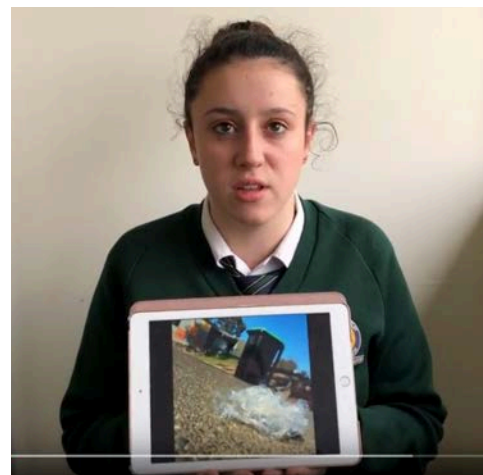


Figure 82 - St Louis Workshop and photo-story



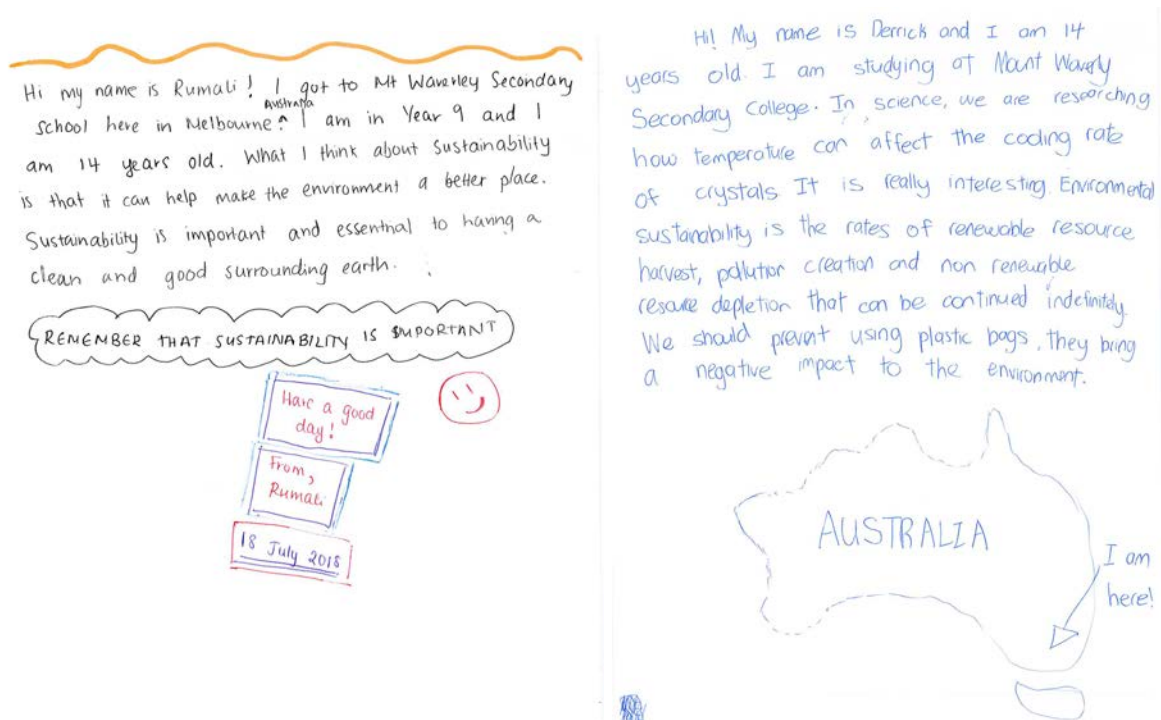


Figure 83 - Example Photo-story letters from Mt Waverley students

#### 4.4.3.1.2 Results and discussion

I used descriptive coding to explore themes emerging from the letters (Saldaña 2015). In the Australian set this involved initially identifying 54 different codes, which were then consolidated down to 14 broader themes (Figure 84). Student interests (predominantly sport, singing, classes) were the most common. Environmental thinking was the biggest theme, of which ‘*environment is our only home*’ was almost half, alongside ‘*thinking long term*’, statements more consistent with a ‘deep green’ thinking than instrumental environmentalism.

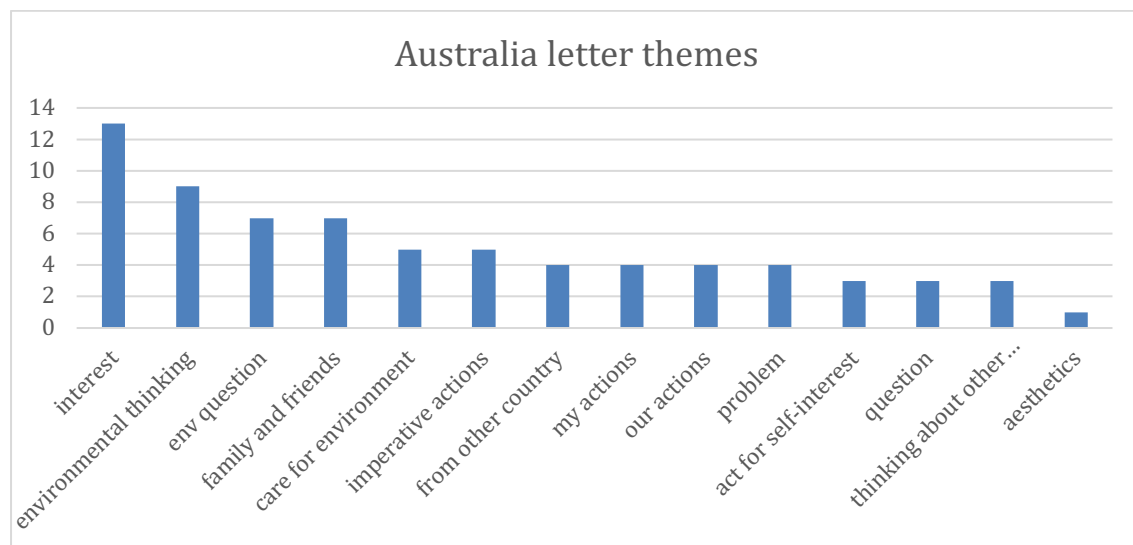


Figure 84 - Australian letter themes

In the Bangladeshi letter responses, I identified 30 codes, and distilled them down to 11 different themes (Figure 85). Family and individual interests dominated the letters, with family being more dominant than in the Australian group, perhaps reflecting collectivist vs. individual cultural differences (Hofstede 2001).<sup>63</sup> With one exception, the Bangladeshi students generally did not reference the Australian students' individual details in their letters, suggesting the importance of identity expression and underscoring that such exchanges may need a longer time for participants to build up knowledge of each other across language and cultural differences (Wiener and Matsumoto 2014; Barksdale, Watson, and Park 2007).

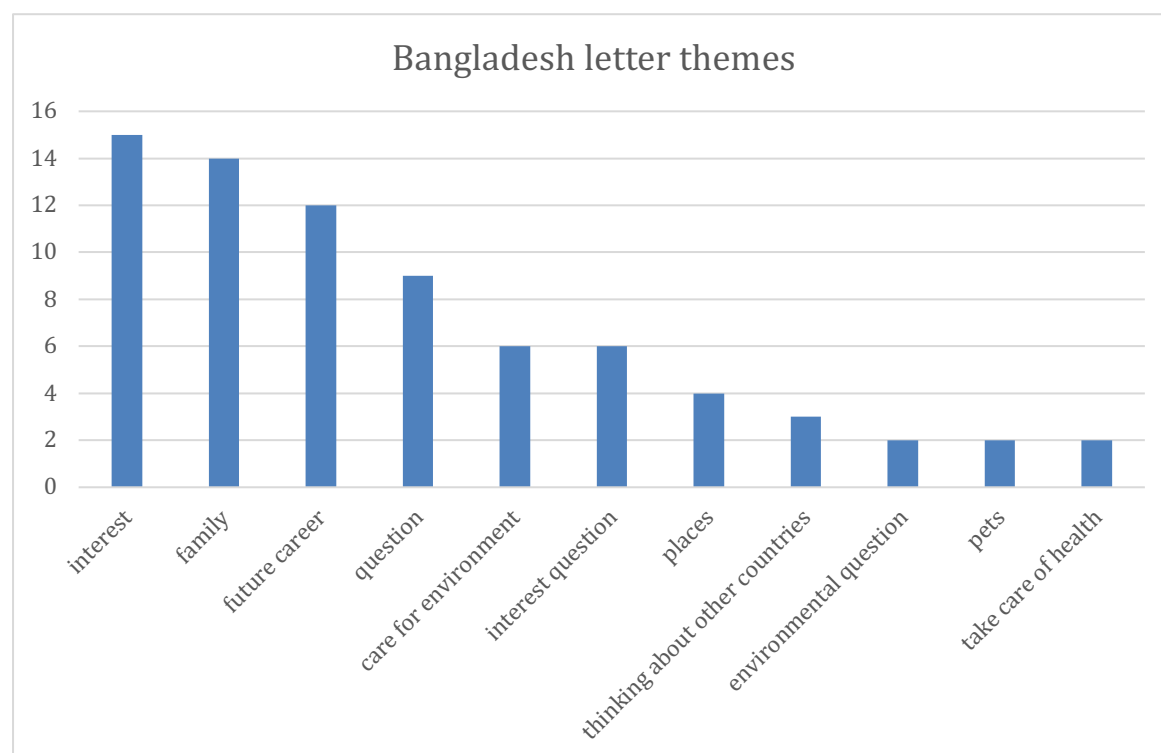


Figure 85 - Bangladesh letter themes

In contrast to this was the Bangladeshi students' notable excitement on receiving the Australian letters and photos-stories, which provided them with additional motivation to participate in the subsequent photovoice activities compared with previous cycle workshops. Out of the wide range of themes in the letter and photo-stories two are of relevance from a multi-sited perspective, *environmental health* and *political context*.

<sup>63</sup> The Bangladeshi letters were more general than the Australian ones, with the Bangladeshi students asking a much higher proportion of general to environmental specific questions, many of which were regarding the Australian student's interests. This was probably because the Bangladeshis were responding to actual students and presumably wanted to know more about them, while the Australian students were writing more generically.

#### 4.4.3.1.2.1 Environmental health

Environmental health can highlight key differences in environmental behaviours across the different sites. In one photo-story (Figure 86), the participant advocates for spices to be sold in sealed plastic packets due to airborne pollutants, a stance directly contradicting most of the Australian student's photo-stories which advocate for less plastic. The picture of the spice on the road shows directly its exposure to airborne pollutants, communicating the environmental health perspective more effectively than simply words. It also highlights the environmental justice perspective; the Bangladeshi students reside not only in a country with less adaptive capacity to environmental risks, but also in a poorer area ('slum'<sup>64</sup>) where health risks, like the litter in the streets, are more directly visible than with their Melbourne counterparts. Similarly, two of the Bangladeshi letters explicitly well wish the Australian students good health, while this language is absent in the Australian letters.



Figure 86- Bangladesh spices photo-story (Rayer Bazar)

<sup>64</sup> I use the term 'slum' as shorthand to describe a dense economically disadvantaged neighbourhood. I recognised that the term can be problematic in universalising such settlements (Mayne 2017), and should be used with caution.

#### 4.4.3.1.2.2 Political context

Similarly the political context of the exchange also highlighted key multi-sited differences. In one letter (Figure 87), the Bangladeshi participant encloses a drawing illustrating collective struggle and asks the Australian student what this means for her country – stating that it represents Bangladesh’s present situation while wondering about the future. During this workshop period (site-cycle 11), there was tertiary student agitation and civil unrest in Dhaka demanding road safety regulation following student traffic deaths, with some of the mentors reporting police harassment en-route to the workshops. While the Australian students may find this political context difficult to imagine, let alone visualise, the use of drawing was able to bring it viscerally to the fore.

No Australian secondary student wrote or used their photo-stories to speak about the political context, with political content only being expressed by the older participants, and even that rarely. The Australian student that was being addressed in the letter was actually of Chinese background and had come from China one year prior to the letter.<sup>65</sup> In China I was told by staff in multiple partner organisations that people may be hesitant about making photo-stories that could be perceived as criticising the government. These small yet significant anecdotes affirm that the political can be everywhere, and it may be the case that what is not shown in the photo-stories is just as important as what is, as discussed in (Mitchell 2011).<sup>66</sup>

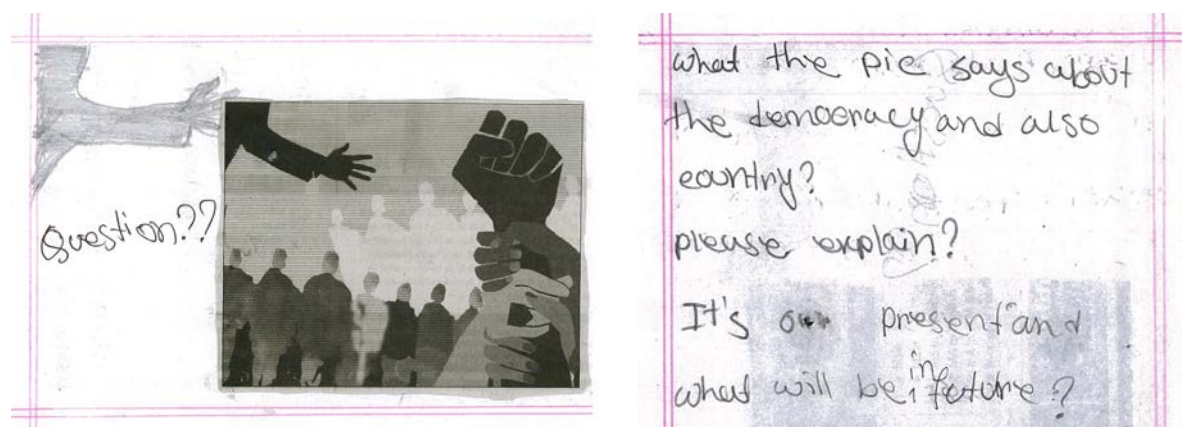


Figure 87 - Bangladesh penpal letter

With both above examples it is actually the contrast *between* the sites that this photovoice exchange reveals for environmental behaviour change which is the illuminating factor – which is not found in conventional single-sited versions. While it is outside the scope of this inquiry to

<sup>65</sup> While ethnic make up of participants at the Bangladesh and China sites were almost all matched with their site – in Melbourne there was a wide ethnic variance – for example ~90% of the *Monash Design for Social Impact* class were actually Chinese international students. It is thus crucially important to be alert to the risk of essentialising ethnicity in multi-sited inquiries - and to acknowledge multiplicity of subject positions.

<sup>66</sup> This is another example where participatory visual analysis would add deeper perspectives to multi-site photovoice by giving space for participants to identify and engage with what is locally missing.

attempt to empirically measure this difference, considering such differences as they emerge as resulting from methodological inventiveness can provide us with important reflections on the nature of these adaptations.

#### 4.4.3.2 Initial multi-sited photovoice reflections

The adaptations discussed above all contribute to the development of what I call an *open photovoice* method, where the participatory methods such ideation, creation, elicitation and exhibition that are usually present in conventional photovoice at a single site, are instead opened up in breadth across multiple sites. I briefly outline characteristics of this method below.

### 4.4.4 Characteristics of open photovoice

#### 4.4.4.1 The persistence of materiality

As image-making and sharing can be easily done online, multi-sited photovoice practices emphasis on doing this through slower, more challenging embodied engagement can seem archaic and unnecessary. However, this material engagement is an essential enabling part of photo-story creation, through spatialised and embodied participant engagement.

Imaging technology and access varied greatly across the various participants yet all were grounded in material presence through the workshops. For instance, I physically carried the donated camera-phones from Melbourne to Dhaka on two occasions, where they were essential to the primary and secondary students taking photographs as they had no other means. At the same time the tertiary students less than 2km away could take, create and discuss their photos via their own camera-phones and social media, while the partner organisations in China found these seven-year-old phones amusingly antiquated – their youth participants shot with the latest handsets and shared them online through *Wechat*. Thus, it is important in a multi-sited approach to be cognisant, and account for such ‘digital divides’ between and amongst different communities, with the technology having to be responsive to the participants’ needs.

However, although technology is necessary in image-making, it is far from sufficient. Rather it is actually the embodied, locally grounded, relational engagement with participants in and around the workshops that made all the difference – face-to-face ideation and dialogue, brainstorming and discussion, photo-stories held, handed around, and physically poured over. While the images themselves can indeed travel further and faster online, they rely on all these material and relational processes for their production.

#### 4.4.4.2 Relationality and involvement

Any of the discrete PAR cycles can be teased apart to reveal a dense relational network of various actors – whether this was primary-age participants navigating their way through their neighbourhoods whilst photographing, or in the subtle learnings and influences coming through volunteer, mentor, and partner organisation co-designing.

These kinds of relations are symptomatic of the broader importance of relationships to participation in community-based engagement. Sustained engagement with communities can only come effectively through local partners with their deep community connections – the project involved working through 19 local partner organisations of varying size and structure across 3 countries. Without their communities' connections, generosity of time, local expertise and trust in the project, these engagements would have been impossible.

This invites the ongoing question of how to adequately reciprocate these efforts. Providing the photo-stories and secondary visual materials (such as posters and video documentation), as well as connections and training, proved to be appreciated. However, greater time engagement would be more ideal with partner organisations to better integrate the program into their existing activities.

Another perspective on relationality emerges from constraints. As with most community projects, there was a lack of capacity in time and resources throughout the program. Unpaid internships and crowdfunding became entry points for interested people to contribute to the project. Connections made through these processes enabled meaningful engagement and dissemination with the photo-stories themselves.

## 4.5 Summary

In this results section I have explored the ‘adapt’ research orientation through the question of *‘How might we adapt photovoice across multiple-sites?’*. Through mapping out the PAR cycles I responded to the question on three spatial levels: program, site and partner. On the program level the design figurations such as mesh/networks and programs/experiments allows us to see how methodological adaptation is translated across various scales and cycles. By synthesising the cycles I derived a scalable and replicable *minimum viable process* for multi-sited photovoice. Critical reflection at site-level demonstrated the importance of appropriate site and partner selections methods, with the development of *emergent partnering models* as guidelines for site-responsive partnership development. Viewing participation relationally from the site perspective revealed an expanded concept of participation relevant more broadly to action-research, which opens up involvement possibilities. Finally partner-level design processes have demonstrated that participants should be supported to guide the development of their stories, and that despite the ubiquitousness of online engagement, embodied presence and processes are actually crucial for participant engagement.

Viewed collectively, this affirms the principle that developing and supporting relationships, and creating opportunities for others to become involved, is foundational for multi-sited engagement. In the next section I turn my analysis to the visual products of these processes – the photo-stories themselves.



Want to know a little bit more... The butterfly has a pair of bright light compound eye which is made up of more than fifteen thousand small eyes. They are a hexagonal wedge, above is large and the below is sharp, each side of the small eyes is closely attached together.

This butterfly compound eye is made out of film and straw, to experience the visual life of butterfly. (photographer, Beijing, China)

*"I like the idea of seeing the world through butterfly eyes, I can feel empathy and inspiration through the photo opening a different window to the world" (responder, Melbourne, Australia)*

## Chapter 5:

# Findings B - Photo-story analysis

## 5.1 Introduction

In this section I analyse selected photo-stories emerging from the adapted photovoice methods across Bangladesh, China and Australia. Through examining two distinct analytic approaches – *realist* and *relational-material*, I consider how they respond to sub-research question two – ***‘How might we use multi-sited photovoice to visualise local environmental behaviour?’***

The realist approaches provide a broad, taxonomic perspective on the emerging environmental themes across the photo-stories, with differing levels of analysis providing feedback mechanisms to the photovoice processes described in Chapter 4. The relational materialist approaches provides an alternative set of close-up lenses to explore a subset of photo-stories from a relational standpoint, inviting expanded considerations of agency and subjectivity in environmental behaviour.

## 5.2 Program-cycle

At the broad program-cycle level<sup>67</sup> the visualise orientation represented the high-level reflective processes through the action-research, phase-cycles A, E, I (Figure 88). As conceptualising and synthesis are covered in Chapters 1 and 7 respectively, for this part I focus specifically on the site-cycles in phase Cycle E – photo-analysis.

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<sup>67</sup> Note that I am using the temporal cycles as the analytic scale rather than spatial levels for this section as the visual analysis was time rather than space specific.

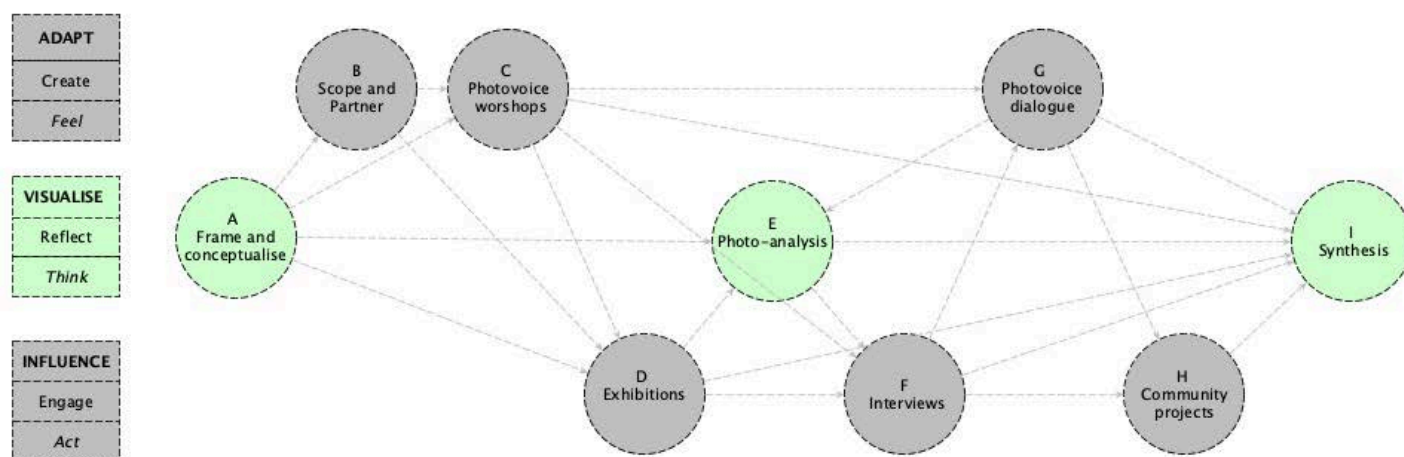


Figure 88 – Visualise site-cycles

## 5.3 Site-cycle: visual analysis

Photographs can be analysed using a wide range of different epistemological approaches (Rose 2016; Wall, et al. 2013; Jones and Jenkins 2008). These approaches include *realist* (photographs reflecting reality), *symbolic* (photographs as constructions of signs and codes that reflect reality), *constructionist-interpretivist* (photographs do not reflect reality but rather their reality is constructed through maker and viewer), *critical-emancipative* (photographs' reality is constitutive of its material-political context and means to transform this), *performative* (photographs' reality is constituted through its representation of 'congealed' performative discourses), *relational-material* (photographs' reality is materialised through the networked assemblages of relational entities), *participatory*<sup>68</sup> (photographs are analysed by their creators using participatory processes). However literature on the photovoice methodology provides little guidance on data analysis (Brunsden and Goatcher 2007; Latz 2017). Following the methodological review in Chapter 2, I draw upon the realist and the relational-material approaches in this section.

It is useful to first review the pioneering and synthesising work of Rose (2016), who discusses many of the above approaches in relation to how images can work, be looked at, and relate to wider culture. She posits three sites of meaning within the visualising process – *production*, *image* and *audience*, each of which are affected by distinct modalities – *technological*, *compositional*, and *social*, articulated in Figure 89 (Rose 2016, 20). This figure shows where

<sup>68</sup> The participatory approach was intended to be used in formal analysis of the photo-story collection, however this proved prohibitive due to time constraints. In response I separated the formal from the participatory analysis, the latter processes which I adapted into photo-elicitation inside the workshop process, discussed in Chapter 4 and Chapter 6.

particular forms of analysis are situated relative to those categories. For instance, with respect to the project I have touched upon imaging technologies in Chapter 4, and similarly will discuss audience engagement in Chapter 6. Rose advocates for concentrating analysis on specific modalities, as too broad a scale risks a lack of coherence. Thus I focus the analysis here on the site of the image itself, indicated by the blue circle.<sup>69</sup>

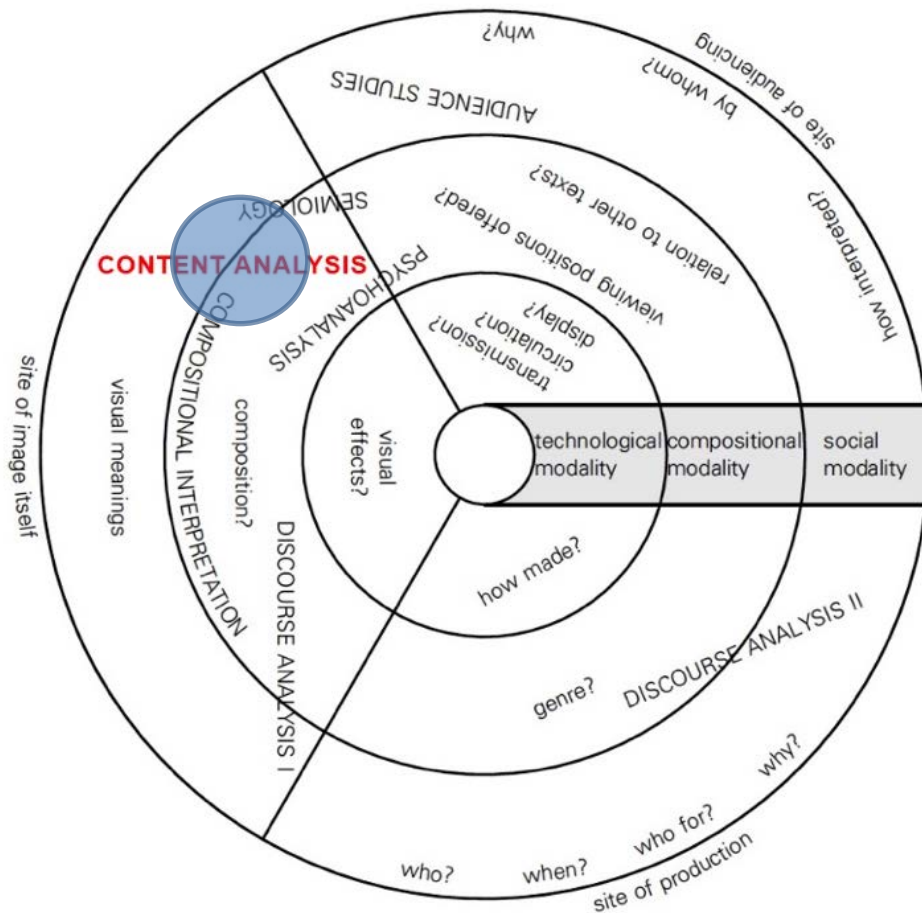


Figure 89 - Landscape of visual analysis methods (Rose 2016, 20)

These approaches are examples of what (Yates 2010, 283) calls '*window to the world*' photographic research, which see photographs as establishing new knowledge about people and things in the world, in contrast to '*window to identity*' projects which use photographs to explore the inner life of participants. However, regardless of the orientation of the inquiry, the photo-stories themselves may frequently combine aspects of both participant-representation elements *and* concrete 'countable' elements (Emmison 2004). As such there are challenges for researchers to avoid speaking for participants or representing their voices uncritically, while avoiding over or underestimating their own voice or role in the process (Drew and Guillemin 2014).

<sup>69</sup> Although Rose (2016) does not discuss relational visual analysis, according to her schema it would be situated on the overlap of compositional and social modalities.

To address these challenges, Drew and Guillemin (2014) propose a three part visual analysis method: firstly participant engagement, then researcher-driven analysis, and finally re-contextualising the images in the context to relevant theory. Having covered participant engagement through the photo-elicitation and caption development in Chapter 4, I proceed to the analysis in this section, located through Rose's (2016) schema. Firstly I use the content analysis approach to sketch a 'birds eye' view of the photo-story collection to reveal specific visual themes (Wall, et al. 2013). Secondly, I explore relationally through an *actor network theory* approach, to see what the photo-stories look like when the human subjects are de-centered and their more-than-human dimensions considered, in order to invite a broader understanding of environmental behaviour.

## 5.4 Realist content analysis

I conducted the content analysis in three rounds of increasing detail, illustrated in Figure 90.

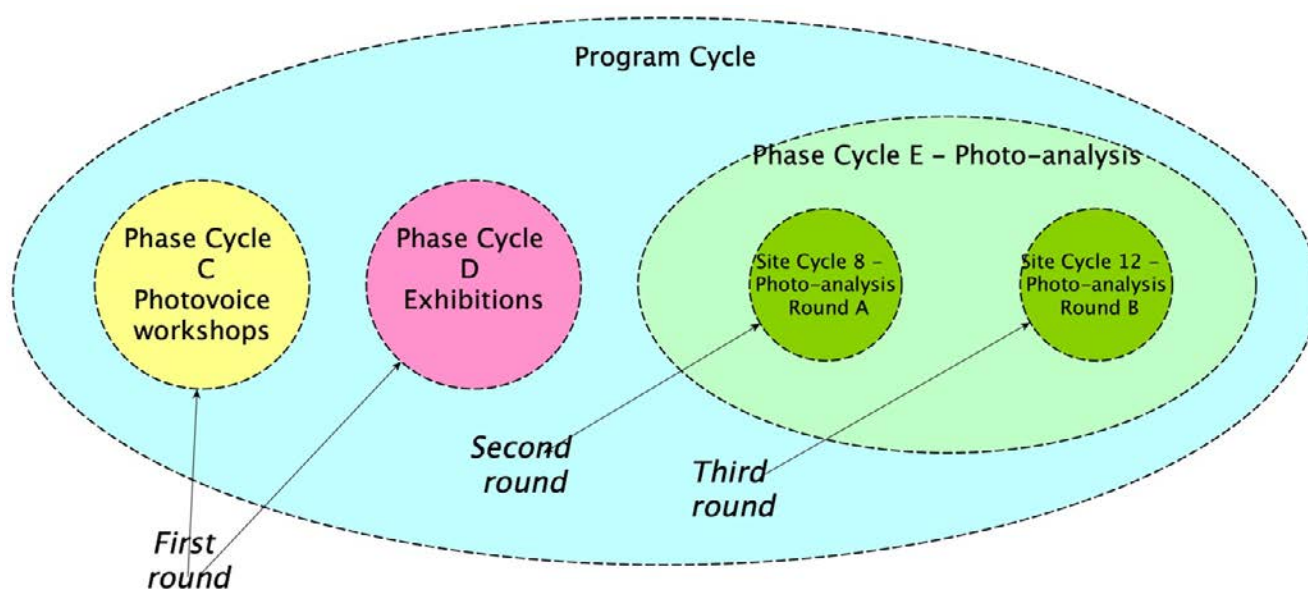


Figure 90 – Subset of full program showing photo-analysis site-cycles

### 5.4.1 *First round analysis*

I initially employed informal analytical approaches as part of the photovoice workshops' evaluation. They included:

#### 5.4.1.1 Post-workshop photo-story overview

This was an informal review of the photo-stories resulting from each workshop, including discussion of observations with volunteers where possible. I could then modify the workshops based on this informal feedback. An example discussed in Chapter 4 was adding more ideation content after finding photo-stories lacking in deeper narratives.

#### 5.4.1.2 Exhibition filtering and gathering










I employed basic sorting and filtering of the photo-stories in the process of organising exhibitions. Each filtering process attempted to a) assess an overview of photo-stories, b) select from this overview for exhibition purposes. I selected representative samples based on photo-story themes. Exhibitions are discussed in depth in Chapter 6.

I defined these small-scale reflective methods to be a kind of 'vernacular analysis' that emerged organically through the above processes of photo-story creation (workshops) and audience engagement (exhibitions, interviews), responding to each of these individual processes, while purposely ignoring the wider and growing multi-site photo-story collection. They formed a part of the reflection-in-action critical evaluative process (Schön 2017), which provided a visual feedback loop that kept me engaged and close to the photo-stories. Another way that I located these practices is seeing them as an essential visual self-reflective process of doing practice-based research (Barrett and Bolt 2014; Nelson 2013). I drew upon my tacit practitioner knowledge where to be responsive *to* the situation at hand was more important than any kind of objective knowledge *about* the photo-stories.

## 5.4.2 Second Round Analysis

This was my first attempt to systematically examine photo-stories across the whole collection. However, as a large portion of the collection were either untranslated or yet to be submitted at the time of analysis (site-cycle 8), I selected a small portion (n=36) that I had previously featured in earlier public displays (exhibitions, postcards) – representing a breadth of responses from the various iterations of first round sorting. After experimenting with a few types of content analysis, I followed (Levison, et al. 2012), to use *qualitative content analysis* to code the photo-stories by image content (photograph) and theme (text), using a spreadsheet to manually code, sort and analyse the visual data. An extract showing its basic form shown in (Table 18), with further data in Appendix D1.

Table 18 - Second round coding schema (extract)

Cou ntry	Location	Photo	Text	Perso n?	Primary Theme	Secondary Theme	Primary Argument	Secondary
China	Beijing		Our project designed a series of course to help more and more family to turn organic waste into fertilizer by making and using a simple "Ecoworm Boxes" at home.	Y	education	waste	community	Solution
Dhaka	IUB		Slum children live in an extremely vulnerable and polluted environment. Education seems to be luxury to them as survival is the hardest part. Their lives are shadowed by poverty, illness and hunger but they keep dreaming to	Y	education		resilience	Solution
China	Hangzhou		Residential area of the wind power generation display device, and the network is connected to the cell door switch to reduce energy consumption.	N	Energy	community	Technological efficiency	Solution
China	Beijing		你: A meal at home VS a meal at M While Beijing China industrializing in the past 3 decade, our lifestyle also rebuilding. Along with inputting Goods and patterns from developed countries, we also gain a high-cost	N	Food	Modernisation	Old is gold	Solution
China	Hangzhou		"The sweet potatoes no added pesticides, a big, sweet, pure natural, is an healthy choice." An over seventy years old women said.	Y	Food	Chemical-free	Nature as life giving	Old is gold
China	Hangzhou		We are so happy to see such a beautiful blue sky, and take a photo of it. But I want more. I want to have the happiness when every time I raise my head rather than the fear of losing it. Blue sky should not be the luxuries.	N	Pollution	Sight	Direct connection with nature	photographer subjectivity
China	Hangzhou		The stone in this picture is not a real stone. It is actually a box made of waste. There is a stereo in it that can play music. During the break, the students can enjoy the wonderful music. In environmental protection,	N	Repair/reuse		Solution	
Dhaka	Jaago		The picture (above) illustrates not to throw away plastic made materials and papers just anywhere. This person buys used paper and plastic materials so we can sell ours as well. If we throw away plastic made things here and	Y	repair/reuse		solution	
China	Hangzhou		Today I show the photo for everyone is about the daily protection of the environment. In the picture we can see that a silver-haired sanitation grandfather is now on the steep walls of the river, carefully swept	Y	Waste		invisible/visible	Solution



2. **Repair/reuse** – this was a direct solution to these waste issues identified, and the next most common theme. This encompassed diverse responses including material efficiency, durability value, innovation, and livelihoods. In contrast to the high visibility of the waste issue, the responses varied in visibility – from the highly visible in the form of livelihood (#31-*waste recycler*), to the actively hidden people (#10 – *nameless anti-litter man*) or things (#14-*waste speaker*), suggesting the importance of photovoice’s *visualising* approach in highlighting and differentiating these responses.
3. **Plants** – were the next common occurrence, which participants noted to have both practical objective benefits (food provision, cooling, shading, oxygen) and affective subjective ones (aesthetics, mental contentment).

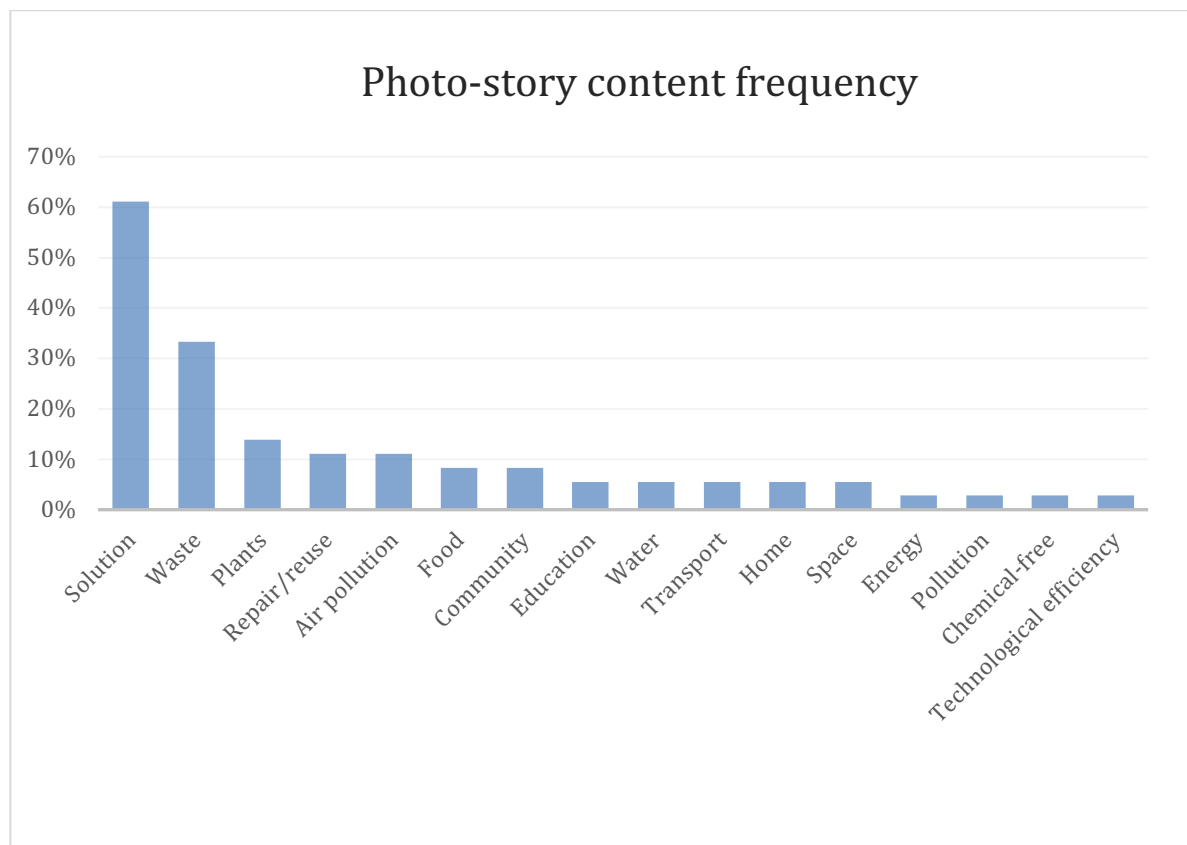


Figure 92 - Photo-story content frequency (% photo-stories)

Examples from each of the above clusters are reproduced below. The left photo-story (Dhaka) shows plants embodying comfort, aesthetics and invoking a responsibility to protect them. The centre story (Hangzhou) also encourages responsible actions, regarding waste, connecting the call to action with the story of hardworking ‘silver-haired sanitation grandfather’. Lastly, the right story (Hangzhou) is an example of the simple documentation approach.



Figure 93- Theme -'Plants'

*This picture (above) tells us about planting more trees. This pictures shows us different types of plants. If we plant more trees our environment will be cool and beautiful at the same time. We can use pots to plant trees in our houses. I have planted trees in pots in my house. We have to prevent cutting down trees because without trees our environment will be polluted.*



Figure 94 - Theme -'Waste'

*In the picture we can see that a silver-haired sanitation grandfather is now on the steep walls of the river, carefully swept the water and the paper on the wall. In fact, we have countless people like the picture of the grandfather in the same sanitation workers, their daily morning and evening return, hard work is to make our daily life more beautiful environment. So I like to let each of us work together to protect the environment from my start, let our homes better, but also to those quietly dedicated sanitation workers do not have so hard.*



Figure 95 - Theme 'Repair/reuse'

*It's a Drifting bookstore. There are more than 120 drifting bookstore in Hangzhou, not only benefit the nearby residents exchange book, but also easy to manage. People can browse these books and use their own books to exchange what they want to read. These books come from some institutions, donation and part of government procurement.*

### 5.4.2.2 Text themes

I used similarly used QCA in the text theme analysis to identify overall themes of the photo-stories, this time focusing on their participant-generated captions. I open-coded these texts based on emergent themes, then axial coded them to organise these themes where appropriate (Saldana 2015). Figure 96 shows a frequency word cloud representation of raw text, Figure 100 shows a frequency summary.

Insights included:

1. **Personal stories** – were the largest distinctive category. Most of these were the narrator's personal story, suggesting that the photovoice process allowed them to connect their photo-story themes to their own life.
2. **Sight** – engaging with the act of seeing, photographing, visioning was equally popular. Many spoke of the human-nature connection through affective and multi-sensual means, affirming the connections between visualisation and emotional expression.
3. **Nature as life-giving** – the next most frequent theme, directly relating human and natural well-being, through emotional fulfilment and physical health.



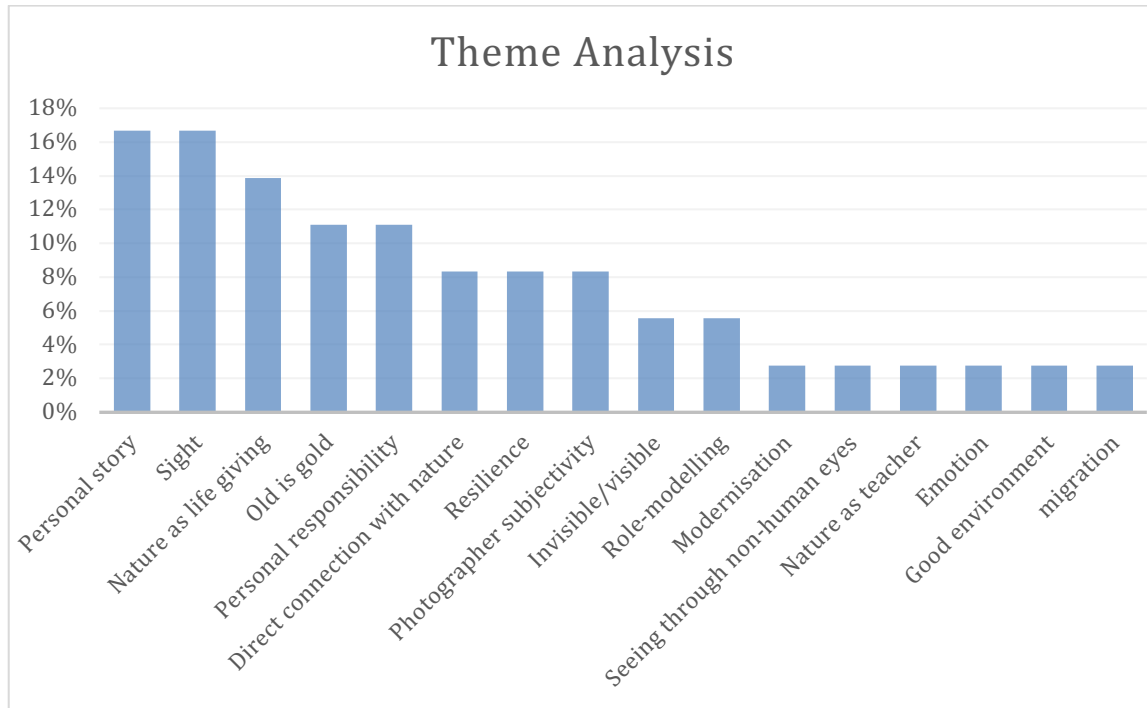


Figure 100 - Text theme frequency summary

#### 5.4.2.3 Reflections on second round analysis

In self-selecting the images I am cognisant of my own cultural framing; the historical, geographical, culturally and socially specific ways that my ways of seeing have been learnt (Rose 2016). Specifically these modes locate me as a Western middle-class male within the Australian site, with culturally-specific ways of seeing, which may include cultural traditions of viewing non-Western images through exoticism and gendered ways of seeing (Lutz and Collins 1993). Thus this analysis is limited in providing ‘objective’ insights about the demographic (site, gender, age) relationships to how environmental behaviour is visualised across the photo-stories collection. From a technical standpoint the spreadsheet method approach also lacked dedicated coding analysis capability which limited the breadth, depth and visualisation of analysis.

However, the usefulness of this simplified content analysis approach lies in its ability to provide a snapshot overview of the diversity of collected photo-stories at a specific project stage, providing key feedback on the nature of the photovoice adaption processes, which is unable to be gleaned from process analysis in Chapter 4 alone. In particular it provides insights on the typology of photo-stories that were used as part of the public exhibitions (site-cycles 3,5), thus providing feedback on the engagement adaptation processes discussed in Chapter 6. It created the space within the project for me to step back and discern the emerging photo-stories’ themes. I sought to open up this space further through a more systematic third round of content analysis.

### 5.4.3 Third Round Analysis

I conducted this final round of photo-story analysis approximately one year later during site-cycle 10, and sought to specifically address limitations in the previous round by using a dedicated qualitative coding and analysis program, and to attempt to get beyond my own subjective bias by moving from the subjective self-selecting sampling to a more systematic QCA approach, described below.

#### 5.4.3.1 Sample selection and coding methods

Due to the multi-sited context, and iterative prototyping of workshop processes, the overall resulting photo-story data-set was exceedingly large for a study of this scope ( $n=523$ ), with most photovoice studies focusing on a far smaller number for their analysis (Ozanne, Moscato, and Kunkel 2013). To increase rigour in content analysis it is essential to sample a representative set from the collection (Krippendorff 2018). Therefore this time I broadened the scope to include whole class sets – choosing a subset of 8 photo-workshops (152 photo-stories) based on representative site and age profiles (Table 19).

*Table 19 – Selected photo-story sets*

PhotoSet_summary	PhotoSet	Country	Partner	Round
CN_FoN_1	China_FoN_1	China	FoN	1
CN_FoN_2	China_FoN_2	China	FoN	2
CN_FoN_3	China_FoN_3	China	FoN	3
CN_ZUMC_1	China_ZUMC_1	China	ZUMC	1
CN_ZUMC_2	China_ZUMC_2	China	ZUMC	2
CN_ZUMC_3	China_ZUMC_3	China	ZUMC	3
BD_CPD_1	Bangladesh_CPD_1	Bangladesh	CPD	1
BD_CPD_2	Bangladesh_CPD_2	Bangladesh	CPD	2
BD_Jaago K_1	Bangladesh_Jaago Korail_1	Bangladesh	Jaago K	1
BD_Jaago K_2	Bangladesh_Jaago Korail_2	Bangladesh	Jaago K	2
BD_Jaago K_4	Bangladesh_Jaago Korail_4	Bangladesh	Jaago K	4
BD_Jaago R_3	Bangladesh_Jaago Rayer Bazar_3	Bangladesh	Jaago R	3
BD_Jaago R_4	Bangladesh_Jaago Rayer Bazar_4	Bangladesh	Jaago R	4
BD_IUB_1	Bangladesh_IUB_1	Bangladesh	IUB	1
BD_IUB_3	Bangladesh_IUB_3	Bangladesh	IUB	3
BD_NS_3	Bangladesh_NorthSouth_3	Bangladesh	NS	3
BD_ICCCAD_2	Bangladesh_ICCCAD_2	Bangladesh	ICCCAD	2
BD_ICCCAD_3	Bangladesh_ICCCAD_3	Bangladesh	ICCCAD	3
AU_Livewell_1	Australia_Livewell_1	Australia	Livewell	1
AU_St Loius PS_4	Australia_St Loius PS_4	Australia	St Loius PS	4
AU_MWSC_4	Australia_Mount Waverley SC_4	Australia	MWSC	4
AU_ARRCC_4	Australia_ARRCC_4	Australia	ARRCC	4

I manually entered these photo-stories into *NVIVO* software, given ‘attributes’ which linked them to demographic information (site, gender, age), then coded them using a mix of process and sub coding (Saldaña 2015). Each photo-story’s image was coded first, then its participant-generated text coded, with two sets of different coding ‘nodes’ generated from these two sources. At coding ‘saturation’ these nodes were organised hierarchically using tree nodes to give more structure and thematic organisation (Appendix D2).

### 5.4.3.2 Photo Analysis

#### 5.4.3.2.1 Content

The content analysis showed the most frequently photographed subjects included – people, nature, plants, water, transport and space. Frequency graphs showing comparative responses across the sites are shown below (Figure 101).<sup>70</sup>

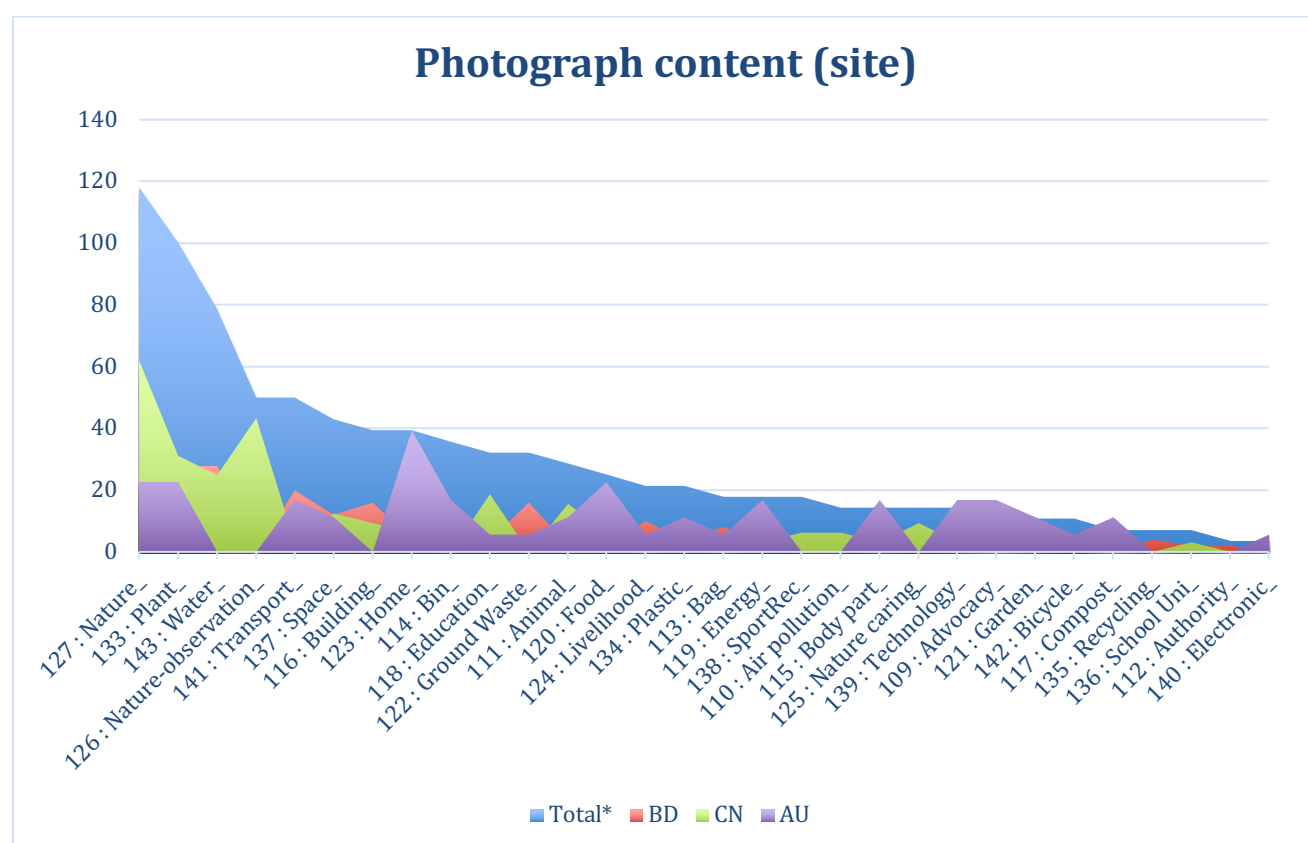


Figure 101 - Photograph content organised by site

<sup>70</sup> The largest category of ‘people’ were not included on these graphs as the large number would have compressed the Y axis and impaired reading.

### 5.4.3.2.1.1 People

*People* formed by far the most commonly photographed category, with overall men and boys being included more than women and girls – despite almost equal number of male and female participants (39, 38 respectively). This difference became more marked when broken down between countries – with a significantly higher – proportion of women found in Australian participants’ photo-stories, equal proportion in China, and much lower in Bangladesh.<sup>71</sup> This shows the influence that site-specific gender differences may have, directly or indirectly, on a multi-sited photovoice.

The photo-story pair below shows one example of *people* demonstrating similar themed environmental behaviour in Australia (left, re-using plastic bags) and Bangladesh (right, re-using jute bag). Interestingly despite vastly different participant backgrounds, the images show similar compositional qualities (framing, subjects, distance), with the focus being on the subject’s behaviour. The example shows the potential for photovoice methods to highlight similarities – thematic or formal – across multiple sites.



Figure 102 - Re-using plastic bags (Australia)

*Jenny has put a box in her front yard for neighbours to put plastic bags in. These can then be taken to the local council recycling depot.*



Figure 103 - Re-using jute bag (Bangladesh)

*We shouldn't use paper bags; paper waste can block our drains. Polythene bags also cause these problems. Using jute bags will not cause this problem and we should tell others to use such alternatives.*

<sup>71</sup> As most of the people photographed are not actually involved in environmental activities, this result is more likely to be reflective of public space gender norms than gendered dimensions of environmental participation.

#### 5.4.3.2.1.2 Nature and plants

*Nature* was the second largest category cluster<sup>72</sup> of content photographed, defined as background vegetation taking up primary visual field. In third place were *plants*, defined as foreground discrete vegetation. *Nature* was more common in China photo-stories than *plants*, while the reverse was true for Bangladesh; this is probably due to the older Chinese participants having relatively more flexibility to choose where they photographed than the younger Bangladeshi students who photographed ‘in situ’ during the workshops.<sup>73</sup> *Nature-observation* was the next largest in frequency under this cluster, showing people actively observing or recording information about living natural objects.<sup>74</sup> Females were much more likely to take photographs of any kind of nature including plants, which may reflect gendered participant photography preferences I personally observed whilst conducting a photovoice study in western India (Chew, Maheshwari, and Somerville 2019). The photo-stories below show contrasting examples of motivations for engagement with *plants* – the Australian one on the left shows motivations of self-sufficiency and community-building whereas the Bangladeshi one on the right references intrinsic environmental worth.



Figure 104 - Community garden (Australia)

*Participants in the Gordon Street Community Garden share an end-of-the-year dinner in the garden. They grow some of their own food there, and get to know neighbours when tending to their garden beds.*



Figure 105 - Planting trees (Bangladesh)

*We people are more intelligent than other animal in the world. But we are cutting trees and damaging our environment. Please don't cut trees if you have to plant 10 in that place. We should need 25% trees according to the area of Bangladesh but we have only 18%. We should plant more trees. Please love the nature for futures sake.*

<sup>72</sup> Category cluster refers to a set of thematically related codes.

<sup>73</sup> Another contributing reason was the Beijing sites included two workshops in specific ‘nature areas’

<sup>74</sup> All these photo-stories were from a particular nature excursion workshop in Beijing with Friends of Nature, being rarely representing in other sites, suggesting that this mode of nature connection is not frequently seen as being a part of ‘positive environmental behaviour’ without specific guidance or site context.

### 5.4.3.2.1.3 Transport

Photographs including *transport*-related content were the fifth largest overall, being represented in approximately equal proportion between Bangladesh and Australia but with only one photo-story from China. Bangladeshi forms of *transport* were generally related to livelihood (fishing, rickshaws etc.) unlike commuting and general transport representations in Australian photo-stories. The photo-story pair below shows this contrast, showing a ‘post-consumer’ motivation arising from individual choice from the Australian subject, while the Bangladeshi rickshaw driver is unlikely to have such a choice.



Figure 106 - Post-consumer transport

*Liz has sold her car and now cycles as her main form of travel. She has just bought this bike trailer to do the shopping.*



Figure 107 - Rickshaw

*We should all use Rickshaws. Rickshaws don't pollute the air or the atmosphere. It doesn't emit black smoke. We can use this as an example for a cleaner environment.*

#### 5.4.3.2.1.4 Waste

In this third analysis round, *waste* was less represented, due to the expansion of photo-stories sampling.<sup>75</sup> *Waste* was most common in the Bangladesh photo-stories, where it is more visible due to lack of systematic waste collection systems compared to the other sites; however, the latter two countries actually produce more waste per capita (Hoornweg and Bhada-Tata 2012). Several Bangladesh photo-stories showed this view, for instance in (Figure 108).



Figure 108 - Wasting too much? (Bangladesh)

*The people of our country wastes too much. So, it is difficult to change our habit of wasting and adopt the habit of reusing.*



Figure 109 - Ewaste recycling (Australia)

*Nina deposits used items at the council recycling depot – fluorescent globes, electrical equipment and plastic bags.*

Photo-stories from Australia had less of a focus on *waste*, which may be due to increased infrastructure and resources that enable it to be disposed of hidden from public view, in comparison with the other sites. E-waste featured in one the photo-stories, describing local recycling procedures (Figure 108). Materially speaking, the same e-waste may have had its manufacturing origins in China, be used and then disposed of in Australia, then ultimately transported to Bangladesh for recycling (Shinkuma and Huong 2009). Both production and recycling entail considerable toxic environmental hazards. These *waste* discussion points were useful to include in workshops to stimulate discussion around global environmental justice issues.<sup>76</sup>

<sup>75</sup> In comparison the second round photo-story set had more participants from slum areas, in whose visual environments waste is much more prevalent.

<sup>76</sup> Specifically the Blackberry camera-phones – donated in Australia, manufactured in China – had matched these broad trajectories, and hence were a very effective talking point at the workshops.

### 5.4.3.2.1.5 Air pollution

*Air pollution* was mostly shown in Chinese photo-stories.<sup>77</sup> The participants generally did not visualise it directly, instead relying on their text to show meanings. Its relative invisibility at the other sites was a barrier to its visualisation through photovoice.



Figure 110 - Air pollution 1 (China)

*Look out from the window, sand and wind in distance, getting closer, panic in heart increasing, where is our home? In the corner of the city there is still green, are you willing to extend your hands to it?*

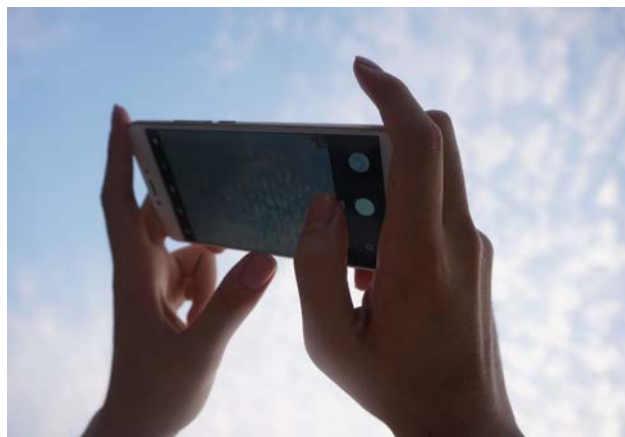


Figure 111 - Air pollution 2 (China)

*We are so happy to see such a beautiful blue sky, and take a photo of it. But I want more. I want to have the happiness when every time I raise my head rather than the fear of losing it. Blue sky should not be the luxuries.*

## 5.4.3.3 Photo-story form

Although most of the analysis focused on the content, some observations were made on the formal qualities of the photos, which are inseparable to photographic meaning making (Rose 2016). Kress and Van Leeuwen (1996) posit *distance* and *focus* to be important elements that can symbolise ‘social distance’ – with closer photos implying a more intimate relationship with subjects than distant ones. Photographs were coded at close, medium, and far ranges, with the majority being medium distance, followed by close then far (Figure 112).

<sup>77</sup> Although Dhaka also has very high particulate matter count it is generally larger particles and less dangerous than 2.5micron level which is a more serious health issue in Beijing.



Figure 112 - Close, medium and far examples from Jaago Rayer Bazaar, Round 3.

The China photographs were taken mainly with DSLRs and exhibited significantly more constructed, differently angled, and close up forms, while having the lowest eye-contact. As the Dhaka primary and secondary cohorts were limited to taking their photos in situ during the workshops, they were constrained to work with the physical areas around the schools, whereas the other participants had no such limits, and greater access to DSLRs. There was a proportionally greater number of constructed images in Bangladesh and China compared to Australia, inferring efficiency of the workshop process to produce more complex images than submissions process alone of the latter.<sup>78</sup>

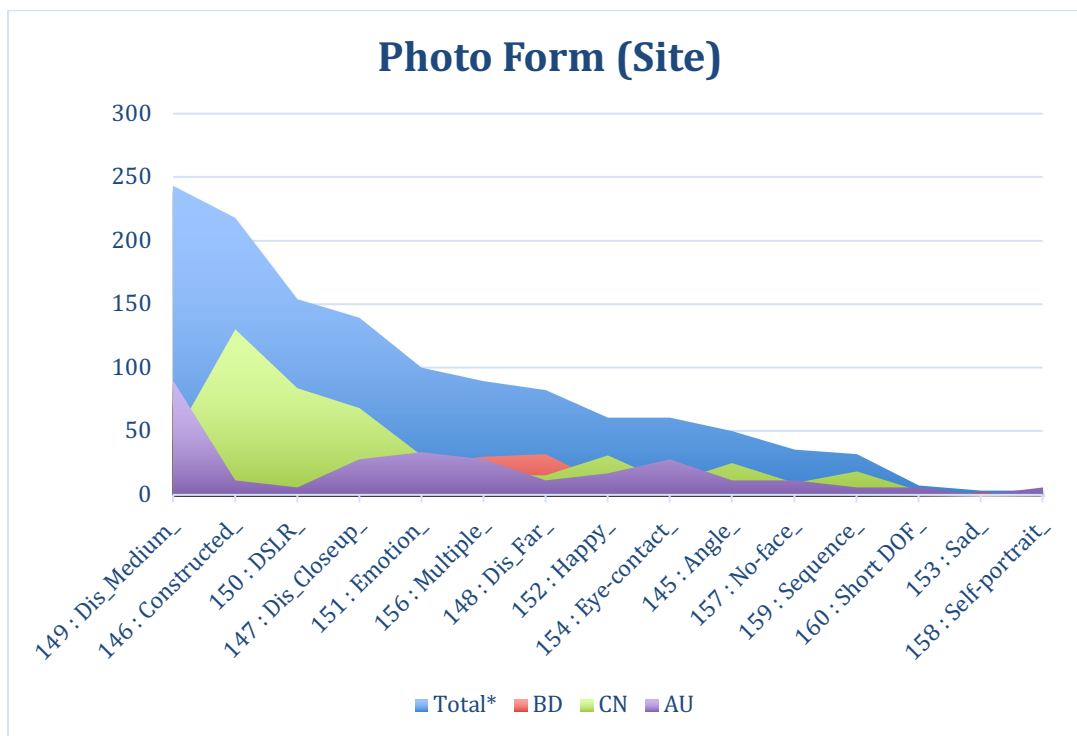


Figure 113 - Photograph form frequency

<sup>78</sup> As I conducted this analysis before all the photo-stories could be properly collected from the two Melbourne schools, I could only use the first round photo-stories from local Melbourne partner *Livewell* that were submitted directly without the workshop process.



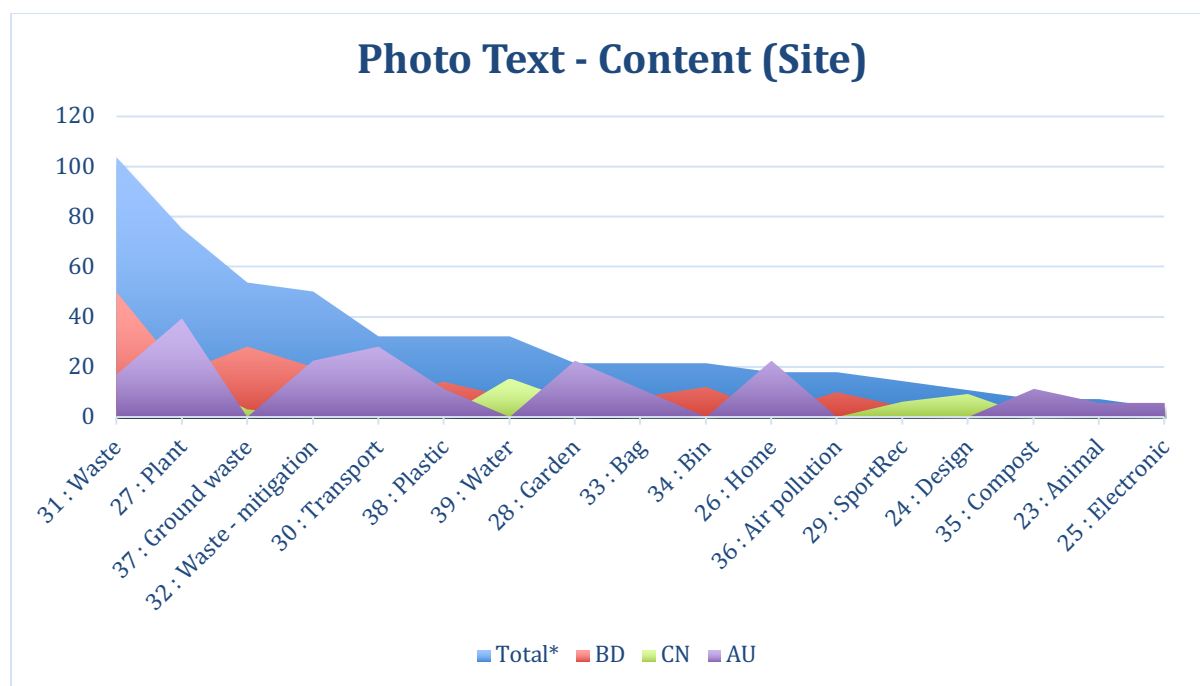


Figure 117 - Photo-story text content frequency

#### 5.4.4.2 Theme

While the image and text content analysis describes what subjects can be literally photographed and written about, the theme analysis looks at more abstract, broader concepts, and which tend to be harder to visualise, such as *education*, *metaphor*, or the *future*. These photo-story themes were open-coded then grouped into second order aggregate categories (Table 20) using a focused-coding method (Saldaña 2015).

Table 20 - Photo-stories themes

Freq. rank	Theme	Observations
1	<b><i>Nature</i></b>	Included sub-themes: <i>Nature connection</i> , <i>Nature-observation</i> , <i>Nature caring</i> , <i>Nature-damaging</i> , <i>Nature – life giving</i> , <i>Nature as teacher</i> , <i>Nature-child connection</i> . These are listed here in order of frequency occurrence. Just as with the content coding, females were more likely to write about nature overall, with specifically large divergences around <i>nature-connection</i> and <i>nature-observation</i> .
2	<b><i>Solution</i></b>	Expected to be popular given the explicit instructions given through the workshop processes.
3	<b><i>Education</i></b>	Encompassed a wide range of educational settings, from formal classroom instruction, to a riverside water quality testing workshop, to encouraging friends. China was by far the most represented, and female – however this was mainly due to educational theme of the workshop that many of the (female) participants attended and photographed.
4	<b><i>Food</i></b>	Covered a range of subthemes, the most common one being <i>local vegetable production</i> .
5	<b><i>Community</i></b>	An aggregate theme including additionally sharing and social, and represented very different contexts across the sites; it was very common in Australia where environmental behaviour was linked to <i>community-building</i> as an intrinsic good, Bangladesh only had one photo-story where community represented a nationalistic sentiment, and in China it was generally combined with educational behaviours.
6	<b><i>Aesthetics</i></b>	An aggregate theme including additionally <i>beauty</i> , <i>clean-dirty</i> and <i>space</i> . <i>Beauty</i> was only represented in Bangladesh and China, with <i>clean-dirty</i> being virtually only in Bangladeshi photo-stories, probably due to the primary and secondary participants living in ‘slum’ areas.

The full set is shown in Figure 118 below.

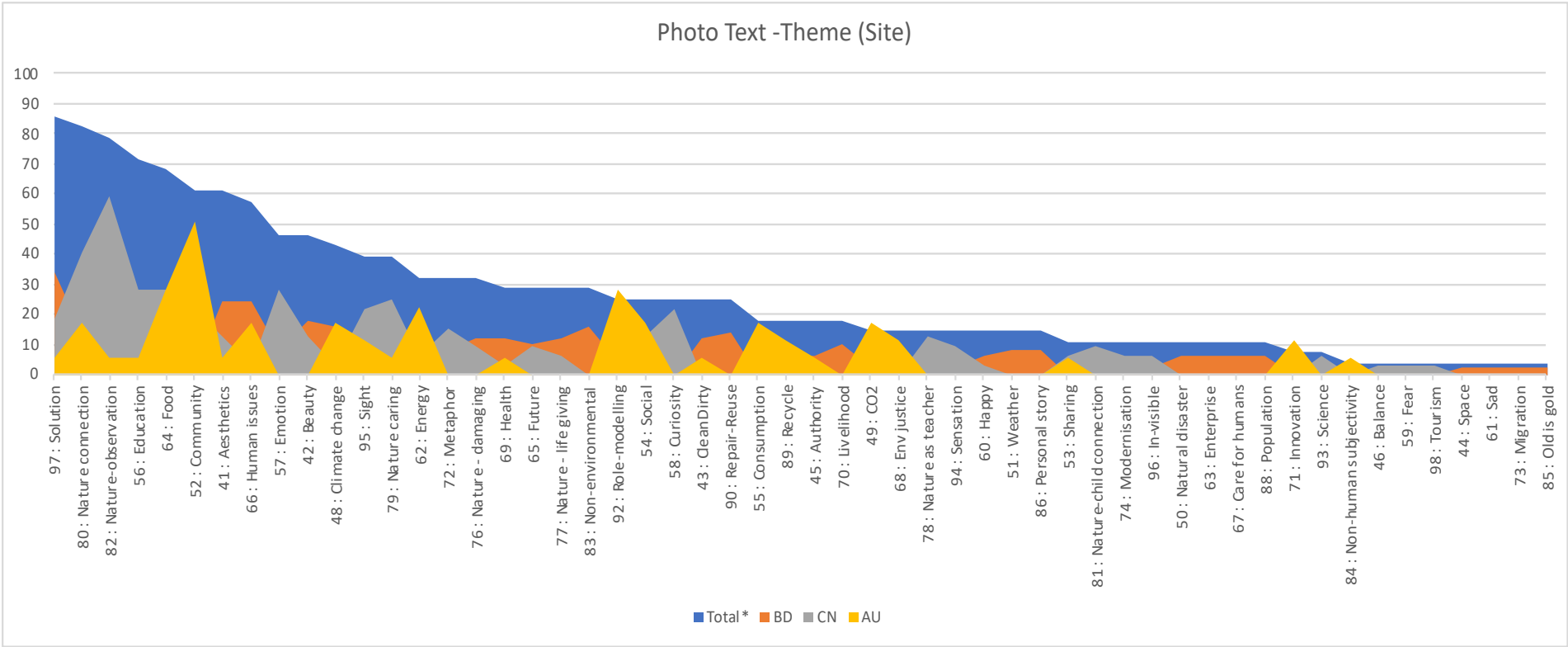


Figure 118 - Photo-story themes

### 5.4.4.3 Voice

The voice or subject position in which participants articulate their photographs can reveal orientations towards how they relate to the environmental behaviours. Some insights below:

#### 1) *We*

Uses of *we* were far higher on the Bangladeshi component than either Australia or China. However, when broken down by age, the younger students used this term more frequently, suggesting more collective orientations towards environmental behaviour amongst younger participants, affirming previous research (Chew, Maheshwari, and Somerville 2019). These insights over collective engagement helped to pave the way for the group action projects that are discussed in the next chapter.

#### 2) *Didactic*

Many photo-stories featured *didactic* elements – such as urging us to either *do* or *not do* the environmental behaviour. Didactic accounts were more common in the negative – perhaps because the problem (e.g. waste) is usually more visible than the solution (such as a bin). Yet as research suggests that positive-framing is more effective regarding motivating environmental behaviours (O'Neill and Nicholson-Cole 2009), this invites the question of how much guidance should be given to encourage the production of photos-stories that may be more effective in encouraging environmental engagement – versus leaving it entirely open ended and expressive, a question which I will return to in Chapter 6.

### 5.4.5 Discussion

The large range of environmental issues and their corresponding local solutions that were represented in this sample demonstrates the sheer diversity of the forms of environmental behaviour that can be visualised and communicated by these multi-sited photovoice methods, affirming its efficacy and flexibility. This also affirms the decision to broaden the workshop theme from the more technical and specific *climate resilience* – which proved difficult to communicate – to the broader concept of *local environmental behaviour*. Simplifying the photography theme thus allowed participants to create a wider range of expressions – rather than an overly specific focus which risked imposing external values and assumptions.

It was unexpectedly useful to be coding both text and image content with same code categories that then allowed for a ‘crosscheck’ of participants’ intent or idea (text) with their actual photograph. Further analysis may be fruitful to explore this on a more subtle level within coding categories. The text *voice* and image *form* data are as yet under-analysed and further work is needed to explore relationships between these textual and image expressions and the thematic categories that they represent.

The recurring theme of participants’ self-perception of their agency – such as ‘this is what I can actually do’, and *role-modelling* – has strong resonances with environmental behaviour change theory – which identifies both these factors as effective in engagement (Winefield 2005; Moore 2012). This suggests the efficiency of the photovoice method in facilitating such behaviour change messages – although it is difficult to know to what extent the workshop process itself influences these attitudes.<sup>80</sup>

Finally, the large amount of data invites appropriate methods to simplify and visualise key findings while remaining faithful to – and actively communicating – the limitations to this kind of inquiry.

## 5.4.6 Limitations

I found the content analysis approach to have two areas of limitation: *empirical* and *epistemological*, described below.

### 5.4.6.1 Empirical

Rigorous data collection and management procedures are necessary for content analysis to make well-founded knowledge claims (Krippendorff 2018). As many of the methods evolved during the course of the workshop rounds, this has limited some of the replicability of the process. One key example was photo-stories collected from primary/secondary Bangladeshi cohorts taken *during* the workshop when cameras were available, while tertiary participants had more time to take them *between* the workshops.

Although the analysed data-set was of substantial size, certain sub-categories were limited (such as Australia having very limited photo-stories collected at time of analysis), and also from the necessary brevity or ‘thinness’ of the multi-sited field visits.

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<sup>80</sup> I attempted to address this question through a pre and post environmental attitudes and behaviours survey at the Hangzhou site, however the logistics of the double survey collection proved too difficult during the compressed timeframe.

Finally, despite my previous attempts, it is difficult to avoid data reliability issues in collection and analysis, such as the participants' photograph selection and writing process being potentially influenced by facilitators' own views (collection), and inaccuracies in the coding process (analysis).<sup>81</sup>

## Epistemological

These issues form part of the deeper epistemological position of the realist approach itself. The concepts of 'positive environmental behaviours' tends to draw on ecological modernist themes with certain assumptions of progress as discussed in the literature review. The act of counting image elements may also have an implicit assumption of the separateness of all actors, which is questioned in relational ontology. The realist approach assumes the camera is capturing a 'truthful' moment as it appears – which can be problematic when considering the constructed photo-stories. Furthermore the counting approach can only count what is *in* the images – whereas what is *not* may also be important (Mitchell 2011). In 'rewarding' the most photographed and most visible themes with attention and analysis, we may neglect the equally important yet difficult to visualise environmental engagements (Harper 2009), such as air pollution. The presence of a high degree of 'subjective' responses – those emphasising the participants' *relationship* with the environmental behaviour or the non-human actor (rather than simply documenting it) – suggests the importance of considering a complementary *relational* perspective to the analysis.

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<sup>81</sup> Ideally the coding would be validated against a second coding to check for consistency (Saldaña 2015), however this was not feasible during the project timeframe.

## 5.5 Relational materialist thematic analysis

Following the inquiry into taxonomic *breadth* of the photo-stories using content analysis, I now explore the *depth* of most common theme – *nature* – using theories of relational materialism encompassed by *actor network theory*.



*Waste is everywhere! I don't want to waste anymore. So I am taking these coconut shells to reuse for many different purposes. One of my teachers told me once about recycling of used stuffs. Instead of throwing these shells in the garbage, I will make something useful out of it. Such as I can use it as plate, or planting small plants on it, keeping it on the roof as an umbrella. We can stop buying firewood and use these shells as fuel. I am so excited to take this away and start recycling.*

*Figure 119 - Girl on bicycle (Dhaka Jaago Korail)*

To differentiate this approach from the previous, let us consider again the photo-story in (Figure 119). Although a realist analysis would note the constructed nature of the photo-story, the latter's subtleties and depth of meaning would be lost in the reading. However, approaching this photograph through a relational lens opens up new possibilities. For example, it could invite a repositioning of the realist account of the girl as the sole *active* agent behind the corresponding behaviours to the *passive* coconut shells (*vertical* relationship), instead seeing the socio-natural assemblage of *coconutshell-cyclevan-girl* as offering various potentialities *through* which local environmental behaviour is realised (*horizontal* relationship). The materiality of the coconut shells

offer these potentials – plate, pot plant, umbrella, fuel – made possible by her behaviours that come into being only *through* her encounter with the cyclevan.

### 5.5.1 Thematic analysis

I take up the thematic analysis from where the content analysis left off – which identified the theme of *nature* as consistently the most prevalent across the sampled photo-stories. I organised into finer level sub-categories a representative sample of these photo-stories, through considering both image and text in a second round coding process employing focused coding (Saldaña 2015). In the process of doing this, it became clear that the overarching *nature* theme was more accurately represented as *nature-human connection*, within which were five sub-themes – *supporting humans*, *beautiful nature*, *reciprocal giving*, *sight* and *nature vs. humans* (Figure 120).

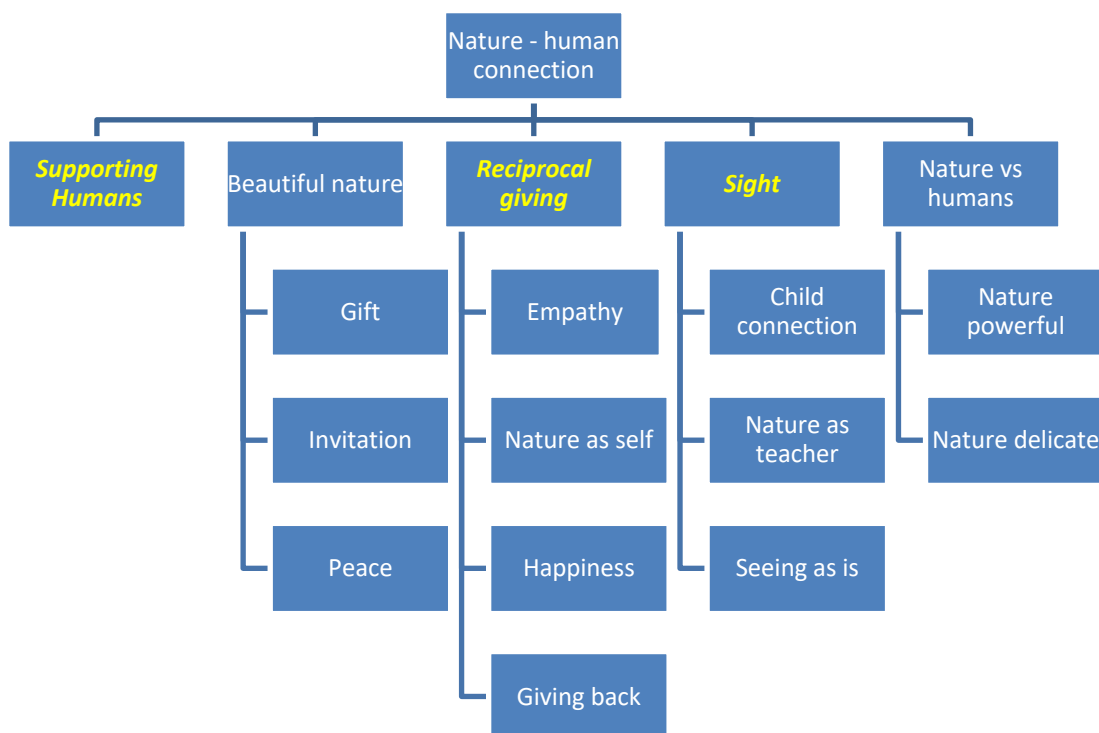


Figure 120 - Human-nature thematic map

I discuss the analysis of the three highlighted sub-themes – *supporting humans*, *reciprocal giving*, and *sight* – with respect to relational materialist approaches below. A note about images – I intentionally retain the more informal ‘post-it note’ display format as this helped me order and group the photo-stories. The full grouping storyboard is in Appendix D3.

### 5.5.1.1 Supporting Humans



Figure 121 - Nature - supporting humans theme

This was the only sub-category that had a consistent and convergent theme – that of nature, in the form of trees – protecting humans by offering shade from the sun (Figure 121). Considering the ANT concept of distributed agency allows us to view the trees' shade offering as a form of agency operating through the assemblage of *tree-human-sun*. In each case below this agency is expressed through the trees' intrinsic (shade-bearing) attribute coming into relationship with the human and sun actors. This is expressed and constrained in relation to the urban design and natural processes in which the *tree-human-sun* assemblage has developed (which are actually complex assemblages of their own).

In each photo-story the trees' shade agency is expressed through relationships with different actors – in the first it is the sun's movement that alters the trees' shade and subsequent human shade-seeking behaviour, in the second it is the man himself who is moving between shade patterns, these movements affected by the grass which shares the same soil and sunlight as the trees, and in the third the building itself seems to have stunted the growth of the tree; yet this partial shade has still drawn the working women to shelter below it.

Captured visually through each of the photographs, these trees can be seen as inseparable to the other forces acting in this urban environment – actually it is very difficult to photograph them or their shade as separate entities. In this sense it affirms the notion that this kind of socio-natural field of relationships are '*made up of many types of actants: humans and nonhumans; animals, vegetation, and minerals; nature, culture and technology*' (Bennet 2005, 445).

### 5.5.1.2 Reciprocal giving



Figure 122 - Human-nature reciprocity

These photo-stories cluster round the theme of human-nature reciprocity (Figure 122). This theme illustrates the emergent quality of becoming that characterises actors in their relational networks. A relational materialist perspective suggests a *horizontal, relational* rather than a *vertical, hierarchal* approach to the photo-stories. It is useful to consider here the relational materialist concept of *intra-activity* – describing the dynamic relationship between an organism (human or non-human) and its environment, which can be understood to be always in a state of intra-activity – of *becoming* together, rather than having clearly defined boundaries (Barad 2007).

In the middle photo-story, the text invites an entry point – the participant, by speaking from a non-human position – *'I am environment'* – allows one to read the photograph's subject from multiple perspectives. These multiple vantage points work to displace subjectivity from the 'human I' in either of the above components and shift it to the assemblages themselves that encompass these different configurations, thus opening up a more complex space around how agency acts *in, around, and through* the images. As noted above, agency emerges as an effect of the interactions *within* and *between* these assemblages; in this image it is displaced from the usual purposeful human action/actor – a *vertical* arrangement of subject onto the object – to the 'caring presence' of the environment itself – a *horizontal* arrangement of relationality (Hultman and Lenz Taguchi 2010). These mutual enrolments by both human and non-human actors therefore serve to co-constitute their relations.

In the photo-story on the left the participant shows damaged plants and writes directly from the empathetic perspective relating to the plant's shared experience as another living being which experiences pain. As empathy still is considered largely with an anthropocentric lens

within ethnography (Malcolm, Ecks, and Pickersgill 2018), these new forms of visualisations are especially important to open up spaces for human-plant empathetic encounters.

The photo-story on the right chronicles the photographer's gesture of supporting nature in the form of providing flowers for bees. Continuing the previous example, it is language that opens up spaces for encounter; here by using '*her*' instead of '*it*' for the insect she represents the latter with greater subjective depth. While the photograph's vivid and detailed depiction of the plant-bee interactions on one hand follows aestheticised nature documentary conventions, it is the text which provides a striking personal dimension to the photographer's relationship with plant and bee. Thinking through the lens of *intra-action*, whereby each ontological unit is actually a phenomenon in a process of becoming with others in the network (Maurstad, Davis, and Cowles 2013), each of the entities in the photographer-plant-bee network also come into play and intra-act together, invoking a materiality missing from both the realist ocular-centric regime and the interpretivist discursive-constructionist approaches.

### 5.5.1.3 Sight in human-nature relations



Figure 123 - Nature - sight relationship

The photo-stories in this thematic cluster express different aspects of seeing in the context of human-nature relations (Figure 123). A key assumption of the anthropocentric worldview is the privileging of human vision as the sole source of knowledge; a way of seeing the world which measures everything in comparison to it alone, flattening out the more-than-human subjectivities around us so we remain in the privileged humanist 'lighthouse beam' of consciousness encountering a world of objects (Chew 1994).

Instead, a relational materialist approach invites us to see with a non-anthropocentric gaze. One useful concept is presented by Donna Haraway – ‘response-ability’ (Haraway 2008), through which Alam, McGregor, and Houston (2018) mobilise in the Bangladeshi context an invitation towards photographic practices that are present bodily in space, and which establish ‘vantage points’ from which alternate knowledges can be seen.

An alternative invitation that maintains this bodily presence can be found in Bennett's (2016) concept of ‘enchantment’ – to be transfixed by an embodied encounter that connects us to the “*wondrous complexity of life*” (Bennett 2001, 110). Such enchantment brings into our awareness new things and opens up new possibilities of relating (Krzywoszynska 2016). I read these photo-stories with these invitations in mind.

The first photo-story expresses children’s connection to nature, showing children looking intently at nature, one through technology (cell phone), the other directly. In both instances the actual nature as object of the children’s gaze is difficult to see – it is rather the act of *seeing itself* which is shown, illustrating the assemblage of *child-cellphone-flower* through which this seeing is enrolled and made possible. This act of seeing can be read as *enchantment*; by looking at the children who are in this enchanted state relating to the plants, we are similarly invited to join this state ourselves – interrupting our detached spectatorship by jolting us into seeing in a deeper, more connected way.

The second photo-story explores the theme of nature as teacher through camouflage, where the composition shows directly this effect through framing the toad at a distance where its presence is only just discernible. By having the actual experience of this camouflage effect ourselves as viewers we are again invited to see from the position of the child playing hide and seek; this time to experience a different ‘vantage point’ that de-stabilises our own assumed dominant knowing gaze in the asymptotic moments just before we discover the frog.

The third photo-story strikingly demonstrates the non-human gaze by inviting us to see through a butterfly’s multiple compound eyes. It is a strikingly symmetrical proposition; we can either be *seen* by the boy through the toilet-roll-and-straw apparatus (multiple, as a butterfly may see us), or we can *see* him through these butterfly eyes ourselves. Either way the image invites the viewer to step temporarily out of the anthropocentric lighthouse, and into a world of acknowledged reciprocal relations (Abram 2012; Swimme and Berry 1992).

### 5.5.2 Discussion

Analysing the above human-nature themed photo-stories relationally has opened up and reframed agency from residing solely in the human subject to being distributed through an actor-network. It invites recognition of the distributed nature of subjectivity, which emerges through lateral relations. On the methodological level, these insights are important to multi-sited photovoice for two reasons. Firstly, the relational analysis can give valuable perspectives on how the photovoice methods can help us to (literally) see the participants' stories in different, more connected ways, giving a intimate close-up lens to illuminate aspects which may be missed by the broad strokes of content analysis. Secondly, by viewing the photo-stories as states of becoming encourages us to see the photovoice method as both generative of dynamic fields of evolving relations, and evolving itself, rather than simply a static ends-orientated data collection process. They thus become '*a practice of being inside a research event*' (Springgay and Truman 2018, 2).

### 5.5.3 Limitations of relational materialist approach

Firstly, subjectivity and cultural framing of the analysis is an issue – it is I, the outside researcher, who has interpreted the photo-stories, removed from their production sites. There are resulting risks from attributing conjectures, overlooking the local subtleties and specialised knowledges. It is a question of further research to develop a relational participatory analysis to explore more closely the visual-cultural-ecological relationships at each site and how they inform the findings.

The generalisability of the findings is another potentially limiting factor – as the focus of the analysis is on just a small collection of photographs, rather than a larger sample set in the content analysis. However, this is also a complementary strength – it allows us to zoom in and provide insights on the key emergent themes.

## 5.6 Summary

In considering the two complementary analytical lenses, the realist approach has the benefits of a high-level ‘bird’s eye’ perspective, yielding general themes through empirically considering the photo-story contents. *Nature, waste, repair/ recycle, air pollution, and plants* emerge as the most common themes, each of which can be split into finer categories, and which can provide critical feedback on how the photovoice methods are functioning at site level and what participants are drawn to photograph.

However, this is where content analysis reaches the limit of a surface-level approach. To make more definitive statements regarding the demographic relationship to such categories would require not only increased empirical rigour and a larger data set, but would also be fundamentally limited due to its humanistic epistemological assumptions. More importantly, in this methodological context it is unnecessary to pursue more ‘rigour’ in this sense to provide justification of the photovoice adaptation processes.

The relational materialist approach responds to these limitations by directing a finer scale analytical lens to the photo-stories in search of the relational human-nature dimensions. Three insights emerged – that of considering the relational quality of the actors as a *network* rather than discrete entities, the qualities and potential of a *non-anthropocentric gaze*, and lastly, the dynamic nature of co-constitution through *intra-activity*. Together these expand on conceptions of agency and subjectivity in environmental behaviour, and set the scene to consider the last research orientation, *influence*.



It's good to go to these rallies to be reminded how many other people believe what you believe...It reinforces the small things that I'm doing - collectively they are important. (photographer, Melbourne, Australia)

*"I feel pride. To protect our environment we do protest and also we change our some habits specially food habits. "Let the world change you then you can change the world". In this photo after changing our habits individually we got our to do rally about climate action that make us believe there are many more and collectively our opinion is important."* (responder, Dhaka, Bangladesh)

## Chapter 6:

# Findings C - Photo-story audience engagement

## 6.1 Introduction

This final results section explores the potential of multi-sited photovoice audience engagement processes to influence environmental behaviours. I build upon the multi-sited photovoice creation methods developed in Chapter 4 by experimenting and creating complementary *open photovoice* engagement methods in the form of exhibitions, interviews and group action projects. These reveal a rich ecology of both empirical data and relational understanding, which I analyse using the complementary forms of realist (QCA) and relational (ANT) approaches. These complementary approaches reveal the complex relationship between the open photovoice methods and environmental behaviour, and the potentials and constraints of ‘influence’ in this context.

## 6.2 Program-cycle

At the program-cycle level the influence orientation represented experimentation with various photo-story engagement processes in phase-cycles D, F, H (Figure 124 – Influence site-cycles). These first included *public exhibitions* (phase-cycle D, encompassing site-cycles 3,5,17), whose limitations inspired photo-elicitation in a one-on-one dialogical *interview* context (phase-cycle F, encompassing site-cycles 9,13), then adapting photo-elicitation processes to *group action projects* within the last overseas round of the project (phase-cycle H, encompassing site-cycle 15).

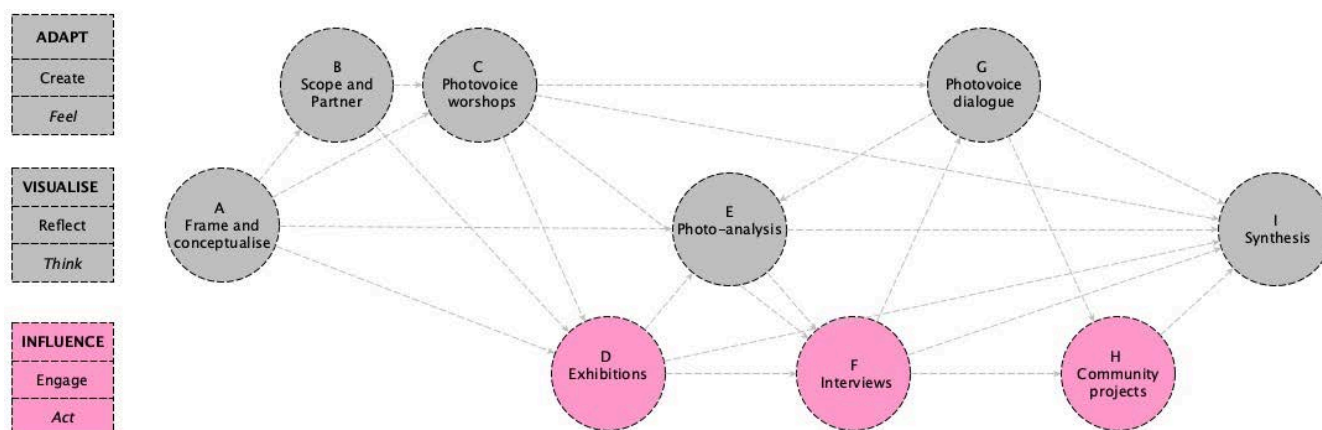


Figure 124 – Influence site-cycles

I continued the practice-based approach – of responding to what emerged through the actual action-research at the time – through these explorations of multi-sited photo-story audience engagement. The focus on influencing *environmental behaviour* specifically – as opposed to environmental learning or other outcomes – emerged through the discoveries below.

Some engagement processes were simultaneously their own evaluation methods (for instance interviews), while for others I developed specific evaluation methods. In the sections below I describe both the process and evaluation sequentially, following the structure of Chapter 5 where the realist approach maps out the broad view, followed by a more focussed relational case study. Due to space constraints I engage with a selection of the open photovoice engagement methods only, summarised in (Table 21).

Table 21 - Open photovoice engagement methods

Name	Engagement Method	Data collection	Site
Portraits of Change I	Exhibition	-	Australia
Portraits of Change II	Exhibition	Impact (Form/Content), Emotion, Gender	Australia
Portraits of Change III	Exhibition	Online pledge (eco-behaviours)	Australia
Jaago Exhibition	Exhibition	Online pledge (eco-behaviours)	Bangladesh
North-South ESM Exhibition	Exhibition	Online pledge (eco-behaviours)	Bangladesh
ZUMC Library Exhibition	Exhibition	-	China
Monash MSA	Interview	Textual response, emotions	Australia
Sustainable Living Festival Eco-action A	Interview	Textual response, emotions	Australia
Sustainable Living Festival Eco-action B	Interview	Textual response, emotions	Australia
Eco-action projects	community project	Textual response, photo documentation	Bangladesh

## 6.3 Realist approach

Following the realist visual analysis in Chapter 5, I assume that that viewers' engagements with the photo-stories – and any traces they leave behind as 'data' – are their direct impressions. I use QCA to code and synthesise themes, whose analysis is presented below.

### 6.3.1 Exhibitions

Due to the multi-sited time constraints, I took a simple exhibition approach inspired by (Nimmon 2007), with exhibition designs based around the photo-stories themselves and aims of audience engagement, rather targeting specific stakeholders. I document and explore firstly exhibitions I ran myself, then partner-led exhibitions (Figure 125), using empathy, physical, and socio-cultural contexts as previously discussed (Latz 2017).



Figure 125 - Jaago Rayer Bazaar exhibition presentation

### 6.3.1.1 Portraits of Change I exhibition

*Sustainable Living Festival, February 27 - March 20<sup>th</sup> 2016, Coburg Library, Melbourne*

This first exhibition explored an Australia-Bangladesh photo-story [visual dialogue](#) with a community audience (Appendix E1). Research suggests the importance of photo-elicitation in challenging Western viewers' perceptions of developing countries, however this has not been explored with relation to Asia (Mathews 2018). As photo-stories had yet to be collected from Bangladesh at time of exhibition (site-cycle 3), I started with a selection of photo-stories submitted through the Australia partner [Livewell Yarra](#),<sup>82</sup> and matched these thematically with my own photo-stories previously taken from Bangladesh (for example see Figure 127). These photo-story pairs were exhibited at the Coburg Library as part of the [2016 Sustainable Living Festival](#) (Figure 126).



*Figure 126 - Portraits of Change I*

I choose the public library context over a dedicated exhibition space to ensure a diverse audience. Research suggests public library users do engage with art, however there is a lack of studies exploring the actual interaction between users and art (Jack 2007).

I received positive responses from attendees and library staff regarding the impact of the Australia-Bangladesh visual dialogue, mainly regarding inspiring thought around environmental justice issues and curiosity about Bangladesh culture. A common criticism was that its impact was diluted in the visually cluttered library space – a challenging issue given the visual density of public library environments. However, the general and anecdotal nature of the responses made it difficult to discern specific relationships between the physical exhibition structure and the specific audience impact.

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<sup>82</sup> See Appendix C1 - these were collected through a call-out rather than workshop.



### Collection

Many damaged or worn-out products which would normally be sent to landfill in Australia, are repaired in Bangladesh by hand. These include low-cost items such as sandals as shown here. Australia produces approximately five times as much waste per capita than Bangladesh.

Jenny has put a box in her front yard for neighbours to put plastic bags in. These can then be taken to the local council recycling depot.

Figure 127 - Single exhibition panel (Bangladesh left, Australia right)

## 6.3.1.2 Portraits of Change II exhibition

May 23 – June 2 2016, MADA Hall Space, Monash University Caulfield Campus, Melbourne

I organised a second exhibition to respond to the above shortcomings (Figure 128, Figure 129), using the same photo-story pairs (Figure 127) to focus on exploring participatory audience engagement in a larger dedicated space (13x A0 prints across 24m, Appendix E1). Viewers were invited to evaluate their responses to these pairs via placing stickers next to each panel assessing both their perceived ‘*Impact*’ and ‘*Emotion*’ (Figure 130, Figure 131).<sup>83</sup> To provide insights on any gendered dimension to audience response, I invited viewers to choose their sticker colour based on their identified gender. Over the 15 day exhibition period the photo-stories collectively attracted 549 stickers, which I counted and magnitude-coded (Saldaña 2015) to quantify results (Appendix E2).

<sup>83</sup> I defined ‘Impact’ as the specific influence a photo-story has on the viewer, measured through two dimensions - its image, and the text. Viewers marked stickers on graded cartesian grids showing ‘Image form vs. Story content’ to rank impact of each on a scale from 0-10. I defined ‘Emotion’ as the photo-stories’ emotional influence on the viewer, and measured it through participants marking a ‘Wheel of emotion’ (Plutchik 2001). I chose Plutchik’s emotion wheel as it represented a standardised, simple and compact way of representing emotions for participants to choose from.



Figure 128 - Photo-story panels overhead

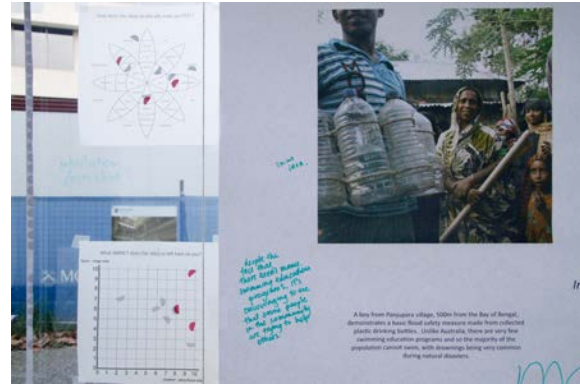


Figure 129 - Photo-story panels close-up

### 6.3.1.2.1 Photo-story pairing

The analysis suggested that the pairing does not necessarily give more impact, rather it can actually diminish it at times. Examining the collective emotional impact – the total of emotion stickers given (Figure 132) shows the most popular 2 panels all had pair engagement figures lower than their individual panels, and across the 12 panels, all but one had pair engagement figures lower than either of the individual ones (with 5 being lower than both), implying that individual photo-stories engage viewers more explicitly than their combination in pairs. The impact of *story* and *image* (Figure 200, Figure 201, Appendix E2) also supports this conclusion, with viewers rating the combined images as least impactful.



Figure 130 - Photo-story sticker response (impact)

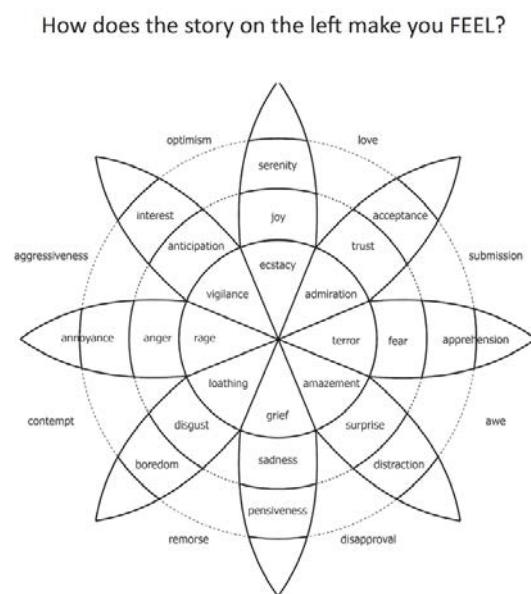


Figure 131 - Photo-story sticker response (emotion)

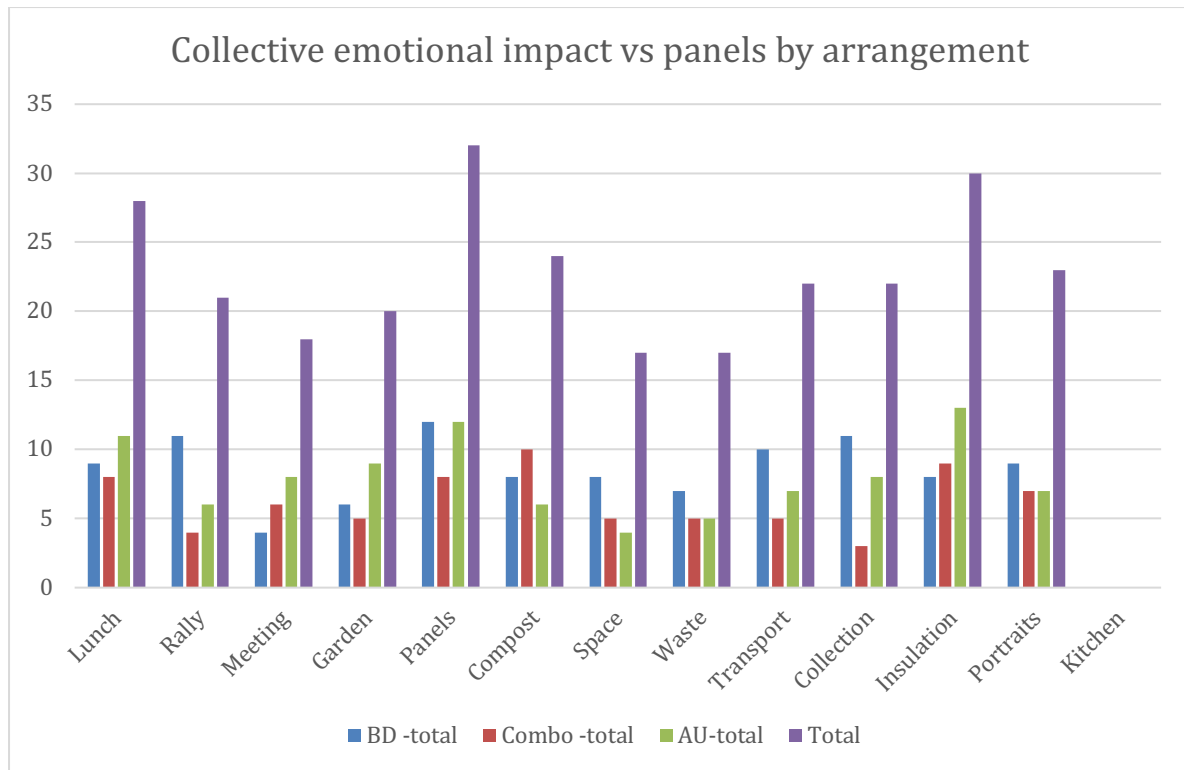


Figure 132- Collective emotional impact vs. panels by arrangement

#### 6.3.1.2.2 Gender influence on engagement

Although there were almost double the number of females to males engaging overall ( $f=181$ ,  $m=91$ ), this closely matched with actual Monash MADA student gender ratios at the time and thus showed no gendered influence.<sup>84</sup> Similarly, although within the engagement data there were some variations in both the gendered photo-story selection by emotion and collective emotions comparison, there was no discernible overall pattern (for data see Appendix E2).<sup>85</sup> These results suggest that engagement with environmental-behaviour themed photo-stories is independent of gender in this type of exhibition context.<sup>86</sup> As there is evidence of females exhibiting greater pro-environmental behaviours than males (Räty and Carlsson-Kanyama 2010; Zelezny, Chua, and Aldrich 2000), there remains further scope to investigate gendered dimensions to photo-story engagement.<sup>87</sup>

<sup>84</sup> Student demographic data obtained from Monash University Planning and Statistic showed student gender ratios were 65% Female; 35% Male, the observed engagement was 67% Female, 33% Male,  $p < 0.05$ .

<sup>85</sup> Based on my own observations of the student interactions, I found that groups interacting with the exhibition to be rarely gender balanced, and they tended to stick together during the engagements, most probably causing this internal variance.

<sup>86</sup> Although there may be more subtle gendered aspects to the engagements, for instance performative (Butler 2002), this is outside the scope of inquiry.

<sup>87</sup> Although initial research has suggested environmentally-friendly behaviour to be seen by men as un-masculine, and therefore avoided (Brough 2016), there is a lack of research in a cross-cultural context.

### 6.3.1.2.3 Emotional responses

I sorted the 32 emotions from the emotion wheels into ‘positive’ and ‘negative’ categories,<sup>88</sup> and aggregated results showed positive emotions were reported far more often overall, ( $p=178$ ,  $n=97$ ), and on average between the panels, affirming the engagement impact of positive emotions amongst the photo-stories (Figure 133). Bangladesh photo-stories compared to Australian ones had relatively more negative emotions (46 to 25), and less positives (57 to 71), (Appendix E2). One potential explanation is that the visually striking difference in living standards and visual magnitudes of the environmental issues compared to solutions (compared to the Australian context) may influence a more negative assessment. This helped me to see the importance of emphasising positive environmental behaviour, especially in the multi-sited context – which I embedded in the project through increasing training for this in the subsequent photovoice workshop trials (site-cycle 4).

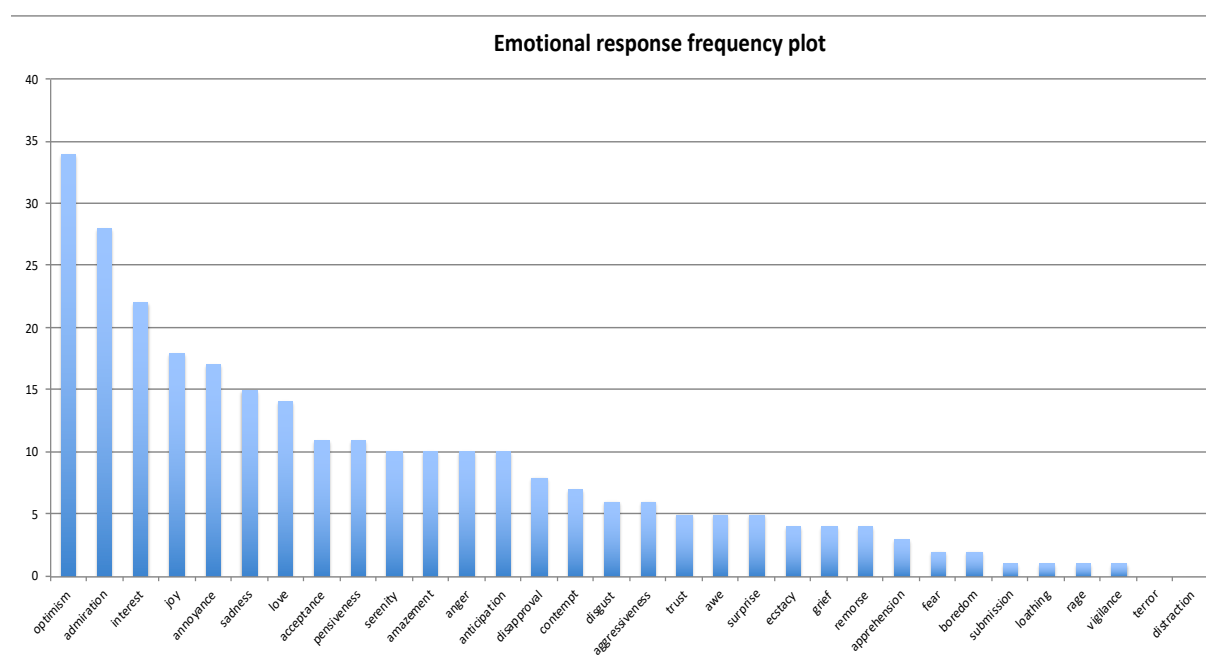


Figure 133 – Frequency plot of emotional responses

<sup>88</sup> Although this is obviously simplistic, categories such as these accords with the simplistic emotions of hope and fear discussed in the literature review.

#### 6.3.1.2.4 Image, story and emotional impact

Overall the photo-story *content* was rated to have slightly more impact than the *image* alone, (54% to 46% collectively, latter being rated greater in 10 out of the 12 panels (Figure 134), affirming the importance of context in reading an image (Boucher Jr 2017), particularly across cultural difference (Mathews 2018). The reported photo-stories' *image* and *story* impressions were generally balanced as they varied across the panels suggesting that the image and text worked together to engage the audience.<sup>89</sup>

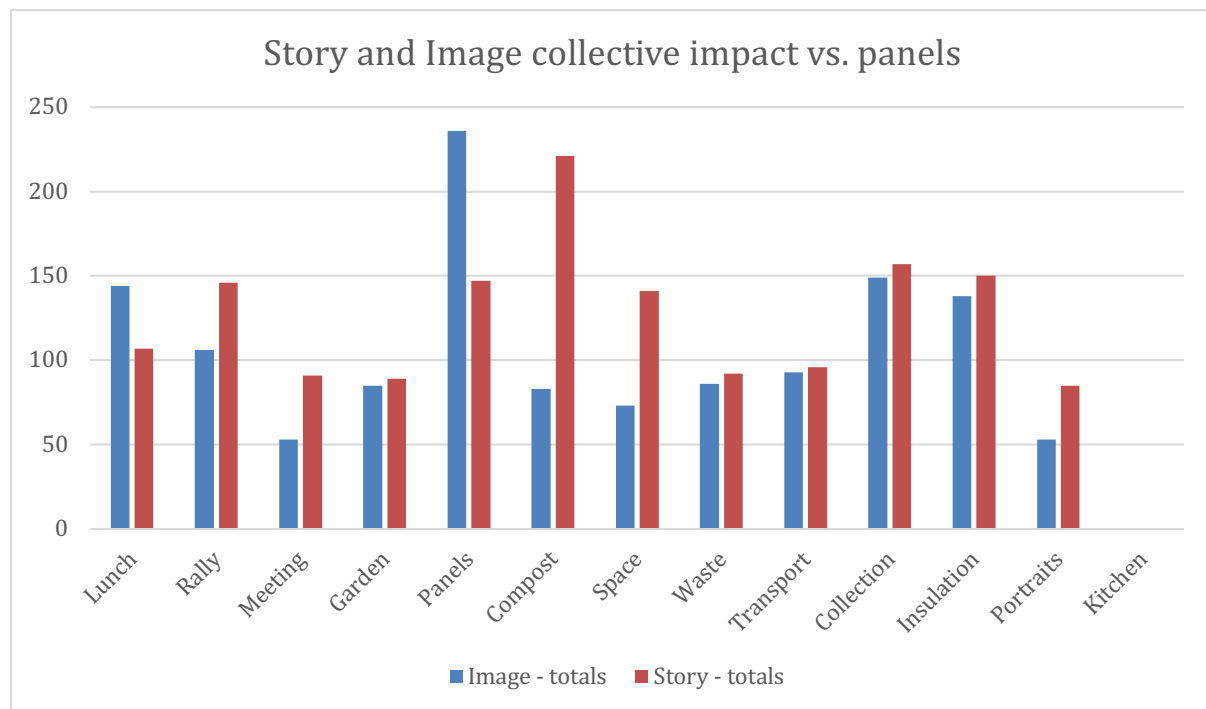


Figure 134 - Story and Image collective impact vs. panels

This trend continued when comparing *Image* and *Story* impacts to emotional impacts – the high impact images correlated with the top photo-stories chosen by emotion (Appendix E2) affirming that the emotional qualities of environmental images have key influences on their impact (Hespanha 2011), which may also influence environmental behaviours (McKenzie-Mohr 2011). Interestingly the only panel that showed a significantly larger emotional impact than its actual image impact was *Portraits*, suggesting that faces may elicit stronger emotions than other images.<sup>90</sup> This inspired the adaption of the *environmental action selfie* in Hangzhou workshops (site-cycle 7).

<sup>89</sup> This was beside two exceptions, which were the *Compost* and *Space* panels, where the greater story influence could be due to larger textual detail and solutions orientation of the story, compared to the images which were less impactful.

<sup>90</sup> Neurological research has confirmed the privileged role of facial recognition in emotional responses (Haxby, et al. 2002).

### 6.3.1.2.5 Online component

I added an [online form](#) duplicating the exhibition's interactive elements to compare online with physical engagement (Appendix E2). This had some key positives - it made it assessable to participants anywhere, and reduced the required data entry time while allowing more space for in-depth qualitative responses. One online participant wrote in response to the 'Collection' panel (Figure 127) - *"Really shows how crazy the level of waste is in the west ....especially by showing the value of these 'worn out' items in third world countries like Bangladesh."* This example affirms the power of contrast in the multi-sited context to bring awareness to otherwise less-visible environmental issues. From a methodological perspective, these responses inspired the subsequent photo-elicitation practices in the workshops and interviews.

However, this virtual engagement also had key limitations – it completely lost the physical immersive, spatial, and social dimensions of the physical exhibition, and added a new difficulty of recruiting visitors to complete the online form. After numerous responses to the first panels, online engagement dropped off quickly proportional to the position of subsequent panels in the online form, indicating very limited viewing patience in the online format (Appendix E2).

### 6.3.1.2.6 Discussion

Three findings were noteworthy from the analysis. Firstly, respondents viewed the photo-stories as being relatively more impactful than the images alone, confirming previous research (O'Neill and Nicholson-Cole 2009; Boucher Jr 2017). However, the relationship between *explicitly-stated* meaning in the photo-story text, and *implicitly-stated* meaning in the photographs themselves is difficult to discern given the lack of deeper qualitative data collection, and invites further research.<sup>91</sup> Secondly, the results show the dual format may be overwhelming for the audience and may need to be changed. Thirdly, a photo-story's impact (both story and image) was correlated to its emotional engagement, affirming the importance of emotions to such impact. Following from discussions regarding environmental engagement in Chapter 2A, this suggests the potential for these photo-stories to thereby influence environmental behaviour.<sup>92</sup> While these results affirm the capacity of exhibitions to generate affective engagement for multi-site

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<sup>91</sup> While previous research has demonstrated the accompanying text can strongly influence the emotional response to environmental photo-stories, it is difficult to discern whether it is the text itself that viewers respond to, or whether it is drawing attention to parts of the image (Hespanha 2011). I also acknowledge that the explicit - implicit contrast can be analysed on the level of the image alone (Rose 2016), however this was beyond the inquiry's scope and is a worthy subject for further visualising environmental behaviour research.

<sup>92</sup> However as per these discussions, this link is by no means causal, but rather tentative and complex.

photovoice practices, they caution against display formats which may overwhelm the audience – given the already dense nature of the photo-stories – and identify future research opportunities around the relationships between emotion, gender and photo-story impact.

There are also key limitations on these results. Firstly, there is an ethical tension entailed in seeking to determine attributes of an engaging photo-story for a participatory methodology where the emphasis is on supporting participants to develop their own stories, rather than what can specifically lead to environmental behaviour. Secondly, the sample size is both small and of specific demographics that make it difficult to generalise findings.<sup>93</sup> Thirdly ‘*Impact*’ is a broad term and could be interpreted widely – further work is required to define its meaning and link closer to environmental behaviour. Fourthly, complex spatial variables such as physical panel placement and viewer direction also influenced engagement.<sup>94</sup> Finally, the emotional measures are simplistic and quantitative only and do not capture the subjective depth behind the engagement. In response to the above challenges and learnings, I designed a third exhibition, discussed below.

### 6.3.1.3 Portraits of Change III exhibition

*Sat 4th - Tues 28th Feb 2017, Docklands Library, Docklands, Melbourne*

This exhibition extended the depth of participant engagement, and provided the first opportunity to gather public responses to the photo-stories generated through the workshops in site-cycle 4. I returned to a public community venue to ensure a diverse audience.

The exhibition included a workshop program (Table 22).

*Table 22 - Portraits of Change III event program*

Date	Event	Details
Sat 4th Feb 3pm	Opening 1	Celebrating Bangladesh and China photo-stories
Sat Feb 11th 11am-1pm	Photography Workshop 1	Local photography creation in response to Bangladesh and China photo-stories
Sun Feb 12th 2:30- 4:30pm	Photography Workshop 2	Photograph reflection and text development
Sun 19th Feb 3pm	Opening 2	Celebrating extra photo-stories contributed in Melbourne

<sup>93</sup> Comparisons with the other exhibitions are also limited as the audience demographics (tertiary art, design and architecture students) are very different to the general community in the first exhibition. In particular the large proportion of overseas students (predominantly from China) problematises any cultural homogenous concept of ‘site’ in multi-sited research (Coleman 2012).

<sup>94</sup> For instance viewers interact differently with the photo-stories depending on their initial physical orientation to the exhibit (Patterson 1987), and may encounter an equivalent of the visual-fatigue affect observed with the online photo-story responses due to repeated exposures.



Figure 135 - Exhibition main space



Figure 136 - Exhibition exterior

A key learning from this exhibition was the importance of the relational dimensions of photovoice exhibitions. As initially it included no photographs that were taken by the local community, I designed the workshop program to give locals the opportunity to submit photo-stories in response to their local area, as well as those already in the exhibition. However, as the workshops were poorly attended,<sup>95</sup> there was also low engagement in the actual exhibition – probably due to both lack of ownership and a distracting exhibition environment. While this was disappointing, it was useful in affirming the importance of these relational dimensions to participation.

To address the gap between audience engagement and environmental behaviour identified in the previous exhibitions, I developed processes for deeper audience engagement. As specific environmental behaviour commitments can be effective in influencing environmental behaviour change (Jackson 2005), I designed an online pledge for visitors to record and encourage reflection around their current and future environmental behaviour (Figure 137). In this way future pledged behaviours would be one specific environmental behaviour outcome of the exhibition.<sup>96</sup> Although engagement was low, the responses provided useful insights, such as providing an environmental behaviour ‘baseline’ – showing what behaviours participants were already engaging in, with the most popular pledges concerning communications – such as the *Telling Friends* and *Advocacy* categories. While there is no doubt scope to make the pledges more accessible and engaging, the same issue of lack of ownership of the stories themselves was a likely contributor for poor engagement, especially when compared to the results from the overseas community-run exhibitions.

<sup>95</sup> Poor attendance was mainly due to lack of publicity through the program partners, and the physical Docklands location being challenging to many people to find.

<sup>96</sup> I did not conduct follow up evaluation to see if pledges were honoured, which was a limitation. However, this inspired future evaluation in the subsequent photo-interviews (site-cycle 13).

## ZZ\_POC III Feedback

This form is to firstly gather feedback from you about the Portraits of Change exhibition, and secondarily invite you to take a Sustainable Living Pledge. The exhibition evaluation responses will feed into the Portraits of Change research program and help us in making the next exhibition more effective. The Sustainable Living Pledge will provide an opportunity to make personal commitments around environmental actions in your life. By completing the pledge in full you will go in the draw to win a copy of the beautiful photography book, 'Bangladesh Land and People'. We'll also send you a copy of your pledge and resources to help you achieve it.

① Page 1    ② Page 2

### Sustainable living pledge

*Most of us would love to have a clean, green world to hand on to the next generation. Yet so often we are so busy and can miss the simple steps it takes towards being sustainable. Taking this personal pledge can be a great way of achieving these steps! Good luck!*

My Sustainable Living Pledge:

I pledge to live a more sustainable lifestyle. I will do the best to consider the environmental, social and economic impact of my daily decisions and make every effort to reduce my environmental impact.

By committing to do at least a few of the actions below, I am joining others in my community to help create a more sustainable world.

#### 1. Use a refillable water bottle instead of buying new ones.

☐ I am already doing   ☐ I will do   ☐ Not now

*Will save you money! Consider glass or stainless steel and you'll never have to worry about BPA or any other nasties that can be found in plastic.*

#### 2. Carry around reusable bags and containers instead of disposable plastic ones

☐ I am already doing   ☐ I will do   ☐ Not now

*You'll save a lot of energy going into making the plastic as well as the energy required to dispose or recycle it. Plastic bags often end up in waterways, killing sea life. They are mostly unnecessary with a little planning.*

Figure 137 - Extract from online action pledge

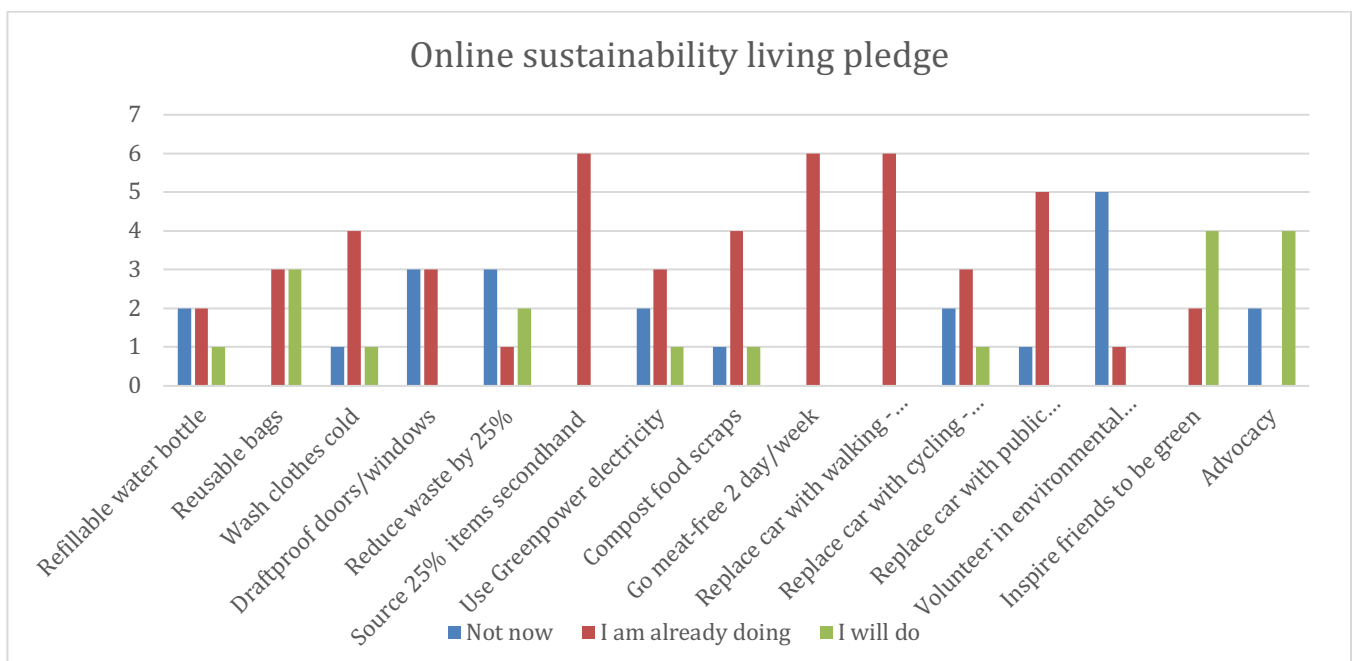


Figure 138 - Online sustainable living pledge

### 6.3.1.4 Local-organised exhibitions (Bangladesh and China)

A complement to these Australia-site exhibitions were local partner-organised exhibitions at other sites, which I set up to explore the relationship between local-ownership and the effectiveness of photovoice exhibitions at influencing environmental behaviour. To ensure this ownership I delegated the organising to the local partners and volunteers independently of my direction, beyond the general aim of showcasing the photo-stories to the community, and provided a budget (from previous crowdfunding) for them to use on food and publicity.

#### 6.3.1.4.1 Bangladesh - North South University exhibition

*December 17-23<sup>rd</sup> 2017, 4<sup>th</sup> Floor atrium, Environmental Science and Management Faculty, NS University, Dhaka*

This exhibition was organised through student volunteers at North South University's Faculty of Environmental Science and Management (ESM), following photovoice workshops run there. Participants had been particularly engaged during the workshops and subsequent exhibition as they had pre-existing environmental interests.



Figure 139 - North-South University Exhibition documentation. Further images are [here](#).

I adapted the previous Melbourne-based exhibition's online sustainability pledge to suit the most popular types of environmental behaviours that were emerging from the local photo-stories, balancing this with the environmental efficacy of these specific actions. This directly connected the photo-stories' *visualisation* with adaptation processes exploring their *influence*. Local volunteers collected survey responses from exhibition attendees (n=39), with the frequency of the pledged actions shown in (Figure 140), which, similarly to the dockland exhibition pledge results, shows participants already engaged in the smaller environmental behaviours, with a strong willingness to commit to the larger actions. Both Bangladesh exhibition evaluation and pledge data is included in Appendix E3.

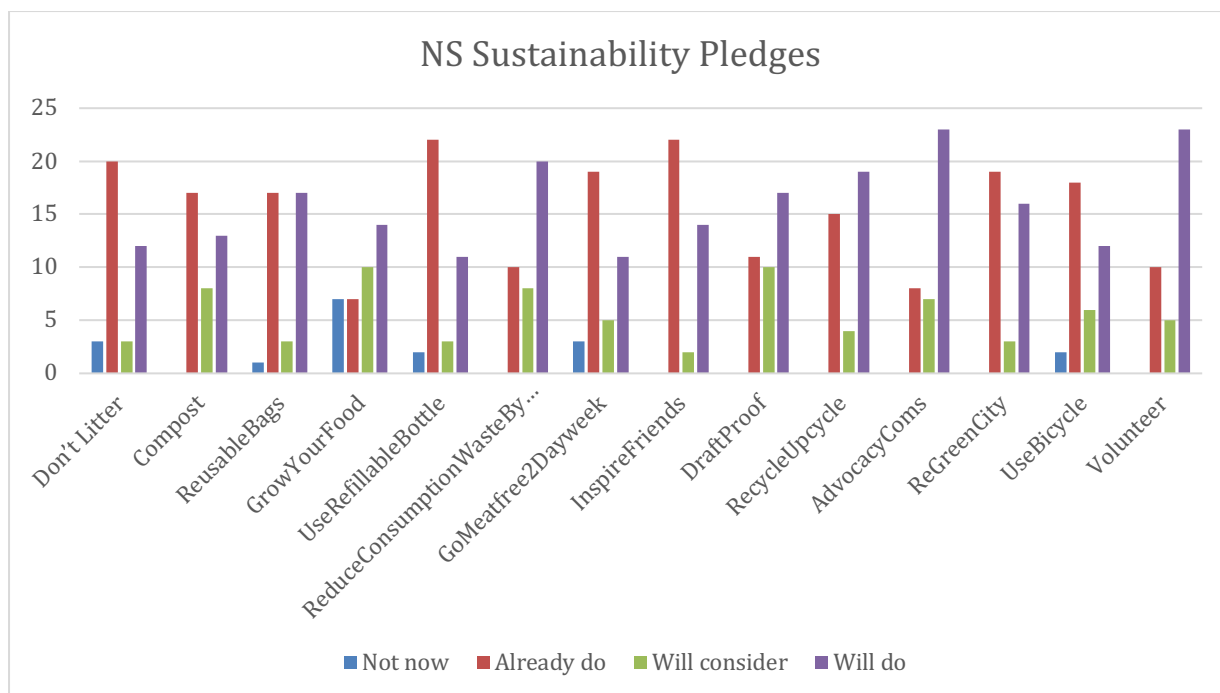


Figure 140 - North South Exhibition online pledges

#### 6.3.1.4.2 Bangladesh - Jaago exhibition

Jan 6-8th 2018, Jaago Foundation - Rayer Bazar, Dhaka

This exhibition was organised at Jaago Rayer Bazar school through *Volunteer for Bangladesh* (VFB),<sup>97</sup> following photovoice workshops. Students were extremely excited to be able to share the ideas behind their photo-stories directly with the public (Figure 141, Figure 142). I repeated the online sustainability pledge, however due to lack of smartphone access for the students, only Jaago and VFB staff were able to complete it.



Figure 141 - Jaago Rayer Bazaar Exhibition A



Figure 142 - Jaago Rayer Bazaar Exhibition B

<sup>97</sup> VFB is the youth volunteer sister organisation of *Jaago Foundation*, the umbrella organisation for the two schools in Korail and Rayer Bazar in which I ran workshops, and I partnered with them to source youth mentors for the students.

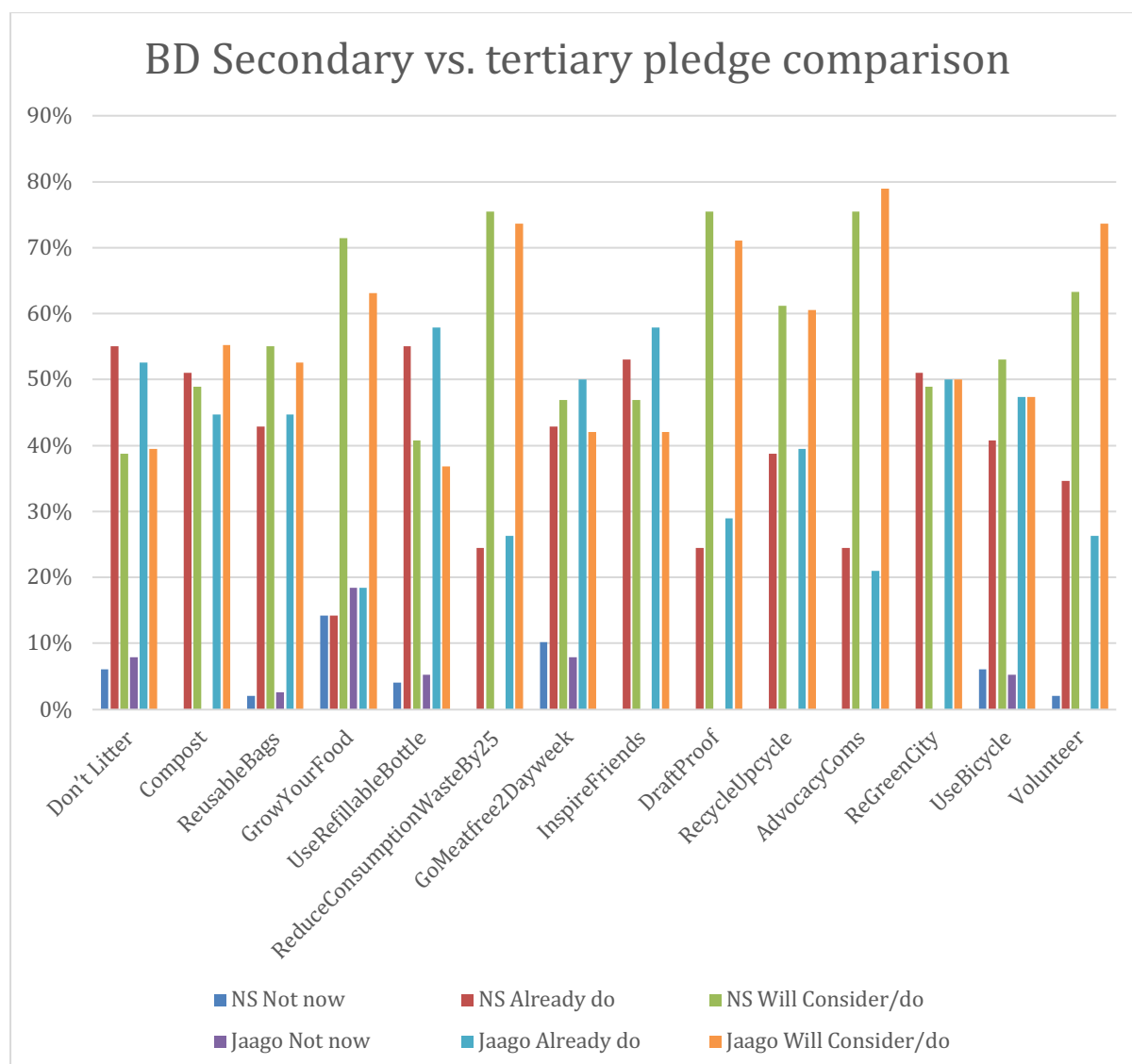


Figure 143 - BD Secondary vs. Tertiary pledge comparison

Comparing the two Bangladesh pledge results<sup>98</sup> (Figure 143) showed a remarkable consistency; as before, participants were generally already doing smaller behaviours (*not littering, re-usable bags/ bottles*), not doing larger behaviours (*local food growing, reducing meat consumption*), but made commitments to attempt the latter. The consistency across environmental knowledge<sup>99</sup> suggests these behaviours are fairly well known across a wide audience. While the previous limitations of lacking a post-intervention evaluation survey to check the commitments still apply, the very act of commitment-making itself can positively influence environmental behaviour (Jackson 2005), justifying the chosen approach.<sup>100</sup>

<sup>98</sup> Both results were normalised to indicate percentage preference from their respondents for comparison purposes.

<sup>99</sup> The North South students had a much higher environmental knowledge than the Jaago / VFB staff.

<sup>100</sup> The research on commitment-making in behaviour change is generally conducted in Western contexts (Jackson 2005) therefore further research in this non-Western context would address this important gap.

### 6.3.1.4.3 China - Zhejiang University of Media and Communications Exhibition

*June 10th-18th 2018, ZUMC Central library foyer, Hangzhou*

This exhibition was organised through local student volunteers, following workshops that were held in the previous year, to showcase these photo-stories and to trial a first China-site exhibition (Figure 144-5). Following the most recent Melbourne exhibition in Docklands Library, it was multi-sited, including photo-stories from Dhaka and Beijing without drawing explicit relations between the sites. Due to time and communication constraints attendance evaluation was not collected, however the local partner staff contact provided positive feedback regarding student engagement with the exhibition.



*Figure 144 - ZUMC Exhibition main space*



*Figure 145 - ZUMC Exhibition panel*

### 6.3.1.4.4 Discussion

Compared with the Melbourne-based exhibitions I had organised, these overseas exhibitions, particularly the Bangladeshi ones, had far greater audience engagement – considering factors such as – 1) much higher online pledge take up, 2) high reported audience satisfactions (4.5/5 average on Bangladesh surveys), 3) photo documentation, 4) feedback from partner organisations. This strongly affirmed the importance of local ownership to photovoice exhibitions – where the participant photographers whose work was exhibited were part of the same community in which it was held.

### 6.3.1.5 Learnings from exhibitions

The evolution of the exhibitions showed the development of public-scale photo-story audience engagement through the project. In Melbourne I used the first exhibition to develop and test a paired photo-story format in a community space, and in the second exhibition extended this format into a larger dedicated space, while experimenting in gathering audience engagement data. The latter affirmed the importance of text to photo-story engagement, the importance of emotion to impact, and showed the limitations of the paired photo-story approach in engaging viewers. These limitations inspired me to focus on engaging with environmental behaviour directly through online pledges with the third exhibition, which returned to a community venue with a simplified single-panel photo-story format. Despite minimal engagement due to lack of local ownership, the online pledge format provided a new means of engaging with environmental behaviour, and a key asset to multi-sited photovoice. Finally, the three overseas exhibitions demonstrated the importance of local ownership by handing over exhibition design to the participants themselves, which proved very successful for audience engagement.

In sum, the exhibitions were crucial for providing spaces for public engagement of the photo-stories, created through the continual adapting of participatory audience-engagement methods. In this way they provided insight into which audience-engagement conditions contributed to influencing environmental behaviour change and how these approaches may function. They also showed the limitations of the public engagement format for a multi-sited photovoice – as the latter may present challenges for local ownership if not already designed into the exhibition, as well as potentially overwhelming the viewer with too much information. Specifically, these gaps led me to explore photo-story engagement in a more intimate, one-on-one approach, which I discuss next.

## 6.3.2 Photo action Interviews

I developed the *photo action interview* method in response to the limitations of public-scale exhibitions' audience engagement, to provide deeper, more flexible and more individualised participant engagement around specific environmental behaviour. Because of this focus and depth, I sought to engage people with specific environmental interests through an interview format. Photo-interviewing is a form of photo-elicitation involving dialogical engagement with photographs that can provide a deeper response than photo-feedback alone (Dempsey & Tucker, 1991); I adapted methods I had developed through the workshops and exhibitions to explore this at the Melbourne site during site-cycles 9 and 13.

### 6.3.2.1 Interview process

As the previous engagements had been focused on participants without any specific environmental attitudes, with a balance between the *Feel, Think, Act* components, I now wanted to specifically emphasise and explore the behavioural '*Act*' part. I first trialled interviews at Monash Student Association (MSA), at Monash Clayton Campus in February 2018 (n=15, Figure 146) followed by two rounds at the Sustainable Living Festival (SLF), Birrarung Marr in February 2018 and February 2019 (n=48, n=28, Figure 147, Figure 148). I chose the latter as the main interview site as it provided abundant engagement opportunities with environmentally-minded people.



Figure 146 - Interviews from Monash Student Association, 2018

The 2018 interview format (Appendix E4) followed the *Think, Feel, Act* framework,<sup>101</sup> extending it to include additional questions on *barriers, support* and *timing* towards environmental behaviour, which are key behaviour change influencers (McKenzie-Mohr 2011). In 2019 I adapted the process to include firstly a message for the photo-story creator as a more flexible version of the photo-pen-pals multi-sited connection method (Appendix E4). Secondly, after the interviews I took a photographic portrait of participants together with their hand-made environmental behaviour pledge on a whiteboard. I sent this photo-portrait directly to the participant as a personalised reminder of their behaviour – as public commitments and personalisation may provide greater behaviour change potential (Moore 2012).



Figure 147 - Interviewing on community climate stall, SLF 2018



Figure 148- Environmental behaviour pledges, SLF 2019

<sup>101</sup> Given feedback from the Bangladesh workshops regarding the number of emotions being potentially confusing, I reduced the emotions set in the Melbourne interviews (Appendix E5).

### 6.3.2.2 Results and discussion

Through the interviews I collected extensive data on the participants' emotional and cognitive engagement with the photo-stories, and potential environmental behaviours, a small selection of which I discuss below.

#### 6.3.2.2.1 Australia emotion comparison

Regarding participants emotional responses to photo-stories, there was consistency between the general (MSA) and environmentally-engaged (SLF) participants, with *Admiration*, *Interest*, *Disgust* and *Sadness* being the average top emotions in consecutive order (Figure 216, Appendix E5). The only major differences were *Disgust* (MSA=16%, SLF=7%) and *Pleasure* (MSA=0%, SLF=8%). This may suggest the environmentally-engaged audience had a slight bias towards minimising the negative and maximising the positive for environmentally-themed photo-stories, being an area of pre-existing interest.

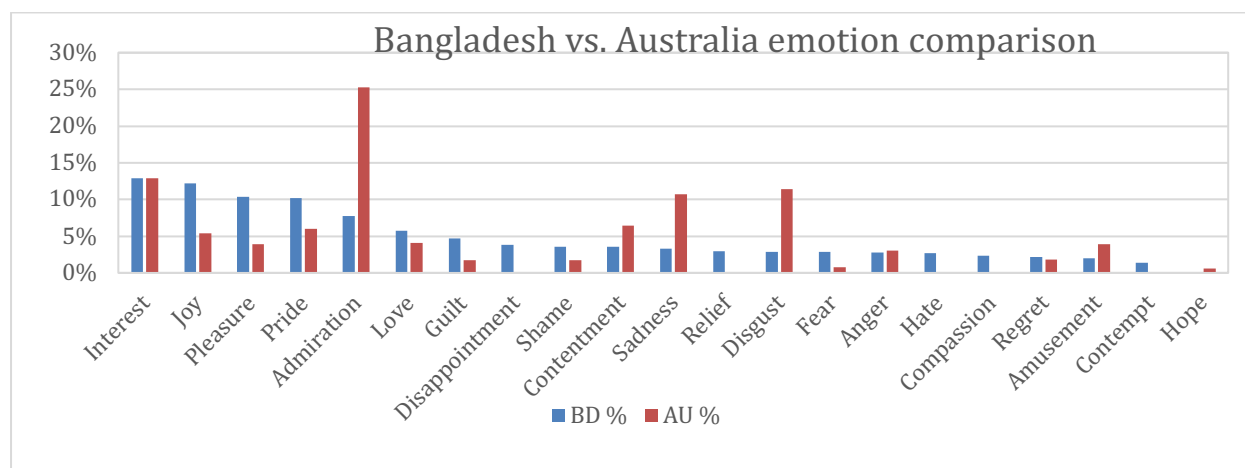


Figure 149 - Bangladesh vs. Australia emotion comparison

#### 6.3.2.2.2 Australia-Bangladesh emotional comparison

In comparison to Bangladesh-only photo-responses there was a substantial emotion response variance between Australia-Bangladesh (Figure 149), however the overall balance of positive/negative emotions were virtually identical (BD=69%/31%, AU=70%/30%), suggesting that the cultural background/site has little effect on the overall emotional balance of the photo-story engagement. Furthermore, both are similar to the second Australia exhibition collective emotional response (65%/35%), suggesting that the actual mode of participatory photo-story engagement (exhibition, workshop, interview) has little effect on this emotion balance – rather it may be simply the effect of the effective engagement properties of the photo-stories themselves.

### 6.3.2.2.3 Photo-story selection

Regarding photo-story selection (Figure 150), Bangladeshi photo-stories were consistently more popular at both Bangladesh (40%) and Melbourne (55%) sites, overall forming 50% of selections, followed by Chinese (34%), then Australian (16%), supporting the MADA exhibition findings and suggesting increased engagement from the more creative photo-stories generally found from the China and Bangladesh sites.<sup>102</sup> When individual photos selection is considered, there also seemed a stronger preference for choosing photos from a different site (Appendix E5), which may be curiosity across difference or the ‘exotic’.

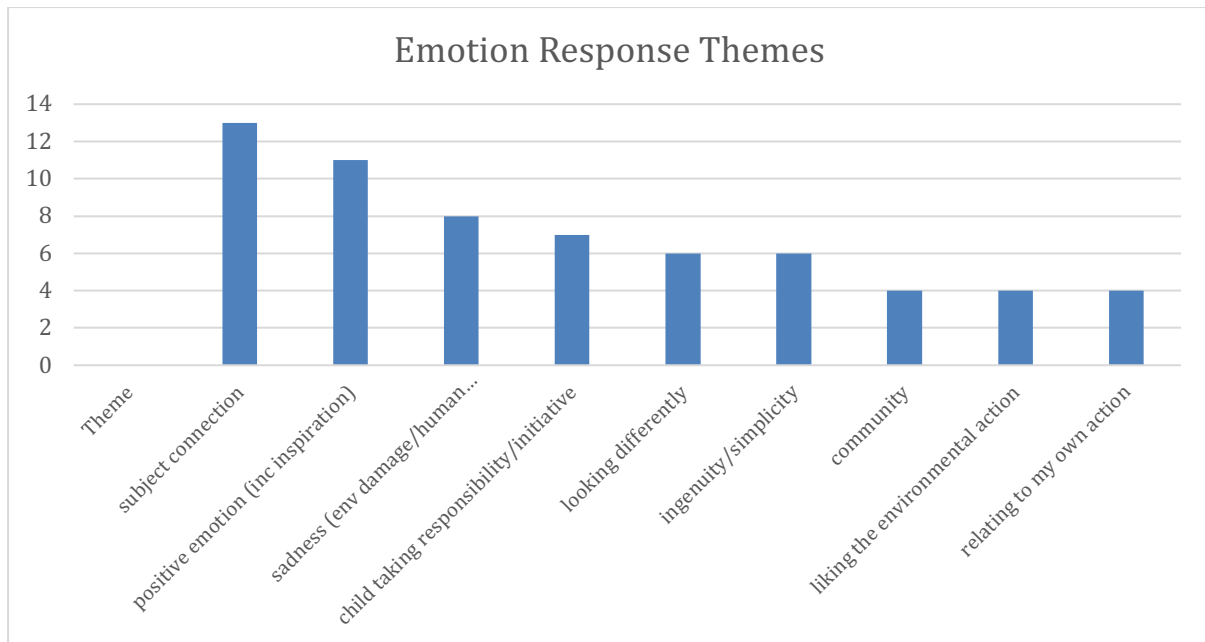


Figure 150- Photo-selection by country

### 6.3.2.2.4 Emotional response themes

The interviews also provided participants opportunities to elaborate on their selected emotions. I open coded their responses into 42 different topics, then aggregated these into 17 themes. The top 9 themes are listed in (Figure 151). Connection with the photo-story subject was the most common and confirmed the power of the photo-stories in eliciting *empathetic* responses. Both positive and negative emotions were also spoken about – with *inspiration* the most common theme in the former, and *sadness* over environmental damage or human selfishness in the latter.

<sup>102</sup> This difference was most likely due to the Australia photo-stories selections used in the photo responses being submission only and not benefiting from the ideation practices from the subsequent Bangladesh photovoice workshops.



*Figure 151 - Interview response emotion themes*

Together these represent both the *hope* and *fear* that are seen in conventional environmental photography, discussed in Chapter 2 – however crucially in this participatory context they have a locally grounded photo-story behind these emotions. ‘*Looking differently*’ was another core theme that spoke to the photo-story’s power of provoking different ways of seeing. I next consider two examples, with participant-selected photos-story above and interview response below.

#### 6.3.2.2.4.1 Boy with golden stick and hope



*The Boy with Golden Stick and Hope: Playing crickets doesn’t need good bats, stumps, gloves. You need eyes full of hope. Meet Saddam, a 7 years’ young boy migrated from Bagerhat the most vulnerable area to climate change. He wants to be then next cricket star of Bangladesh. (photographer, Dhaka, Bangladesh)*

*"It reminds me of memories of playing with children in India... we have so much crazy technology given to children here to keep them busy... supporting a you must 'have it to be happy' culture, creating a consumerist worldview early on.... in contrast to kids in Philippines, Nepal etc. - who are just playing with the simple things around them, playing together, in their community... in the West we have tendency to see people there as either victims or beneficiaries - instead of what we can learn from them. I admire their creativity in contrast to where we have lost this in the West, of making do with what you have, local ingenuity, and connection to our natural environment." (responder, Melbourne, Australia)*

Here the interviewee connects the positive emotion to the hope of reframing outmoded neo-colonial visual relationships and recovering lost knowledge. As discussed in Chapter 2, being cognisant of such viewing relations is crucial in a multi-sited inquiry which engages across sites with contrasting colonial histories to avoid unconsciously reproducing neo-colonial ways of seeing across difference (Manzo 2008; Said 2014). However critical awareness alone is insufficient – rather it is an ethical responsibility to actively reframe and develop positive, strength-based ways of seeing, of which multi-sited photovoice is one pathway.

#### 6.3.2.2.4.2 Making tofu



Two old people insist on making tofu themselves. They think that the waste produced by the tofu produced by the factor can not be used effectively for two times. They use filtered water to clean the house and water the plants. The waste material can be made into other food. Each time they collect the waste from making tofu and develop a new two way of using it. (photographer, Hangzhou, China)

*"It's difficult to make tofu, it's inspiring me as I had these ideas previously to do this on my own, and learn... seeing the photos, inspires me to do it, but I feel guilty because I'm not doing it." (responder, Melbourne, Australia)*

This response gives insight into the complexity of environmental behaviour change and the challenges of influencing it visually. The interviewee feels inspiration from seeing the tofu-making photographs, but guilt that she isn't actually doing it – showing one potential complex relationship between these positive and negative emotions in the environmental behaviour.

This is just one relationship however; the interviews revealed a wide range of different emotions being present, which complicates any ‘one-size fits all’ approach to behaviour change – rather it highlights the strength of this deeper photo-elicitation method to explore the emotional dimensions of the photo-stories and their relationships to environmental behaviour.

### 6.3.2.2.5 *Post-interview engagement*

To build on the limited evaluation of 2018 interviews, I sent a follow-up online evaluation after the 2019 interviews, with 17% response rate.<sup>103</sup> Results showed all the respondents completing their pledged environmental actions, and on average rating the interviews, the photographs, and their memory of the experience as very high (Appendix E4). As one wrote regarding the interview in general and the photographic portrait in particular – “*It reinforced my [environmental action] commitment and I look at the photo occasionally as a witness*” – demonstrating the ability of the personalised photographic response to influence environmental behaviours, long after the actual interview. Furthermore, most of the respondents reported the interview influencing their environmental behaviours in *unplanned* ways, implying this type of intervention may influence behaviour change beyond the scope of what is being specifically measured. This crucial insight underscores the complex, non-linear nature of influencing environmental behaviour change and the limitations on relying on measuring approaches, even for participant-designed behaviours.

### 6.3.2.3 Reflections on interview methods

The strengths of the *photo action interview* approach came through facilitating a deeper engagement with the photo-stories, allowing more of an emergent flow between feelings, thoughts, and actions than was possible in the standard workshop context. The process also added elements specifically addressing the psychological aspects of environmental behaviour such as *barriers*, *support* and *timing*. Considering photo-story selection adds to previous evidence suggesting that both visual cultural difference, and creative storytelling are particularly engaging, with a similar preference for positive emotions found in previous exhibitions and across sites. When participants elaborated on their emotions, their key themes included connecting with the photo-story subject, hopes and fears, and opening up different ways of seeing. The interview analysis shares similar limitations regarding generalisability as with the workshops. I now discuss the last audience engagement process I developed, which explored environmental behaviour change through local group projects.

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<sup>103</sup> This figure is comparable to other observed online response rates; however many variables such as length, timing and incentives affect this (Deutschens et al. 2004), factors which would need to be examined more closely in future research.

### 6.3.3 Group Action Projects

Over the previous project rounds, I have explored adapted photovoice processes' influence on individual environmental behaviours, which has tended to be indirect. The main exception, environmental action pledges, still mostly relied on inferring environmental behaviour from self-reported statements, which can be problematic (Moore 2012). In addition, these behaviours have generally been individual-focussed, and evidence suggests *collective* or *collaborative* behaviours can have particular advantages in sustaining behaviour change, due to factors such as influence on social norms and social support (McKenzie-Mohr 2011). The individual behavioural approach also emphasises *individual responsibility* which also tends to perpetuate Western individual cultural values (Manzo 2010) – a contrast to the importance of *collective responsibility* which has emerged frequently through the photo-stories (Chapter 5). Thus for the final stage of the workshops I sought to close this gap by linking the photovoice processes to direct collective environmental actions, in the form of *Group Action Projects (GAP)*.

#### 6.3.3.1 GAP processes

I ran the GAP processes in Dhaka as the second half of the peer-to-peer stage (site-cycle 15), following the 'photo-pen-pal' stages (site-cycle 10-11), with the same primary and secondary participants at the two Jaago schools in Dhaka. After participants completed their photo-stories, I added additional ideation processes to support them using photo-stories to generate and select their favourite ideas regarding collective environmental actions they could implement locally. These processes included photo-story ideation, community mapping, group action idea mapping, idea ranking and selection, action group formation and implementation which are listed in full in Appendix E6. In total six workshops were run as part of the program.



Figure 152 - Community mapping

I had used most of these design methods already in the project, drawn from either existing photovoice methods, design literature (Hanington and Martin 2012), or my own practice-based experience. Community mapping represents a wide range of participatory processes, aimed at devolving the institutional powers vested in maps by creating locally grounded alternatives – such as parish mapping, green maps, artistic maps, open source mapping and cycle mapping (Perkins 2007). It is relatively new for this to be combined with photovoice (Duxbury, Garrett-Petts, & MacLennan, 2015; Zwerneman, 2015). I constructed neighbourhood-scaled maps of the local environment around the participants' school through Google maps, distributing them to the students who I invited to draw places of meaning on them, together with any present or future environmental ideas that emerged from their previous photovoice process in order to spatialise them.



Figure 153 - Project theme ideation

#### 6.3.3.1.1 Results and discussion

The students were generally highly motivated through the process, and were receptive to the new activities. Dhaka project interns took over the workshop facilitation when I left the country, co-designing the workshops with my remote support, and supported by the local Jaago mentor team during the remaining workshops. Six groups each ran projects (three per school), themes which included various combinations of tree planting, litter clean-up, or environmental education. Project descriptions are listed in brief in Table 23, and full in Appendix E6.

Table 23 - GAP summaries and outputs

School	Project Name	Brief Project Description	Project outputs
Rayer Bazaar	Dustbin (Educational)	This group wrote down information's about how to use dustbins and waste separation (plastic, organic waste and hazardous waste) on chart papers and went to 3/4 schools and did a presentation for the students there.	How many dustbins given-16  Presentations were received positively. The student and teachers of the schools were really appreciative about it and proud of young people working on spreading such information.
Rayer Bazaar	Tree plantation and awareness	The group of students bought plants from a nursery and distributed them to households of the locality. Before handing over the plants they have spoken to the household members present about the importance of tree plantation in a form of informal presentation. Providing them with a plant would work as good rapport building between the students and the household members and also encourage them to add more plants to their collection.	How many households engaged- 5 houses(total 60 rooms) and 20 shops  How many plants given – 100 plants, 5 chart papers  People appreciated the initiative taken by the students very much and showed interest and understanding towards the cause. They also have said they will keep on getting more plants for themselves.
Rayer Bazaar	Dustbin (Physical)	This group went to other schools and with the permission of the authorities made a group of 50 other school students and one particular day they went out on the streets of their localities and started cleaning the streets. To the people gathering around they spoke about how and why everybody should keep the roads clean.	Even though 1/2 people showed annoyance towards school students cleaning the road, majority praised them so much that it did not matter at all. It was mostly because people of such young age came out on streets showing the elders how to keep the environment clean. People appreciated their work very much!
Korail	Spread awareness about limited resources of gas, electricity and water.	the group of students made chart papers with the information they were to talk about and made leaflets to distribute. their target area was market places where there were shops, restaurants etc. they approached such shops and spoke to the owners as well as people around and the customers about how we should not waste gas, electricity and water.	How many papers given out?- 100 Appx  How many people engaged with?-30appx  People appreciate young people spreading such knowledge on environment. Their initiative was received positively.
Korail	Awareness video (tree plantation)	This group made a short video on the importance of tree plantation and why we should reduce deforestation.	Video link – <a href="https://drive.google.com/drive/u/0/folders/1TwuBpPL-9eui7fBsJXgAXVkfDDue7mPh">https://drive.google.com/drive/u/0/folders/1TwuBpPL-9eui7fBsJXgAXVkfDDue7mPh</a>
Korail	Dustbin distribution and road clean and awareness	This group worked on making people aware about using dustbin. They cleaned few roads near their school and home and after doing so they left a dustbin in each corner of the roads and also distributed leaflets with slogans about keeping the roads clean and using the dustbins.	Dustbin-10 Broom-5 Dustpan – 5 Bin bag-5 Duct tape, gloves and papers.

The Dhaka interns completed the above table, which I have intentionally left in their own words to allow their voices direct expression.

The community mapping process formed a useful spatial bridge between the participants' *individual* photo-stories and experiences of space, and the *collective* spaces for engagement of the group action projects. The participants came up with voluminous ideas for potential projects and it was challenging for mentors to guide them to sort and commit to ideas that were actually feasible, and teams they would work in. However, once this bottleneck was passed the group projects progressed relatively smoothly, with the mentors' group support being a crucial enabler.

The key learning, opportunity, and risk, lay with me physically leaving Bangladesh and delegating the workshop design and facilitation to the two local interns, while the latter delegated student group support to the mentors. However, despite their previous apprehension, the interns generally managed this well, with my absence also providing them with greater scope for contribution. This has been an unexpected contribution of the multi-sited dimension – the tendency for regular organisation and coordination between geographically separated sites invites independence, delegation and distribution of control, which tend to be the conditions that prolong project longevity (Kemmis, McTaggart, and Nixon 2013; Kondon, Pain, and Kesby 2007), and with that the ability to keep affecting environmental behaviour change.



Figure 154 - Exhibition presentation, Rayer Bazar

There were some adverse effects; the workshop series timeframe stretched out as the interns' prioritised their own time availability. A critical enabling factor was inviting the local partner Jaago to source the mentors from their own volunteers, which meant they shared not only

common social networks (a key success factor) but also an interest in the students' success that matched with the project outcomes, ensuring a good level of support through the workshop series.

The second key learning was that the transition from *individual* photo-story based expression and ideation to *collective* environmental projects was not only a feasible but effective way to influence local environmental behaviour through specifically measurable results, such as trees given out, or people engaged with (Figure 155, Figure 156). However, like the interviews, often the unexpected results were most striking. A youth mentor reports one such example regarding the student group who were cleaning up rubbish on a public road:

*A policeman was passing by during their work. Seeing them, he stopped and got off his bike and saluted them. It almost brought me in tears while listening to them describing the moment.*

Here it is striking to see the unexpected positive impact that public, collective environmental behaviours can have to local relationships.

Thirdly I discerned that the combination of the GAP process with a previous personal dialogical component – the *photo-pen-pals* – increased motivation for the participating students, which flowed into the action projects and environmental behaviour change. This suggests multi-sited exchange components should be incorporated into future project design where possible.



Figure 155 - Jaago Rayer Bazaar Group 2 Tree project



Figure 156 - Jaago Rayer Bazaar Group 3 Street clean project

### 6.3.4 *Limitations of realist-empirical analysis*

Through the lens of this realist-empirical approach I have approached the design process iterations as trialling different participatory practices to influence environmental behaviour through photo-story engagement. This may include: inferring behaviour from impact or emotional engagement, specific behavioural pledges in the public exhibitions or interviews, considering its relationship in the *think/feel/action* framework within workshops, environmental behaviour-focused one-on-one interview engagement, to the direct approach of facilitating environmental behaviour through group action projects.

However, the same constraints with the empirical approach as identified in Chapter 5 are present here – namely empirical issues regarding limitations in the ‘completeness’ of the various audience data-sets, as well as epistemological issues regarding the challenge of defining and measuring objective ‘environmental behaviours’ themselves. Thus, I consider briefly now the relational analysis as complementary approach.

## 6.4 Relational analysis

To explore a relational approach here invites a shift from seeing environmental behaviour as a *vertical* arrangement of the discrete human subject acting on a passive separate lifeworld, to a *horizontal* configuration where the ‘behaviour’ itself can be seen as reconfigurations of agency and mutual becoming. These emerge through the ‘entanglement’ between different actors in their shared assemblage-network (Hultman and Lenz Taguchi 2010). This allows for the discernment of relational nuances that may be missed when viewing these practices empirically.

It is important to avoid anthropomorphising here – recognising that this kind of agency is not the same kind as traditionally attributed exclusively to humans – but rather recognising that all agency has collective origins (Bennet 2005). The orientating questions asked by (Gibson-Graham 2008, 3) are useful here – ‘*How can our work open up possibilities? What kind of world do we want to participate in building?*’. In this brief section I explore how the evolution of photo-story engagement practices have opened up possibilities around influencing environment behaviour, focussing specifically on the exhibition and interview methods.

## 6.4.1 Exhibitions

### 6.4.1.1 Portraits of Change I exhibition

This exhibition debuted the dual panel photo-story arrangement, which can be seen relationally as a fused Bangladesh-Australia photo-story assemblage. Through its visual and semiotic density, this assemblage may obscure both its component Australia and Bangladesh photo-stories and their local production sites. The viewer meets it bringing their own relations with the human, material, and natural actors, together with the surrounding library context.<sup>104</sup> The resulting composite assemblage could be represented schematically by Figure 157.<sup>105</sup>

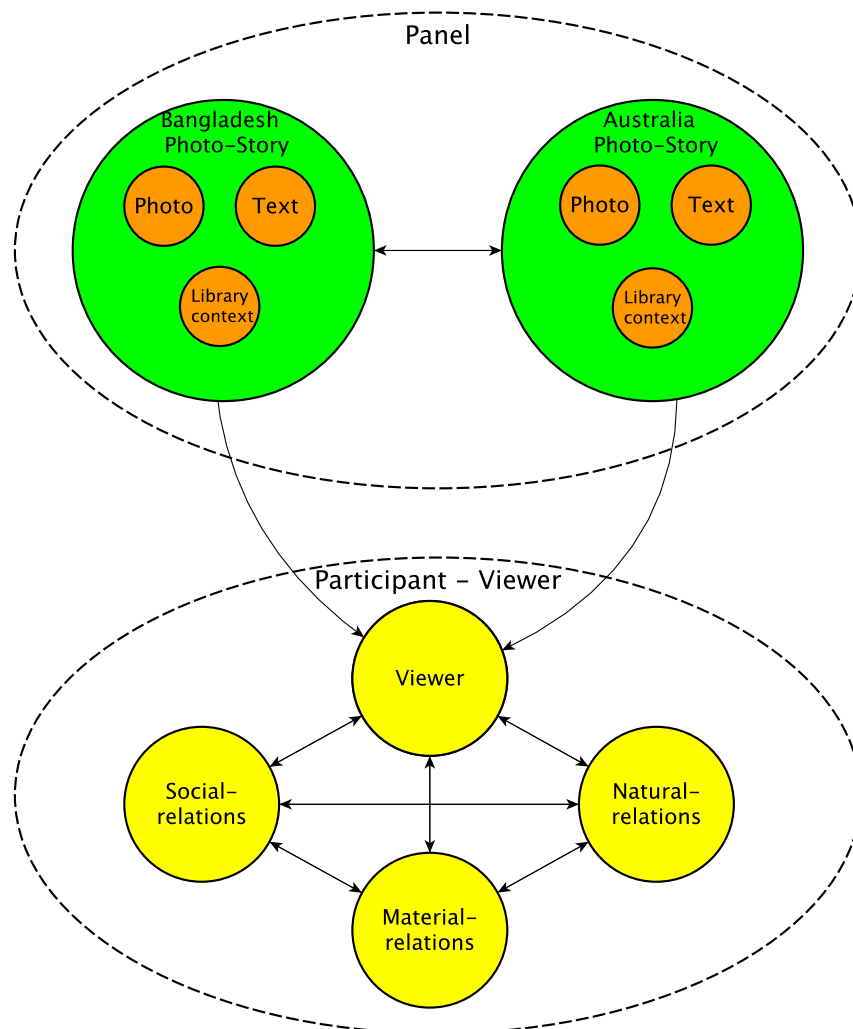


Figure 157 - Portraits of Change I network map

<sup>104</sup> I use 'material' in this section to mean non-human and non-living actors, and 'natural' to mean non-human, living actors, who are connected via actor networks.

<sup>105</sup> A note about the network diagrams - these are highly simplified, static visual projections, or slices through the complex and dynamic network topologies showing only the selected actors, rather than any attempt at full visualisations or mappings.

Viewed horizontally, environmental behaviour may arise from shifts in agency in any of the viewer's *social*, *material* or *natural* relations following from engagement with the panels. Some examples could be explored via various potential audience-engagement scenarios. For instance, after engaging with the exhibition's photo-stories, the viewer may be more likely to notice that her clothing is made in Bangladesh (*material-relations*), or that her family never seem to talk about wastage (*social-relations*), or that her local park is actually quite clean compared with the photo-stories from Bangladesh (*nature-relations*). Any of these kinds of awareness may result in subtle shifts in these actor-network relations that may have environmental outcomes – such as adoption of sustainable purchasing or waste behaviours.<sup>106</sup> Although this may not be directly 'measurable' during, or even subsequent to the exhibiting time, these subtle reconfigurations may have material impacts as they 'congeal' over time with repeated performance (Butler 2002).

Another way of considering this is through the ANT concept of *translation*, which describes the process of (re)alignment of the interests of a diverse set of actors in a network (Latour and Porter 1996). Visiting the exhibition can be seen as an act of translation, with the viewers engagement with the panels contributing to subtle re-alignments of the diverse human and non-human actors in the library in relation to its environmental themes. The physical constraints of the panels being small amongst the busy library context served as barriers towards this translation.

### 6.4.1.2 Portraits of Change II exhibition

I approached analysing this exhibition as extending this viewer-panel assemblage actor-network dynamics with the addition of more specific interactivity. The latter extends the engagement to flow both ways through the viewers' material participation with the photo-stories themselves – by leaving their physical marks according to emotion, impact and story (Figure 52). Firstly, the large space and format of the panels can be seen as assisting in the latter *translation* process by lowering barriers to engagement identified in the first exhibition.

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<sup>106</sup> The word 'may' is crucial here - there is no certainty that any of these shifts will actually occur. But the exhibition's intervention in the network makes this more likely.

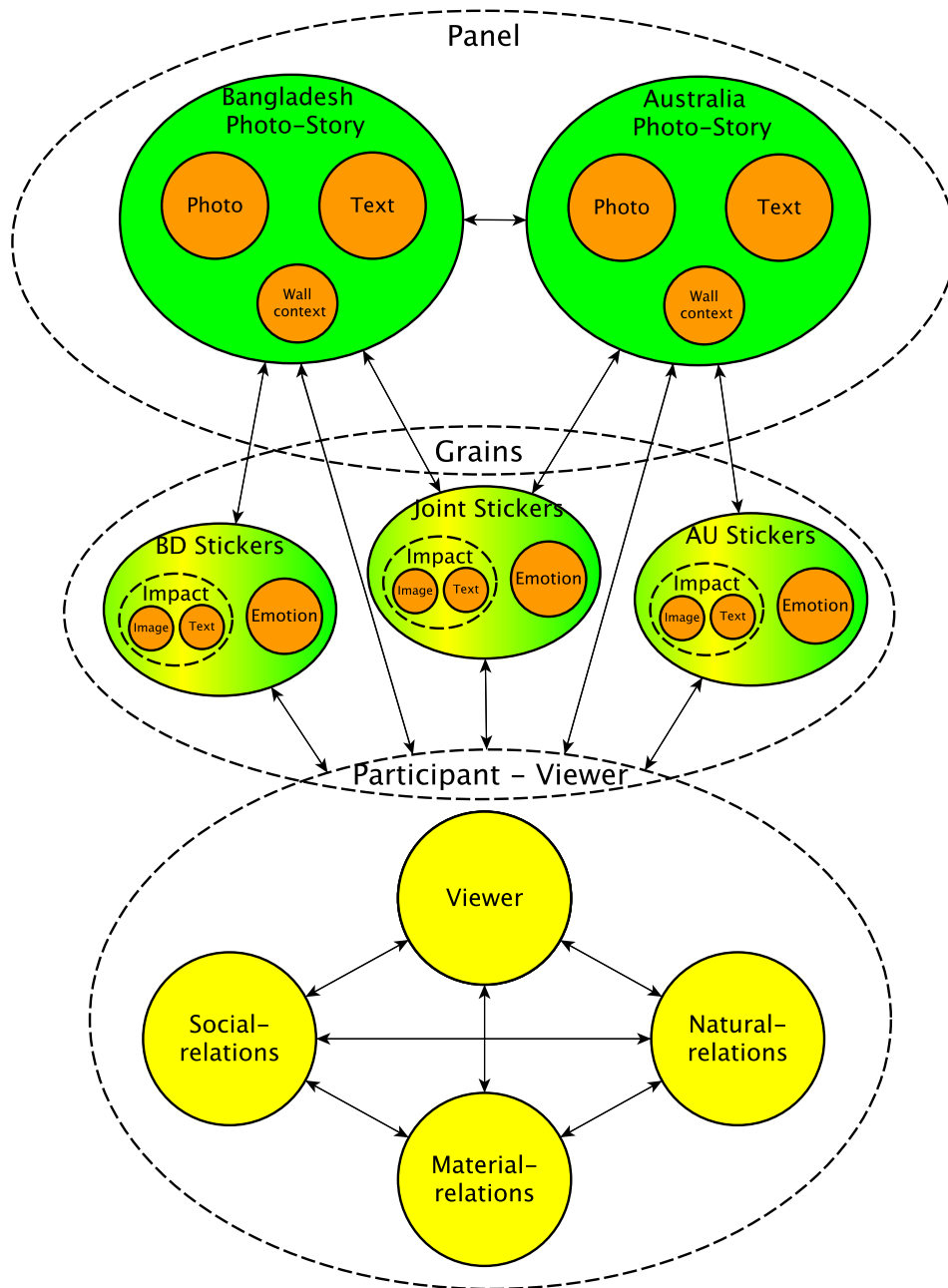


Figure 158 - Portraits of Change II network map

Secondly, it is useful here to consider Law and Urry's (2004) application of complexity theory to relational ontologies, where small changes in a system or network's initial conditions can create larger non-linear outcomes through non-deterministic processes. Allowing participants to mark the panels subtly via the stickers can then be seen as introducing small 'grains' in the actor-network system that may iteratively produce further unpredictable changes across the life span of the exhibition. The interactive dimensions also helps nudge the human actor briefly from a passive receptive 'viewer' role towards an active engagement 'participant' role. These relationships are visualised in (Figure 158).

In one scenario illustrating this, a group of friends stick multiple impact stickers onto one panel, with their act of sticking or its material trace subsequently attracting other participants to view this panel, with both of these behaviours influenced by social conformity effects (Turner 1991). The spatial context of the corridor may have less contextual distraction than the previous library exhibition, yet may have more such conformity influences – either through its spatial arrangements or sociality of the human actors.<sup>107</sup> As the panels invite the participants to actively choose an emotion for a photo-story, this may trigger a participant to connect with their own emotional dimensions of the relevant social or natural experience, inviting the latter into the current interaction. A female placing a sticker on the *Collection* panel might wonder why there are five times more male stickers than hers on this panel, or vice-versa, inviting gendered dimensions into the experience.

These complex reciprocal interactions iteratively add miniature granular perturbances that deepen the participation space across the actor-network. Thinking with this kind of relational complexity lens means eschewing trying to *predict* or *measure* discrete environmental behavioural impacts of the exhibition – rather it encourages us to *model* its behaviour and potential relational outcomes (Law and Urry 2004). From this perspective environmental behaviour could emerge through any of a myriad of aligned network configurations between the viewer, their own natural-material networks, and the photo-story(s).

### 6.4.1.3 Portraits of Change III exhibition

This final exhibition continues the same basic network dynamics of the first exhibition, with modifications due the single panel format, three-site coverage, and online engagement. The shift to a single panel format returned the individual photo-stories to standing on their own, promoting a lower level of *granularity* or network complexity than with the enclosed dual panels (Sarker, Sarker, and Sidorova 2006). By also adding China as a third site, the granularity is expanded beyond the *Australia-Bangladesh* dialogue to a more complex *Australia-Bangladesh-China* multilogue. This recurring barriers to effective *translation* – with the photo-stories being often lost in the busy library environment – can be seen here as interference amongst similar levels of (competing) granularity, with the more complex multilogue granularity unfortunately making it more susceptible to this background noise.

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<sup>107</sup> The spatial reasons may be due to participant behaviours being easily observed in the wide open corridor, and the social reasons may be due to more homogenous and overlapping social networks in the university context compared to the library.

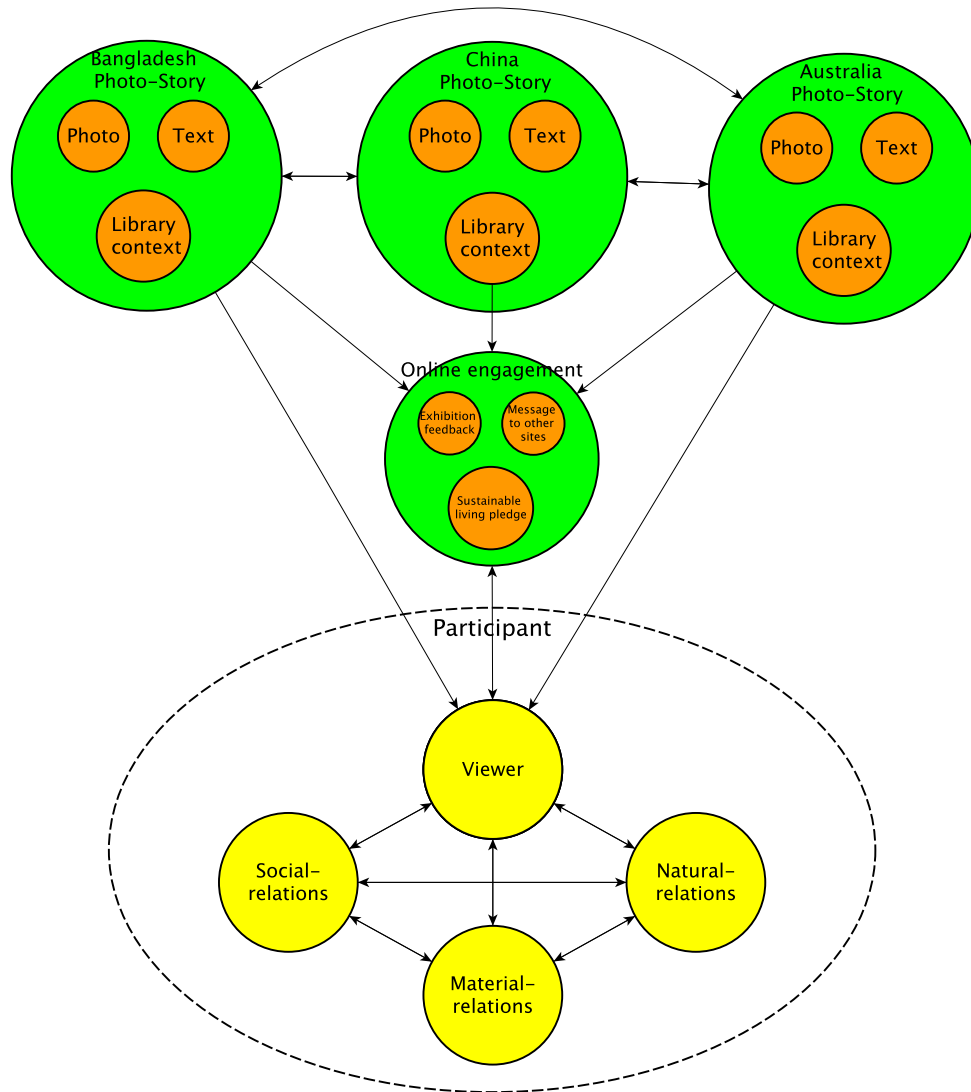


Figure 159 - Portraits of Change III network map

Adding the online environmental behaviour pledge component extended the interactivity initiated in the previous exhibition, prompting a deeper involvement from participants in directly requesting them to reflect on their past, present and future environmental behaviour as well as the exhibition's effectiveness. It is useful to use the ANT concept of *interessement* here which can provide a way to consider the success or failure of initiating change within a network. It is the second stage of *translation* and involves convincing actors in the network that the initiator's interests are their own, and if successful, 'enrolment' occurs, where actors align themselves to the network (Mähring, et al. 2004; Callon 1984). Unfortunately during the exhibition the potential of human actors to be enrolled through taking the online pledge was rarely met, as the *interessement* was largely unsuccessful; the appeals to take the pledge on the basis of both intrinsic value ('reduce your environmental footprint'), and extrinsic rewards ('take the pledge and win this huge column of jelly beans') only resulted in six pledges.

Thus this more specific and ambitious online participation was actually less successful than the subtle iterative layering of lower granularity sticker traces in the previous exhibition, a reminder that participation can be challenging to design for, yet may emerge in unexpected ways.

Although such participation was largely unsuccessful in this exhibition, by zooming out to program-level to take in a higher level of granularity – including the participatory processes ran in the subsequent site-cycles, we can see that the process of designing the pledge actually helped to develop future participatory processes, and thus the efforts were not in vain. I consider the photo action interviews as a key example of this below.

### 6.4.2 *Photo action interviews*

Examining these interviews relationally shows a complex actor-network (Figure 160) that emerges through the interview process. The three main actors are the interviewer, the interviewee and the photo-story collection, with the whiteboard, transcribing tablet, and pledge photograph being enrolled by the former. This *enrolment* through the interview process can be seen as a form of ‘*materialising*’ (Allen 2011) the *latent* discursive actors – such as the ‘participant pledge’ and ‘message to photographer’ which are latent in the interviewee actor, and the ‘imagined photographer’ – the photo-story’s creator – who is latent in the photo-story. The *materialising* process can be seen as transforming these latent actors into physical ‘*boundary objects*’ (Star and Griesemer 1989) that have their own independent agency to *enrol* past or future participants in the environmental engagement at the site through the photo-interview’s participatory processes.

This process can be also viewed as an example of Barad’s (2007) *intra-activity*, where the above actors assist each other in ‘becoming together’. In this process, agency emerges through the activity itself and is distributed across the network, rather than residing solely in the active human interviewer who ‘extracts data’ from the other actors through deploying the participatory methods. Rather the latter methods emerge themselves through the interaction itself, with these three actors coming into relationship to create the ‘data’. The agency of this data lies in it being able to move, flow, interact and transform with other actors, rather than being collected and analysed discretely, just in relation to itself.

Viewing this in relation to environmental behaviour change here provides the perspective for the latter to emerge through a participant establishing a network involving themselves, the *photo-portrait-pledge* assemblage, and other friends. Here the pledge photo-visualisation can actually influence the friends to take a similar pledge themselves, and through this *enrolment*, the



## 6.5 Summary

This final results section has discussed how adapting photovoice audience engagement methods can influence environmental behaviour in a multi-sited context. The exhibitions tested out different forms of public engagement and participatory measurement with the photo-stories. Those I ran in Melbourne highlighted barriers to deeper engagement and participation, which were largely surpassed at the Bangladesh and China exhibitions through delegating to fully local ownership, and therefore participation. In contrast, interview methods allowed for deeper participant engagement and direct emphasis on influencing environmental behaviour through supporting participants to develop personal action commitments. Finally the group action projects demonstrated how multi-sited photovoice could be combined with other participatory processes such as community mapping to support and inspire larger scale, collaborative environmental behaviour change activities.

Through the empirical action-research I developed various measurement techniques for the material traces from the above audience engagement methods to determine the likelihood of influencing environmental behaviour. By experimenting with these measurement methods I generated new ways of engaging with the participants themselves, both immediately at the intervention site itself, and at later times (follow up surveys, environmental action pledges). This data inferred key insights about the varying potentials of the photovoice engagement method to influence environmental behaviour, although being spread thinly through the multi-sited approach can place limitations on their generalisability and requires further research.

In contrast, I then examined the photo-story audience engagement relationally, showing that the research activities themselves can be read as *constitutive* practices, which create new assemblages involving participants and their worlds. This necessitates a shift in researcher perspective from *data collection* to *modelling new ways of relating*, including emergent spaces for participation (Cameron, Manhood, and Pomfrett 2011), expanding prior notions of what environmental behaviour actually is.

Ultimately it has been through understanding the constraints and opportunities of both of these complementary approaches that I have been able to demonstrate the influence that these multi-sited photovoice methods have on environmental behaviour. Together they form the audience-engagement component of the *open photovoice* method, which I explicate further in the concluding chapter.



In this photo I can find the combination of nature and concrete. Two working women are taking rest under a tree, though the tree is not big enough to give them shadow but still they choose to sit under it. The yellow leaves indicate our ignorance towards the nature whereas the building seems quite beautiful. The picture makes me think that, it doesn't matter how civilised we become, we have to go back under the shelter of Mother Nature.

(photographer, Dhaka, Bangladesh)

*"I'm curious, I want to know more... there's a tension between the structures and the nature, sweeping nature away, but it's also protecting them. I can relate to the heat being here in Australia, it doesn't seem so far away... I want to decrease my own consumption, maybe even changing my job, to contribute more to the community."* (responder, Melbourne, Australia)

# Chapter 7 - Conclusions

## 7.1 Overview

Photography reflects the world back to us, and through each of these reflections being uniquely shaped via its creator's human eyes and hands, they collectively remind us that multiple worlds always lie outside our own perspective. But what does this mean when our entire planet, the very ground of all our human worlds, is at risk – what kinds of seeing do we need now? Having thrown myself into the journey of living this question over the last four years, I am convinced that the answer lies in nurturing this multiplicity – of both story-tellers, and story-listeners. In this concluding chapter I critically review this journey – where it has taken us, what questions are answered, what contributions have been made, and what questions and invitations remain.

On my action-research journey I have explored how adapting photovoice processes through participatory action research can help visualise and influence local environmental behaviour across multiple sites. Through this I sought to transform the way in which environmental behaviour change is visualised photographically. Instead of either consuming or producing the epic environmental visions of hope or fear of that we perpetually see on the big screens around us, or escaping these to support or facilitate micro-local photovoice responses, I have developed an alternative *open photovoice* method that facilitates the generation, connection and engagement of local stories across multiple sites. Instead of mainstream environmental photography's generic and stylised visual vocabulary, or the specialised local stories of conventional photovoice, I have developed a globally-informed, locally-inspired visual vocabulary of environmental behaviours. Finally, in the place of traditional photography and media's privileging of the 'outside expert view' (whether photographer or environmental scientist), or traditional photovoice's elevation of the 'local participant voice', I have emphasised the *open photovoice* methods themselves as 'connecters and enablers' between and amongst multiple sites.

In designing and implementing such an ambitious program I become aware – often painfully, and usually after the fact – of both its limitations, and my own as an action-researcher. By striving to be responsive to multiple sites and ways of seeing, both the research focus, and my own clarity, became disorientated at times by being pulled in multiple directions. By running so many participatory activities over such vast distances, I sacrificed deeper site-specific photo-story and workshop development, and methodological convergence, trading them for engagement breadth, photo-story cross-connections, and methodological divergence (the latter through a zealotry for rapid-prototyping methods). By expanding participation beyond the usual closed photovoice participant cohort to include volunteers, partner organisations and even non-human actors, I limited possibilities for deeper engagement with the participants in front of me. By expanding the catalysts for photo-story creation from beyond the local participants' own experience to include offsite participants' stories and worlds, I reduced the likelihood of experiencing a deeper, 'thicker' understanding of each site, its ways of seeing, being and doing. By opening up opportunities for inter-cultural empathy through participatory practice and experimenting with its influence on environmental behaviours through integrating behaviour change methods, I was inundated with a deluge of divergent empirical data which was challenging to converge back to the research foci. These tensions have all been surprising, creative and necessary compromises arising from the multi-sited commitment, with each forming sites that has driven further inquiry. But for now, I turn back to reflect on the journey.

The journey has taken me across 17 discrete participatory-action-research cycles spanning 4 years, where I partnered with 19 local organisations to run 80 workshops, 8 exhibitions, and 3 interview events across 4 separate sites spanning 3 countries. Over 700 participants attended workshops and collectively created over 500 photo-stories. Beyond these numbers the actual impacts and influence gets harder to discern empirically; this is where the relational perspective becomes a powerful lens to help us see the complex and diverse relationships and networks that both emerged, and were re-configured through these activities. These may be difficult or impossible to measure, but whose materialities, and ultimately influences, are undeniable through the practices themselves. I ultimately developed the three research orientations – *adapt*, *visualise* and *influence* – out of these practices, and I summarise and synthesise the learnings and contributions with respect to each in the sections that follow.

## 7.2 *Adapt* - design for photo-story creation

This strand formed the basis of the practice-based design research, and through it I addressed the first research question – ‘*How might we adapt photovoice across multiple-sites?*’ As the research unfolded on different scales through both the design-process level (e.g. workshops), and the design-product (e.g. photo-stories) level, I organised the analysis on differing spatial levels of engagement – *program*, *site*, and *partner*, and various temporal levels – *phase*, *cycle*, *workshop* – that served as different stages for action-reflection cycles as part of the PAR process.

### 7.2.1 *Program-level design*

I developed three related yet distinct methodological orientations – *create*, *reflect* and *engage* – which described the research’s broad operational themes, to bridge the space between the high-level research orientations and the low-level participant engagement methods. *Reflect* formed the planning, reflecting and structuring ‘home base’ of the project, *create* represented the photovoice workshops themselves, and *engage* represented the participatory spaces for photo-story audience engagement. Together these methodological orientations were essential to structure the creative practices that emerged as the multi-sited photovoice program evolved.

I used design figurations such as *meshworks/networks* (Ingold, 2016) and *programs/experiments* (Eriksen 2012) as approaches for reflecting on the photovoice adaptation processes. By consolidating these adaptations across all the site-cycles, I developed a multi-sited photovoice *minimum viable process* that contributed to participatory design through providing a basic model for running *open photovoice* across multiple sites.

### 7.2.2 *Site-level design*

At the site-level I grounded these high-level processes by co-designing them into specific, locally-responsive shapes through ongoing relationships with local partner organisations. Bangladesh had the most diverse partner organisations, and subsequently diverse *create* workshops, mainly due to developing a successful lead partner arrangement with [ICCCAD](#) that gave the most stable organisational base and with interns and volunteers providing valuable on-the-ground capacity and program feedback. Australia remained the *reflect* and *engage* base for most of the program, supporting the overseas fieldwork through both crowdfunding resourcing and interns who assisted in organisational structuring. China presented specific challenges due to constraints around community engagement, geographic spread and lack of lead partner, however this

encouraged specific workshop-level innovations such as *talk-show* and *excursion* in Beijing with partner [FoN](#). Through negotiating the above engagements, I developed an *emergent partnering model* that provides templates for a range of local partnering arrangements of varying complexity.

Although the action-research was initially orientated around *participatory design*, this evolved closer towards *design for participation* – designing participatory processes instead of involving participation in design – as the multi-sited context placed considerable constraints to formal participation beyond the workshop-level. From an analytic perspective, adopting an ANT orientation expanded considerations of participation to include partial processes which are continually present (Andersen, et al. 2015), between and amongst participants at each site, whether as workshop attendees, volunteers, interns, local partner staff or program supporters. On a practice-level there were many transformative co-design engagements throughout the program at both workshop and partner levels, the insights from which contribute to contemporary conversations in PD regarding participants/facilitator roles and collaboration formats (Dreessen and Schepers 2018; Light and Akama 2014; Wittmayer and Schöpke 2014).

### 7.2.3 Partner-level design

These site-level factors subsequently shaped the lowest ‘partner’ level where the photovoice workshops were actually run. I adapted two models of participant-photography – firstly for the primary and secondary students who photographed *within* the workshops themselves and, secondly, a more expansive option for the tertiary students to photograph *between* the workshops. There were strengths and weakness with both; the latter allowed more subject diversity, while the former reduced it; however, this constraint increased the depth of the photo-stories within core subject-themes such as *ground waste* and *plants*.

I demonstrated the importance of physical, embodied engagement for multi-sited photovoice through the unique *material* and *materialising* presence of the workshops. Firstly, the situated ideation processes and embodied engagement with the students through the collective and individual creative processes would have been impossible to reproduce online. Secondly, cameras had to be physically brought to many classes due to the lack of cameras access. Thirdly, the photovoice workshops’ unique spatial dynamics were essential to facilitate students’ creativity from site specific, place-based engagement.

Following the children around through the narrow streets in the Korail ‘slum’ in Dhaka with their ‘new’ cameras (Figure 161), I was moved at the reverence with which many treated these camera-phones which was the opposite of how they would be treated back home in Melbourne. Walking with them I felt my own senses expand beyond the camera in my hand.



Figure 161 - Photography in Korail

I made a key development in workshop design through opening up the initial photo-elicitation process to connect participants across sites through responding to each other's photo-stories – putting more emphasis on this multi-sited engagement as *generative* to the local photo-story creation processes themselves. Building on the initial free-form photo-elicitation prototyped in Hangzhou – which facilitated conversational and global *empathy* (Krzmaric 2015) – I then redesigned the elicitation processes to engage specifically with *Think*, *Feel*, and *Act* components, exploring more closely the influences of the cognitive, affective and behavioural dimensions of empathy on environmental engagement. However, fitting this in a busy 'classroom' style workshop environment was difficult, which led to me developing a one-on-one *photo-action interview* engagement method as a more dynamic, flexible 'narrow-band' alternative to the 'broad-scale' public exhibition and workshop formats, which ultimately lead to deeper responses than could be obtained in the collective workshop format alone.

To explore bringing the sites together more autonomously, I developed *photo-pen-pals* methods that started with Melbourne students creating personal letters and photo-stories which then I brought to Dhaka students who created and sent their own letters and stories back in response. These in turn inspired the *group action projects* in Dhaka which demonstrated the effectiveness of collective environmental behaviours and the power of connecting together different parts of the open photovoice process.

Throughout developing and facilitating these diverse methods my role continually evolved from the ‘home-base’ of *designer/researcher* in designing and positioning the action-research, to *facilitator/trainer* in the workshop implementation, to *curator* in the photo-story audience engagement processes. However, rather than a smooth linear progression, I found myself oscillating between and amongst these positions as I traversed the multiple sites, which encouraged self-reflexivity and emphasised it was only through the multiple partial viewpoints at each site that I could begin to comprehend the whole practice, just as Haraway (2013) emphasises the importance of seeing from different ‘standpoints’.



Figure 162 - Sharing stories at Rayer Bazar

I was moved to see these transformation of roles amongst participants. Although she was quite talkative in the workshop, nothing had prepared me to see Rumki in full flight explaining her ideas while brandishing her photographs at the Jaago Rayer Bazar exhibition (Figure 162). She had moved from the position of first witnessing herself and her environment as a photographer-storyteller – her self-portrait passionately advocating for preserving nature – to inspiring collective action with her friends as an organiser, then finally expanded herself further to reach out to her wider community as an advocate-communicator.

## 7.2.4 Adapt contributions summary

I built a broad scalable model for the *open photovoice* program structure encompassing *create/reflect/engage* modalities, developed specific *local partnering models* as guidelines for site-responsive partnerships, and experimented with a range of workshop-level participatory processes as part of the multi-sited photovoice methods – including *Think/Feel/Act* and peer-to-peer photo-elicitation. My research affirms the importance of developing relationships and embodied, materiality grounded workshop processes for effective participation.

## 7.2.5 Opportunities for future research

### 7.2.5.1 Deepening participation

Participation could be further deepened in the multi-sited context by designing and researching processes for greater engagement opportunities *between* workshops cycles, such as photo-story competitions or variants of letter-exchanges, and expanded avenues for former students to be involved in subsequent cycles. Identifying collaborative opportunities that would facilitate ongoing participant communication between sites via social media may offer potential longer term participant involvement and open up research into the relationships between subjectivity, visualisation and behaviour. The establishment of a youth-run photovoice committee in Dhaka during site-cycle 15 has been an ambitious step towards upscaling participation at the Bangladesh site, with further opportunities to transition to youth-led multi-sited engagement. Seeking mutual alignment with complementary structures (such as university masters research projects or multi-year broader social research projects) could provide appropriate longer-term scaffolding and support.

### 7.2.5.2 Expanding sites

Expanding the action-research beyond current physical sites could explore the extent to which these engagement methods would work at other sites, and through other types of partner organisations. Lateral multi-site engagement could be expanded by seeking new partner organisations, cities, or new countries. Maintaining conceptual coherence with previous sites could be challenging, which could be met by following pre-existing cultural connections (such as diaspora and migration flows, pre-established multi-sited projects). The key research here would be to develop a more nuanced understanding of multi-sited engagement in the context of behaviour change.

### 7.2.5.3 Developing workshop practices

The participants' own role in their photo-stories and creation processes could be deepened through further developing existing practices such as the *environmental action selfie* or creating new methods to explore different aspects of their subjectivity (identity, future vision, etc.). In addition, to bridge the gap between online reach and the benefits of physical workshop engagement, physical or online train-the-trainer sessions could be developed.

## 7.3 Visualise - photo-story analysis

Through exploring how the photo-stories visualised environmental behaviour I addressed the second research question - '*How can multi-sited photovoice visualise local environmental behaviour?*' I approached this using two complementary analytical approaches – *realist* and *relational material*. The realist analysis considered the photo-stories indexically, inviting a content-counting approach to provide a broad overview of the photo-story themes. In contrast the relational materialist approach solicited analysis based on relational qualities of the photo-stories, providing a more focussed exploration of specific themes.

### 7.3.1 Realist analysis

Using content analysis, I approached the photo-stories at a broad enough scale to discern patterns that may have been missed with a more individual approach, while counting categories as broad as 'tree' or 'rubbish bin' helped to reduce the risk of misinterpretation. However, as the collective photo-story body grew through each workshop series, it was important to conduct the analysis responsively to the engagement practices. The first order photo-story analysis rounds were very loose and vernacular, and essentially served as workshop evaluation to identify specific themes of participant interest which I then reflected back to participants or the partner organisation for discussion.

The second order analysis featured explicit coding and analysis techniques to deepen the insights from a larger sample set spanning Bangladesh and China (Table 18); in this case it revealed key insights into themes consistent across both – for example; valuing specific ways of seeing, nature as life giving, personal storytelling, and the valuing of traditional ways. To address the limitations of this self-selected sample size and rudimentary coding, I next developed a more systematic third round of analysis targeting selected whole class sets (n=152 photo-stories), representative across site and age-level, totalling approximately a third of the complete photo-story collection. I identified a wide variety of subjects through the content analysis, with most popular themes being people, nature/plants, transport, and waste/responses. Summaries of observations and learnings from them are in (Table 24).

Table 24 - Most popular photographed subjects

Rank	Theme	Observations
1	<i>People</i>	Some observation of cultural norms influencing the gender of subjects photographed, and preference of positive emotions expressed over negative.
2	<i>Nature and plants</i>	Narratives emphasising their importance, affirming plants being the key visual association of the environment and ‘standard bearer’ for its protection – particularly in sites that have significantly degraded urban natural environments – such as in Bangladesh and China.
3	<i>Transport</i>	Bangladesh and Australia showing key differences around transport for livelihood vs. post-material/environmental orientations (Figure 158).
4	<i>Waste and addressing waste</i>	Predominantly bins – were most common, weighted heavily in terms of Bangladeshi primary and secondary participants. The prevalence of waste in the immediate urban visual environments led to some Bangladeshi participants making incorrect judgements overemphasising their relative contributions relative to Australia, showing the power of the visual and the importance of appropriate education to complement such engagement.
5	<i>Air pollution</i>	Despite its severe health impacts (WHO 2016), air pollution’s invisibility lead to it being hardly represented – save for in China where its severity is widely known.

The photo-story text provided an insight into the deeper themes behind the photographs. For instance, within the most popular ‘*nature*’ category, there were sub-themes of *nature-connection*, *nature-observation*, *nature caring*, *nature-damaging*, *nature-life giving*, *nature-as-teacher*, *nature-child-connection*, showing the varied range of constructions for ‘nature’ articulated by participants.

While country comparisons were limited by the iterative and evolving research design, there were several insights. China had the most number of nature theme overall – potentially due to cultural factors but also influenced by adaption of excursion-based workshops with more nature immersion. Aesthetics and cleanliness commonly came from Bangladeshi participants living in slum areas where these issues can be of more immediate concern. Conversely, Australia was virtually alone in representing the importance of community, a possible reaction to its comparatively individualistic culture.

Overall, the wide range of environmental behaviours visualised shows the diversity of human-nature experiences across multiple sites, and the efficacy of *open photovoice* methods for visualising them. This was mediated by the limitations of what actions and impacts can actually be visualised, affirming the primacy of the visual in environmental relationships, and suggesting further research directions regarding visualising the invisible as part of workshop processes.<sup>108</sup>

<sup>108</sup> This explicit process was begun in China in the final round but the action research program concluded before it could be propagated across sites.

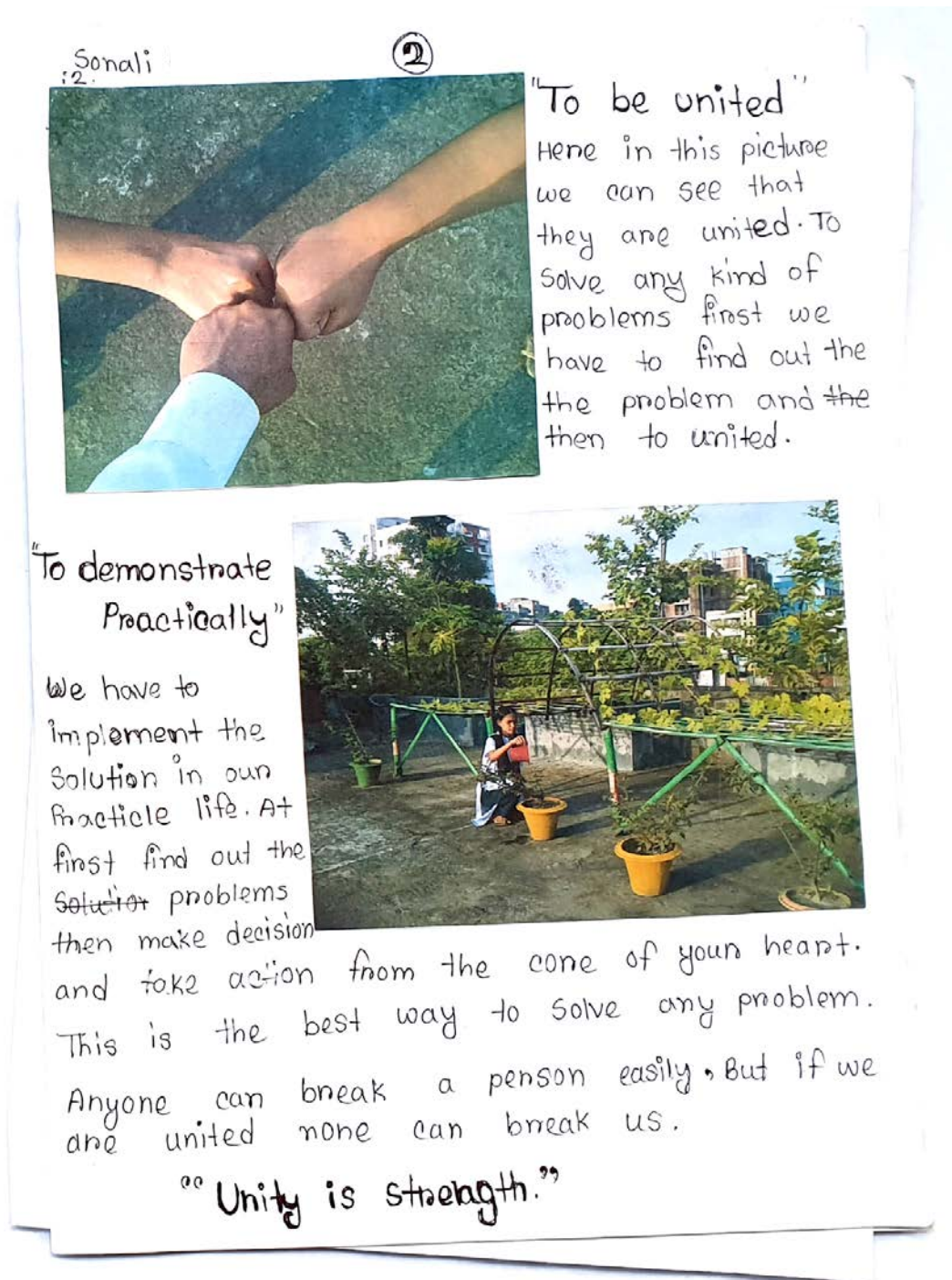


Figure 163 - "Unity is strength" Rayer Bazar photo-story

After over a month of photo-stories coding and churning through so many scanned and transcribed stories on screen back in Melbourne, I thought I had seen them all. Then I found a small packet of the physical photo-stories that I had brought back home but forgotten. Pulling out this one (Figure 163), I was struck by the intimate materiality of feeling its soft paper and the handwriting impressions upon it, which activated memories from walking around Rayer Bazar with those students, and realised that Sonali and her story were helping remind me how to see, almost 10,000km away.

### 7.3.2 *Relational Analysis*

To explore a deeper analysis of the major *human-nature* theme, I turned to a relational-materialist analytical approach, drawing upon actor network theory to examine the ‘lateral’ relational dimensions of the photo-stories.

In the first sub-theme of ‘*supporting humans*’, the tree’s shade providing capacity may be seen as an expression of its agency operating through the assemblage of *tree-human-sun*. This reading helps us to think about agency in a broader, more-than-human, distributed fashion (Bennett 2009). The second sub-theme ‘*reciprocal giving*’ affords perspectives on how human and natural subjects are co-constructed in relation to each other – all these photo-stories speak from an intimate empathetic position. They ask us to think differently regarding our position as a passive human observer, or active ‘manager’ of nature; suggesting our subjectivities and agencies are themselves co-constituted with our natural kin (Barad 2007). The third sub-theme ‘*sight*’ invites the viewer to see from different ‘vantage points’ that open up alternative and embodied knowledge. Each one challenges us to shift from being a detached spectator to being ‘enchanted’ and enrolled in relations that act through the photo-stories themselves (Bennett 2016; Abram 1996).

Approaching the analysis relationally invited me to relinquish my previous assumptions regarding what could be objectively known from the photo-stories. Instead this helped me to relearn my own ways of seeing what subject, object, action, and relationships were, and how these related to environmental behaviour. Each photo-story became its own prism refracting (and diffracting) these lateral relations, inviting different ways of seeing, that in turn helped me visualise environmental behaviour, and the subjectivity and agency behind it, in novel and expanded ways.

### 7.3.3 *Visualise contributions summary*

Through the realist approach I developed a three-tier content analysis method for exploring photo-stories at different levels of a photovoice program. This process can also be used to validate the efficacy of *open photovoice* methods. The relational materialist approach developed insights through ANT that illuminated more-than-human perspectives on the relationship between visualisation and environmental behaviour, expanded perspectives on the concept and role of agency, ways of seeing, and reciprocal support within such behaviours.

## 7.3.4 Opportunities for future research

### 7.3.4.1 Extending realist analysis

Developing a framework for participatory data analysis would allow more locally-grounded insights into both the data and coding process. Local analysis may also provide new research questions or angles to emerge from the data. Further examination of demographics (gender and age) analysis with respect to environmental action, emotions, empathy and identity may also be fruitful for developing deeper understanding of the relationships between the multi-sited factors.

### 7.3.4.2 Extending relational materialist analysis

This analysis could be expanded to the other themes beyond *human-nature-connection*, which could test to what extent the above insights regarding agency and empathy extend across themes. Further analysis could also open up potential for new relational forms and assemblages to emerge. Comparing how these relate to the relational analysis of photovoice audience engagement and influence could also provide further insights. Mixed-methods approaches explicitly contrasting tensions from both analytical strategies could also help to shine further light on insights that are beyond either individual perspective.

### 7.3.4.3 Deepening analysis of cultural dimensions of *nature* and behaviour change

Both realist and relational analysis could be further focused to explore the specific cultural dimensions or site specific constructions of *nature* and the associated behaviour change visualisations, especially in non-Western cultural contexts, which the research demonstrated clear knowledge limitations. Themes of *in/visibility* may also be relevant here, and how these connect with social practices. There are opportunities to extend participant interviews and social media analysis that could complement the existing participatory visual approaches.

## 7.4 *Influence* - photo-story engagement and behaviour

I focussed on the audience-side engagement through this final research orientation, exploring ‘*How might we use multi-sited photovoice to influence local environmental behaviour?*’ Engagement methods included exhibitions, interviews and group action projects. I developed these methods through blending elements from both the design-process development approach of the *create* strand and the data analysis of the *reflect* strand, while using both empirical and relational approaches to analyse participant-viewers’ responses.

### 7.4.1 *Realist approach*

#### 7.4.1.1 Exhibitions

I designed three public exhibitions that tested different aspects of photo-story engagement. The first exhibition in Coburg library piloted the dual-panel engagement approach to directly bring Bangladeshi and Australian photo-stories into dialogue. The second exhibition at Monash University developed detailed audience feedback techniques, where impact and emotion analysis revealed that the dual-panel displays were actually less effective than single-story displays. This highlighted a key tension between my own curation versus participant-driven curatorial approaches – in this case the conscious choice of stepping back from specifically curating the cross-site dialogue (through photo-stories pairing) aligned with the audience engagement data. In designing the third exhibition in Docklands library, I reduced the emphasis on audience engagement data collection, shifting from investigating photo-story audience *impacts* to more audience *environmental behaviour* through using online pledges. Although getting engagement was challenging in this community library venue, I used this behaviour pledge approach more successfully in the subsequent Bangladesh and China exhibitions, which also evaluated the effectiveness of delegating the exhibition organising entirely to local partner organisation and participants. This proved very successful in generating community engagement and data collection, underscoring the importance of local participation and ownership in multi-sited photovoice audience engagement.

Overall the exhibitions affirmed the importance of local connections – people engage best with what they are already feel connected to. However, establishing and maintaining these connections across sites remains a key challenge and direction for further research.

#### 7.4.1.2 Interviews

I developed the photo action interviews to provide an easier, flexible alternative to the challenges of organising full-scale public exhibitions. By focussing on one-on-one photo-elicitation, I was able to manage a smaller number of much deeper and richer photo-story audience engagements. The audience-response data showed that Bangladeshi photo-stories were most popular across Australia and Bangladesh (followed by China, then Australia) – which may suggest the asymmetrical effects of *global empathy*. A 70/30% bias was found towards participants recounting experiencing positive emotions over negative ones in response to their chosen photo-stories – matching with exhibition responses – which suggests the importance of positive emotions in both photo-story creation and audience engagement.

I incorporated on-the-spot photo-portraits of interviewees together with their personal environmental behaviour pledge and their favourite photo-story in the next round of interviews. My follow-up surveys confirmed that not only did the participants complete their pledged actions, but that the interviews actually influenced their environmental behaviours in *unplanned* ways – suggesting that participatory engagements through the project may have influenced environmental behaviours in novel ways beyond the ability to articulate or measure them at the time.

The interviews were ultimately successful in closing the loop between photovoice *creation* (the selected photo-story), *response* (interviewees' cognitive and affective response to the photo-story), and *action* (their individual environmental behaviour pledge) across different sites, and through doing so providing a flexible photo-elicitation approach that can be run in a variety of contexts with minimal resources.



Figure 164 - Interview portraits at SLF 2019

Amongst the crowds at the Sustainable Living Festival it was unusual to see people so captivated, present and animated, as these two Melbourne women were when they spoke passionately about their favourite photo-stories from Bangladesh, and how that each story had led to them sharing their deep environmental fears, and their commitments for change (Figure 164). These intimate, place-based stories had started out in Dhaka, bridging an enormous gap, of not just distance – but worldview and possibility – between these two worlds. Through this they inspired self-realisation and action in ways that their creators, or myself, could not have imagined.

### 7.4.2 *Relational approach*

From a non-anthropocentric viewpoint, the realist approach that had defined my analysis of the audience engagement methods can be limited in how it defines environmental behaviour, tending to treat it as a *vertical* arrangement of an active human subject acting on a passive lifeworld. I sought to address this by using the complementary relational-material approach to view environmental behaviour as a *horizontal* configuration where the ‘behaviour’ itself can be seen as reconfigurations of *agency* and *mutual becoming* emerging through the ‘entanglement’ between different actors in their shared network. Thus I could focus on the relational nuances that may be missed when viewing the practices from a solely empirical perspective.

Exploring two photo-story engagement methods relationally – exhibitions and interviews – allowed me to see them as *constitutive* practices, which work to create unique new visually-mediated networks between participants across their sites and worlds. This necessitates a broader approach beyond simply *measuring* environmental behaviours, to *modelling* new ways of relating and supporting the environmentally engaging practices that emerge (Cameron, Manhood, and Pomfrett 2011), thus expanding concepts of environmental behaviour to better suit a globalised, non-anthropocentric world.

### 7.4.3 *Influence contributions summary*

Through the influence orientation I contributed innovative photovoice audience engagement methods across exhibition, interview and groupwork contexts. Photo-story exhibition models with specific audience interactive processes together provide methods for evaluating the public impact and influence of photo-stories across multiple sites. Environmental action interviews provide a complementary flexible method to explore the cognitive, affective, and behavioural dimensions of photo-stories and how they relate to environmental behaviour change. Finally, group action projects provide models to link existing individual photovoice practices to collective-level behaviour change processes. These methods are both scalable and applicable to themes beyond environmental behaviour change. Collectively these *open photovoice* audience engagement methods affirm the importance of participation, visibility and empathy to environmental behaviour in a multi-sited context.

## 7.4.4 *Opportunities for future research*

### 7.4.4.1 Extending photo-story dialogues

Opportunities exist for further developing curatorial and audience engagement processes for connecting participants and photo-stories across multiple sites. Exhibition processes could be extended to allow greater cross-site connections (for instance virtually through video conferencing) or collaborative multi-site connection (for instance participants collaborating across sites on photo-story development).

### 7.4.4.2 Deepening environmental behaviour engagement

The environmental action pledges could be made more user-friendly, engaging and directly related to the multi-sited context. Online approaches could also integrate social media to provide opportunities for engaging with broader social networks – with the challenge of representing and inspiring embodied nature connections through this medium. Face-to-face approaches could involve deepening action pledges with embodied visioning processes, and more personalised support components.

### 7.4.4.3 Deepening peer-to-peer engagement

The peer-to-peer processes such as photo-pen-pals could be deepened by integrating them into existing local curriculum goals or projects, existing bilateral partnerships such as sister schools, or global initiatives such as UNESCO programs. It is critical to develop and engage with relevant PAR processes alongside any technical or design process innovations across any of the three orientations – in order to keep open both the creative channels, and do justice to the novel ethical obligations that arise during this kind of multi-sited participatory action-research.

## 7.5 Concluding remarks

### 7.5.1 Methods and contribution

In summary, my project's key action-research contributions include the development, and critical evaluation of multi-sited photovoice, together with the methodological and analytical processes across the three research orientations of *adapt*, *visualise* and *influence*. I have used the adapt-orientation to develop multi-sited photovoice methods from the granular workshop level to the whole program level which affirm the importance of *materiality* and *relationality* to facilitating creative practices and supporting participation. Through the visualise-orientation I developed dialectical mixed-methods approaches that affirmed the ability of multi-sited photovoice to visualise diverse locally-grounded environmental behaviours, while expanding perspectives on *agency* and *ways of seeing* and their crucial role in environmental engagement. Through the influence-orientation I demonstrated the capability of multi-sited photovoice audience engagement processes to influence environmental behaviours both individually and collectively, opening up a methodological dialogue between environmental behaviour change practices and visual research methods.

These innovative *open photovoice* methods (Table 25) have collectively contributed to (re-)framing the global dimensions of local environmental behaviour and have provided acutely needed opportunities for grassroots environmental storytelling across vast cultural, economic, environmental and geographic divides.

Table 25 - Open photovoice comparison summary

Attribute	Traditional photovoice	Open photovoice
<b>Aims</b>	Empower participants and explore project's theme through their photo-stories	Empower participants and explore project's theme through their photo-stories and ongoing audience engagement
<b>Physical sites</b>	Single site	Single or multiple sites
<b>Participants group</b>	Single group	Multiple groups (at least one creation and audience group)
<b>Participant numbers</b>	Small intimate size	Variable size
<b>Engagement duration</b>	Medium-long	Variable, constrained by multiple sites
<b>Photo elicitation</b>	Elicitation limited to workshop participants	Elicitation opened to cross site participants
<b>Participant engagement</b>	Deep and transformational	Surface to deep depending on time duration and site context
<b>Visual vocabulary</b>	Local, deep visual vocabulary	Local visual vocabulary informed by multiple sites
<b>Behaviour change</b>	ongoing participant concretisation through deep participative process	Linking practices to behaviour change methods
<b>Audience engagement</b>	Traditional exhibition	Interactive exhibition, interview, collaborative action

Although these methods are still only in their nascent stage, with further action-research required to explore the complexity and unique challenges of *open photovoice* approaches, they show abundant opportunities for inspiring grassroots environmental behaviour across and between global borders. This research affirms the importance of bringing global perspectives to local photovoice practices, and these learnings have the broader potential to significantly improve the effectiveness of participatory action research and environmental behaviour change programs globally.

### 7.5.2 *Sharing and learning*

The hundreds of young people who participated in the 80 workshops ranged from primary-aged children at a Melbourne private school who used their class iPads for making their stories in their spacious schoolyard, to secondary students in a dense marginalised Dhaka neighbourhood who shared second-hand Blackberry camera-phones for the precious hour spent photographing around their local alleyways, to tertiary students at Hangzhou's vast media communications university who photographed on their smartphones and shared online in between classes.

Aside from their own classes, none of these participants had ever met each other, even within the same city, and lived out vastly different daily lives and relationships with their local environment. The Australian students spoke about their school's beehives or rubbish on the nearby beach, the Bangladeshi students about cleaning their streets and climate refugees from flooded coastal areas, and Chinese students about connecting to trees in tiny parks and seeing patches of sky amidst their sprawling cities.

Yet beyond all these differences their photographs and stories shared similar themes of fear and hope. Fear of their home, streets, waterways, and air becoming polluted, or concern for the animals and plants in their neighbourhood becoming hurt or sick. They hoped that their small acts of caring could inspire others, that somehow the adults around them could understand and feel the suffering of nature like they do, and want to join them taking action. Beyond these shared concerns, they found subtle glimpses of each other's lives – and hopes and struggles – through each other's photo-stories or messages. These provided rich, complex, discursive and embodied opportunities to think, feel and act beyond their cultural, linguistic and economic differences. The story-sharing provided spaces for thinking about their own environmental issues, relationships and behaviours in the context of young people their own age thousands of kilometres away. This crucially allowed not only the cultivation of empathy within and between their human communities, but also inter-species empathy as many spoke from the voices of the plants and animals around them, asking for the opportunity to be seen, felt and heard.

### 7.5.3 Coda

I look over my backyard in suburban Melbourne as I complete writing this exegesis. It's been the hottest October on record and over half of the Great Barrier Reef is bleached due to rising temperatures. Almost 9000km away in Dhaka, winter is coming, in a year that has seen the most active cyclone season on record. A similar distance away in Beijing, the winter smog season approaches. Globally, as the sun sets today, another 200 species become extinct. However, the white screen where I write these words, like the white screen in which you read them, remains a stable little bubble, a comfortable controllable world.

We have had a journey together here, through space and time, of ideas, photographs and stories. Yet the power of this journey lies in the material ground below it, the territory which always escapes the map. I found this territory to be visceral – sweating in the narrow humid streets of Korail 'slum' in Dhaka, shivering in the search for NGO offices high in apartments across freezing Beijing, and wandering around the wide, flat playgrounds in Melbourne schools to the sound of cicadas. It has been through the embodied connections between and within these contrasting worlds – of people, cameras, photo-stories – which have created spaces for encountering and witnessing different relationships with the natural world, and through this the promise of environmental behaviour change. Through continuing the telling and sharing of these stories of hope we can learn to see more of the changes occurring outside our own physical, and mental backyards – through which we can open up to, and care for what lies within it, right in front of our eyes, hands, and hearts.

This research journey has been four long, passionate years of gathering, supporting and sharing these kinds of storytelling within slowly widening circles. My deep hope is these circles keep expanding through inspiring others to tell their own stories, contributing to the local and global changes that are so desperately needed at this time, not only through our actions, but by re-awakening our eyes, ears and hearts.

*'Another world is not only possible, she is on her way.*

*On a quiet day, I can hear her breathing'*

(Roy 2003, 5)

## Appendix A - Knowledge sharing

### 8.1 Appendix A1 - Presentations made on behalf of the project

Table 26 – Project presentations

Date	Country	Location	Partner Organisation	Host Organisation/Cohort	Details
17 March 2017	Australia	Melbourne	New Environmental Humanities Reading Group		Portraits of change: photovoice and multi-species ethnography
3 April 2017	Australia	Melbourne	Monash	Master of International Development Practice, Faculty of Arts	Design-based photovoice in development contexts
26 April 2017	Australia	Melbourne	Monash	Monash Sustainable Development Institute	Design-based photovoice in for sustainable development
18 May 2017	Bangladesh	Dhaka	ICCCAD	Weekly Seminar	Photovoice concepts and workshop process (with Emily Crawford)
11 August 2017	United Kingdom	Bath	The Association of Commonwealth Universities	ACU Summer School program	Project presentation
4 July 2018	Australia	Melbourne	Rotary Club of Moreland		Supporting environmental justice using photovoice
16 August 2018	Bangladesh	Dhaka	ICCCAD	Weekly Seminar	Learnings from peer-to-peer photovoice approaches
22 August 2019	Australia	Melbourne	Monash	Monash Sustainable Development Institute	Using photovoice in multi-sited context for environmental behaviour change
9 September 2019	Australia	Melbourne	New Environmental Thinking Symposium	Deakin University	Good news for (a) change?: photo-storytelling approaches to youth north-south dialogue.

## Appendix B - Methodology

### 9.1 Appendix B1 - Spatial-Temporal Levels

Table 27 - Full Spatial-temporal screener

Category	Time	Space
<b>A</b>	<b>Program-cycle</b> This broadest PAR cycle encompassed the whole photovoice program, which unfolded across 9 phase cycles across three countries.	<b>Program-level</b> This broadest spatial level encompassed the whole photovoice program, which unfolded across 17 successive PAR site cycles, across three countries.
<b>B</b>	<b>Phase-cycle</b> These represented methodologically-grouped site cycles, which occurred across different times and spaces.	<b>Site-level</b> This level represented country-based sites – Australia, Bangladesh, and China.
<b>C</b>	<b>Site Cycles</b> These PAR cycles grouped partner-cycle activity together at a single site during a single field visit.	<b>Location-level</b> This level represented cities where local partners were located, each site contained one location with the exception of China.
<b>D</b>	<b>Partner-cycle</b> These PAR cycles grouped specific activity-cycles that were run with the same partner organisation.	<b>Partner-level</b> This level represented local partner organisation(s) which the activities were co-organised with.
<b>E</b>	<b>Activity cycle</b> These PAR cycles represented individual specific activities – such as workshops, interviews, which had specific times and locations.	<b>Activity level</b> This level represented the individual specific activities conducted at each site through one partner organisation.

## 9.2 Appendix B2 - PAR methods

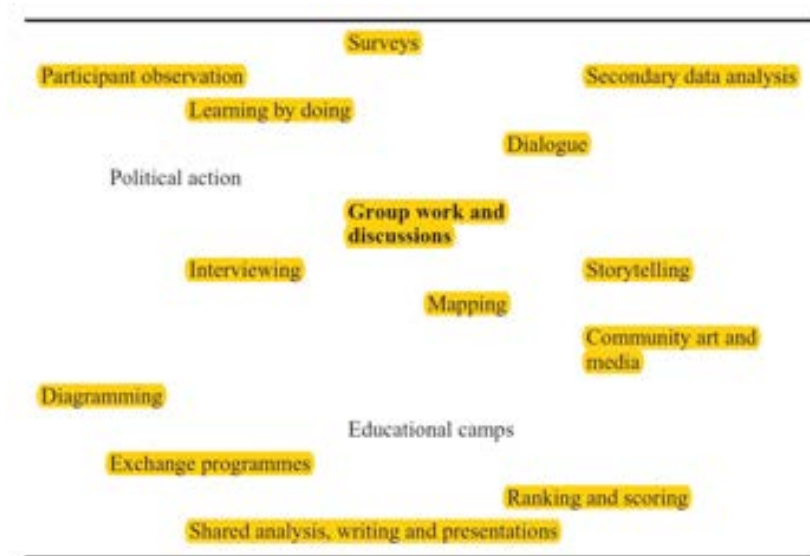


Figure 165 - Common PAR methods showing usage in the project (highlighted) (Kindon, Pain, and Kesby 2007, 17)

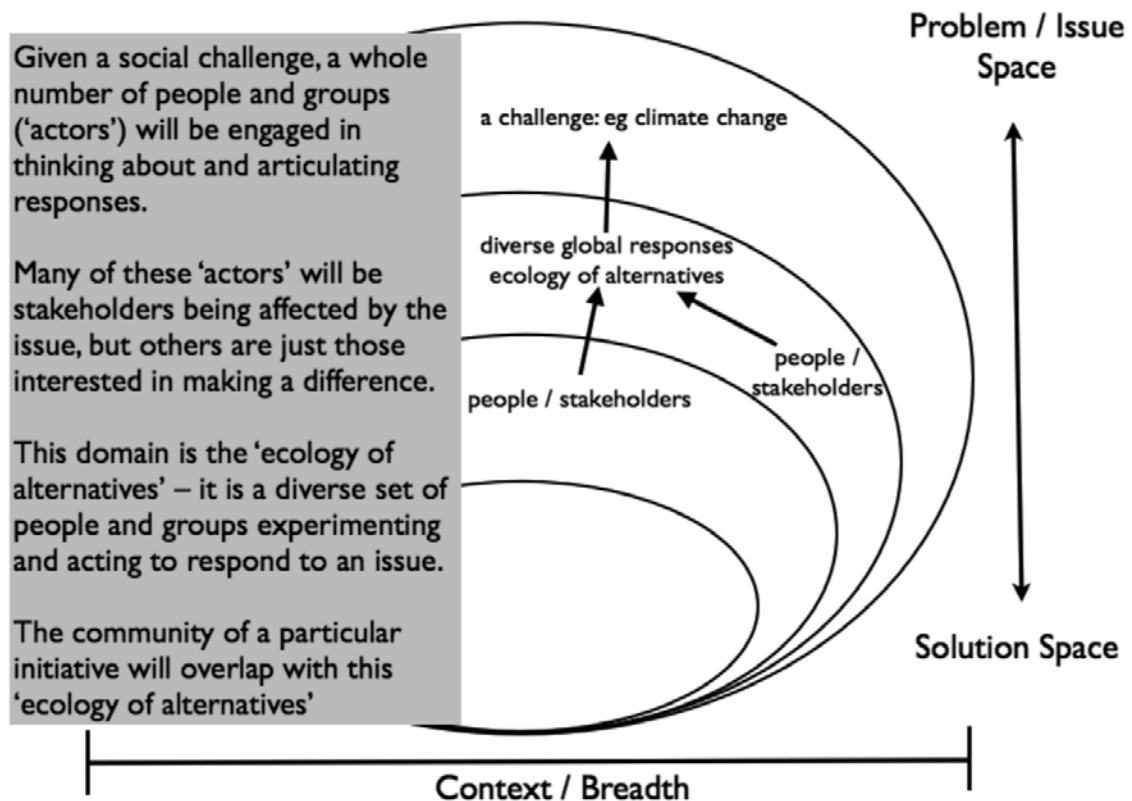


Figure 166 - Foresight Action Model overview (Ramos 2013, 90)

## 9.3 Appendix B3 - PAR summary data

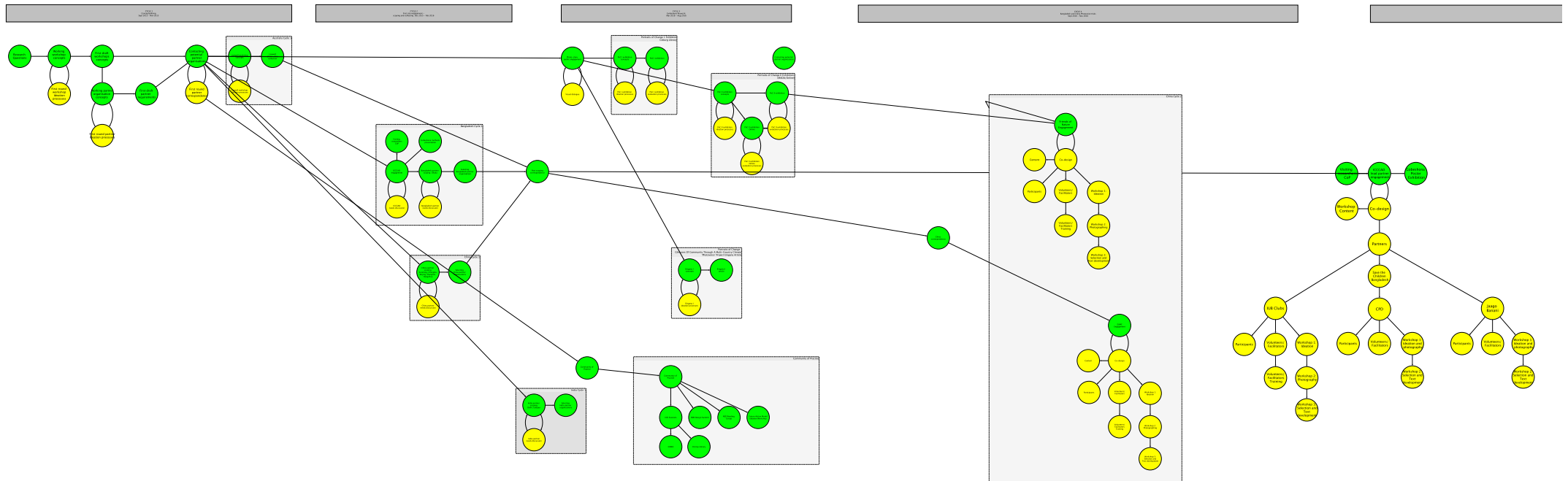


Figure 167 - Process mapping (extract)

Table 28- Australia PAR cycle notes extract

Cycle	1	2	3	4	5	6	7	8
<b>Phase</b>	<b>Conceptualising</b>	<b>First site engagement - scoping and collecting</b>	<b>Exhibitions Round A: First experiments</b>	<b>Bangladesh and China Photovoice trials</b>	<b>Exhibitions Round B: Multi-site and online</b>	<b>Photovoice Round A - Bangladesh/China</b>	<b>Photovoice Round B - Bangladesh/China</b>	<b>Photo-analysis Round A</b>
<b>Date</b>	Aug - Nov 2015	Dec 2015 - Feb 2016	Mar - Aug 2016	Sept - Nov 2016	Dec 2016 - April 2017	May - Jun 2017	Oct - Nov 2017	Dec 2017 - Jan 2018
<b>Key Activities</b>	Develop conceptual basis of project Project literature review	Scoping partner organisations in Australia, China, Bangladesh and India	Trial photostory exhibition and engagement techniques Thematic positioning	Trial photovoice workshop process Trial multi-sited exhibition	Multi-sited exhibition Docklands Library Online crowdfunding campaign A Interns Rounds A	Run workshops to facilitate photo-story creation, experiment with photo responses Cross site empathy analysis A	Run workshops to facilitate photo-story creation, evolve participant engagement Photo-story analysis A	Photo-analysis for social ecological themes
<b>Participants</b>	Environmentally active people			Environmentally active people problematised -> Environmentally engaged youth		General /informed youth	General /informed youth	General /informed youth
<b>Audience</b>								
<b>Research themes</b>	building community climate resilience		building community climate resilience	building community climate resilience		environmental behaviour change	environmental behaviour change	
<b>Exegesis development</b>	RM1/1 - Mapping the Field RM1/2 - Re:Search		Chapter 1 - Orientations RM2/1 - Syllabus					
<b>AUSTRALIA</b>								
<b>Critical writing</b>	Exegetical writing: Project literature review Project thematic map		Eingana community article Thematic positionings (confirmation)			Cross-site engagement and empathy A	Photo-story analysis A	Methodology chapter
<b>Data collection</b>		<a href="#">PS collection through Livewell, and Lighter footprints submissions</a>	Audience response data PoC II					Portraits of Change IV Environmental action interviews at SLF Big Weekend Interviews at monash
<b>Project team</b>	me	Collation/pairing with my relevant photographs	me		Emily, Bhuvan, Zoe, me	Emily, Zoe, me	me	Emma, Agam, Kate, Yuxin, Me
<b>Engagement</b>		JCI, Livewell	Project Info Sessions (CERES, Fitzroy library) PhoneCycle cameraphone donation		PoC workshops Dockland	AYCC young leaders workshop User submission feature added to website		SLF dialogical
<b>Community of Practice</b>	NED / DERC Reading groups RM1	Livewell	Livewell FAM Vision Session NED / DERC Reading groups EWB design summit (Cambodia)	Global Ecologies – Local Impacts Conference Nov 16	Environmental Humanities reading group presentation MSDI lunchtime presentation (SDGs)		ACU Summer school Aug 17	
<b>Dissemination</b>			SLF - Portraits of Change I Exhibition (Coburg Library)	Portraits of Change III Exhibition (Docklands Library)	Masters of Development guest lecture	-	-	
			Portraits of Change II Exhibition (MADA/Online)		Photo-story postcard developed (eval?)	-	-	
			Portraits of Change: Glimpses Of Community Through A Multi-Country Climate 'Photovoice' Project Eingana		Crowdfunding online campaign	-	-	
<b>Learnings 1</b>		Livewell initiated and helped shape wellbeing part, neighbourhood scale actions	PoC1 - positive responses received for the first drop in session, audience feedback difficult to evaluate, images' diluted in the cluttered space.	<insert learnings>	Difficult to set up workshops - wrong targeting (environmental NGOs instead of educational institutions)			
<b>Learnings 2</b>	demographics are old folks, CAGs	Livewell initiated and helped shape wellbeing part, neighbourhood scale actions	PoC2 - high traffic location, visually literate audience, quantifiable engagement, quantitative measures have key subjective limitations, laborious manual process.		AYCC workshop failure - AYCC overcommitted, intern not enough to drive it, covecomittal			
<b>Learnings 3</b>	Importance of trying to unlearn photovoice		stories more impactful than the images alone - Positive emotions most common - define and clarify the meaning of impact Paired images powerful yet difficult to isolate the audience impact on env behaviour		Website launched			
<b>Learnings 4</b>			PoC online: assessable anywhere, interactivity is immediately quantified, space for more indepth qualitative responses. Negatives – immersive, spatial, and social dimensions lost.					

Table 29- Bangladesh PAR cycle notes extract

Cycle	1	2	3	4	5	6	7
Phase	Conceptualising	First site engagement - scoping and collecting	Exhibitions Round A: First experiments	Bangladesh and China Photovoice trials	Exhibitions Round B: Multi-site and online	Photovoice Round A - Bangladesh/China	Photovoice Round B - Bangladesh/China
Date	Aug - Nov 2015	Dec 2015 - Feb 2016	Mar - Aug 2016	Sept - Nov 2016	Dec 2016 - April 2017	May - Jun 2017	Oct - Nov 2017
<b>BANGLADESH</b>							
Funds	-			30000		72000	100000
Funding	-			-		USAID Youth program partial funding, crowdfunding \$5000	USAID Youth program partial funding, ongoing use of crowdfunds
Cameras				12 blackberries		24 blackberries, other cameras	20 blackberries (unworking ones donated/purged)
Post participant engagement	-			General invitation to working group - fail as insufficient follow through		Second attempt invitation to working group - partial supported through intern, fail as insufficient follow through	Third attempt invitation to specialised working group - supported through intern and exhibition funds, TBA
Workshops				2x Project Be/Environment Club		1x Project Be/Environment Club (2nd follow-up post visit)	2x IUB
				2x CPD		2x CPD	2x NS university
				1x Jaago Banani (2nd follow-up post visit)		2x Jaago Banani	2x Jaago Rayar Bazar
						1x ICCCAD Masters (follow-up post visit)	1x ICCCAD Masters (follow-up post visit)
Data and documentation				Participant name and contact		Participant demographics - name, age, gender	Participant demographics - name, age, gender
						Jaago responses to overall process - lost by PNGO	Photo-story responses - FEEL, THINK, ACT
							Quantified FEEL response (GEW)
							Jaago workshop responses and idea sheets
				Selected portraits of participants with photo-stories		Systematic portraits of participants with photo-stories	Selected portraits of participants with photo-stories
						Extensive video documentation and interviews	Selected video documentation, interviews
						Post-workshop evaluation - lost by PNGO (?)	Detailed post-workshop survey, with ACTION-intentions
Community of Practice		ICCCAD staff and VRs Gobeshona		Volunteers essential			
Dissemination		Gobeshona 2016 methodology presentation		Posters developed and displayed at Gobeshona 2017 - good for displays but resource intensive		Exhibition idea trialled - fail due to capacity/venue constraints	Specific exhibitions organised through discreet funds (NS, Jaago)
				Facebook group setup for IUB - fail as people too shy to post		Facebook group rekindled for IUB, some degree of interaction	Facebook groups greater sharing focus - IUB, NS, Jaago, successful sharing
Learning 1		Danger to believe in promises for engagement (eg SAVE)	Natural attrition/filtering of NGOs through many too busy to return emails etc	Photovoice method successful at generating environmental action photo-stories, shorted 3 workshops -> 2 workshop format		Trial local volunteers running subsequent workshops - possible with clear direction.	Working with single dedicated local intern better than volunteer team
Learning 2		Best fit are organisations suited for ext short term research project - ICCCAD visiting researcher program	Tried to follow-up save the children in australia (nick irelland)	Challenge to discern environment from climate change-> combined as distinction outside scope of project engagement		Dedicated intern allows for video documentation, extra ideation etc, but more energy required	PS dissemination more effective through specific exhibition working groups, funded (TBC)
Learning 3		Benefits to ICCCAD - capacity building for staff/interns (as opposed to more 'matured' NGOs)		Gap between what can be ideated and what can be taken during the time-> continued issue		Engaging with PS from other sites difficult with younger participants (Jaago/CPD)	Older youth participants chosen, basic data collected on cross site engagement
Learning 4		NGO scoping went in form of pitching for mutual benefit/plugging into existing programs/low-hanging fruit instead of more ambitiously participatory position		Gap between capturing the photo-story and the deeper context behind it (insufficient time in MS context)		Reduced workshop introduction/project background time in favour of ideation	
Learning 5		multi-sited nature of project meant limited variation on site		Simplistic repetitive documenting infrastructure photo-stories > more creative ideation given in workshops		Beware facilitators overly guiding participants	
Learning 6				Ages- BD young participants, less CC/env knowledge, cf older participants in Australia and China.		ICCCAD challenges: other projects, health, and 'brain drain' impinging on local staff capacity which required continual juggling of schedule and human resources.	

Table 30- China PAR cycle notes extract

Cycle	1	2	3	4	5	6	7
Phase	Conceptualising	First site engagement - scoping and collecting	Exhibitions Round A: First experiments	Bangladesh and China Photovoice trials	Exhibitions Round B: Multi-site and online	Photovoice Round A - Bangladesh/China	Photovoice Round B - Bangladesh/China
<b>CHINA</b>							
<b>FON</b>							
Funds	-			1200		3000	
Funding						crowdfunding top-up	
Cameras						2x digital camera donation	
Post participant engagement							
Workshops						1x talkshow	
						2x nature-activity workshops	
						1x follow-up workshop	
Learning 1		Lack of NGOs doing community engagement, partly due to China governance		Photovoice method successful at generating environmental action photo-stories, using 3 workshop approach		Talkshow format - limited success with followup PS, but allowed for remote participation	Know thy partner, purpose/audience - CPC gallery workshop with older folks balance with staying opportunistic
Learning 2		Communication was going to be challenging (language, internet censorship)		Trained volunteers but they were not very effective or motivated at engagement with participants, guiding behaviour older males		Activity-based workshops - Birding and Rivers excursions, follow up with final class-based	FoN time poor, recruited intern (Chau) but quit shortly after, one factor in many planned activities struggled, but had good processes in place (cognitive form evaluation, comp, etc)
Learning 3		challenge of pitching with established NGOs - Intimidating, demonstrating value. Project name changed depending on pitch: 'climate adaption project/climate resilience project'		Challenging to recruit and retain participants as no pre-existing group		Developed detailed 3 month plan with internship role supporting competitions - intern fail as internal FoN changes, competition limited success first round only, but got approx 10k impressions wechat article, voting effective	Go to where the people are already and turn them into participants t are already - difficult hustling people at the university
Learning 4		FoN - unique with lots of members, volunteers, openness to engage.. 80 local member groups across china, 20k volunteer members... my own familiarity with low-carbon program		Despite lots of engagement and ideation, very few photo stories were actually submitted - ditto with evaluation		Video documentation - workshops for online course development (lack of capacity to complete)	CRCC asia workshop went well but hard for someone else to take over if there weren't involved (Chau)
Learning 5		through pitching evolved idea for platform for engagement for other NGOs... but ended up being too big		importance of social media communication between workshops (wechat) language issues		First trial of selecting existing photostories in workshop for engagement	
<b>ZUMC</b>							
Funds				-		1500	
Cameras						2x digital camera donation	
Post participant engagement							
Workshops				2x postgrad workshops		5x different undergraduate classes	4x different undergraduate class
							1x postgraduate class
Learning 1		Most Chinese NGOs were not set up for community engagement, political context		Photovoice method successful at generating environmental action photo-stories, using 3 workshop approach		Using existing teaching class with tight, activity rich workshop yields good results	Effective theme: Making the invisible visible, environmental selfie, your change-maker identity (ZUMC)
Learning 2		Had to visit multiple cities to find appropriate organisations - Kunming, Chengdu, Beijing, Shanghai, Hangzhou		Trained volunteers but they were not very effective at engagement with participants		teacher collecting PS ensures they get returned	efficiently worked with 2 classes (new PGs conventional W1+W2, and 'old' UG new type of single workshop with new themes (above), submit via wechat at later date)
Learning 3		Hangzhou ZUMC contact Asan helped broker meetings with some NGOs, built up relationship this way, then ended up		Captive audience' class is much easier than recruiting afresh		Trial of participant responses to photo-stories successful in gathering rich data through simple writing response	Large scale of classes makes it hard for post-workshop volunteer group formation (exhibition, online) (PG)
Learning 4		Scoped out India (Delhi and Udaipur) as well		Sending out evaluation form via teacher yielded much better results than inworkshop FoN		Social practice idea - fail (lack of follow-up capacity?)	Piloted new form of pre/post workshop testing with NEP survey
Learning 5				Less degree of environmental awareness - more ideation			

## 9.4 Appendix B4 - Intern Position Descriptions

See following pages



## ***Internship and Collaborating Partner Opportunities*** **- Summer 2018 -**



### **Project Summary**

The Climate Resilience Media Exchange (CRME) is a small non-profit action-research project based in Melbourne that uses participatory photography to document, share, and showcase emerging grassroots responses to climate and environmental impacts across cities in Bangladesh, China and Australia. Through harnessing the power of this visual storytelling, we engage with youth in each country to inspire local environmental action and facilitate cross-cultural engagement.

### **Project Goals**

- To empower and connect youth from 3 countries through participatory visual story telling
- To produce and disseminate a range of high quality visual outputs showcasing urban environmental and climate change responses
- To develop and compile relevant applied research into participatory visual methods and cross cultural story exchanges

### **Project Activities**

- *Photovoice workshops* – Participants are trained to use visual storytelling to document their local climate resilience activities.
- *Environmental photo-story dissemination* – public physical and virtual exhibitions of the photo-stories produced from the workshops
- *Cross-cultural engagement* – sharing photo-stories and experiences between different global sites

Further information about the project including images and stories from previous workshops can be found here: <http://greenphotovoice.org/>

### **Intern and collaborating partner opportunities**

As the project is entirely volunteer-run at present, motivated interns and collaborating partners are the key to building capacity to achieve the above project goals.

<b>Position Title</b>	<b>Web, Communications and Social Media Coordinator</b>
<b>Reporting to</b>	Michael Chew, Global Coordinator
<b>Email</b>	michael.chew@monash.edu
<b>Number of interns required</b>	1
<b>Position Summary</b>	<p>We seek a motivated person to fill the intern role of Web, Communications and Social Media Developer at the Climate Resilience Media Exchange (CRME), who will be responsible for the following three areas:</p> <ul style="list-style-type: none"> <li>- A functional project website has been developed using a wordpress platform - this requires some ongoing development and updating.</li> <li>- An engaged and responsive social media presence will also be required to disseminate the photo-stories and perform outreach.</li> <li>- Communications plan will be developed and implemented to outline how the project can effectively disseminate its prolific visual output for environmental education and behaviour change goals.</li> </ul>
<b>Intern's Duties</b>	<ul style="list-style-type: none"> <li>• Website development</li> <li>• Content management</li> <li>• Communications and social media strategy</li> <li>• Communications and social media implementation</li> <li>• Dissemination of photo-stories</li> <li>• General administration</li> <li>• Input into CRME strategic directions</li> </ul>
<b>Skills/Experience Required</b>	<p><u>Essential</u></p> <ul style="list-style-type: none"> <li>• Interest and motivation in the project</li> <li>• Web development and content management skills</li> <li>• Social media and communications skills</li> <li>• Excellent communication skills (oral and written)</li> <li>• Ability to work independently as well as part of a team</li> </ul> <p><u>Desirable</u></p> <ul style="list-style-type: none"> <li>• Experience/knowledge in using visual creativity for social change</li> <li>• Experience in a start-up environment</li> </ul>
<b>Benefits to the intern</b>	<ul style="list-style-type: none"> <li>• Drive the online presence for this global sustainability project</li> <li>• Be part of the project coordination team and help shape the project</li> <li>• Receive individual support and guidance</li> <li>• Receive a tailored reference/referee statement acknowledging your valuable contributions</li> <li>• Potential opportunities to attend project activities in Bangladesh and China in 2018 (TBC)</li> </ul>
<b>Successful Project Outcome(s)</b>	<ul style="list-style-type: none"> <li>• Website developed and updated</li> <li>• Website traffic and interaction goals met</li> <li>• Communications and social media strategy and goals developed</li> <li>• Communications and social media goals met</li> </ul>

<b>Position Title</b>	<b>Workshop and Event Facilitator</b>
<b>Reporting to</b>	Michael Chew, Global Coordinator
<b>Email</b>	michael.chew@monash.edu
<b>Number of interns required</b>	1 – 2
<b>Position Description</b>	<p>We seek a motivated person(s) to fill the intern role of Workshop and Event Facilitator at the Climate Resilience Media Exchange (CRME), who will be responsible for supporting the workshop and exhibition event program in Melbourne and potentially at overseas sites.</p> <p>Photo-voice workshops series with youth and community groups in Melbourne include: basic photography concepts, ideation processes, photographs selection and improvement, developing text. Exhibition events may include photographic exhibitions or other forms of public engagement.</p>
<b>Intern's Duties</b>	<ul style="list-style-type: none"> <li>• Workshop facilitation and curriculum development</li> <li>• Workshop coordination and outreach</li> <li>• Event logistics and management</li> <li>• General administration</li> <li>• Input into CRME strategic directions</li> </ul>
<b>Skills/Experience Required</b>	<p><u>Essential</u></p> <ul style="list-style-type: none"> <li>• Interest and motivation in the project</li> <li>• Facilitation/teaching experience</li> <li>• Event management experience</li> <li>• Photography experience</li> <li>• Excellent communication skills (oral and written)</li> <li>• Ability to work independently as well as part of a team</li> </ul> <p><u>Desirable</u></p> <ul style="list-style-type: none"> <li>• Experience/knowledge in sustainability/development</li> <li>• Experience/knowledge in using visual creativity for social change</li> <li>• Experience in a start-up environment</li> </ul> <p>Note: No knowledge of photo-voice method is required</p>
<b>Benefits to the intern</b>	<ul style="list-style-type: none"> <li>• Gain experience delivering youth workshops, and develop photo-voice training experience</li> <li>• Be part of the project coordination team and help shape the project</li> <li>• Receive individual support and guidance</li> <li>• Receive a tailored reference/referee statement acknowledging your valuable contributions</li> <li>• Potential opportunities to attend project activities in Bangladesh and China in 2018 (TBC)</li> </ul>
<b>Successful Project Outcome(s)</b>	<ul style="list-style-type: none"> <li>• Workshop program developed and delivered</li> <li>• Exhibition program developed and delivered</li> <li>• High impact photo-stories collected from participants</li> </ul>

<b>Position Title</b>	<b>China and Bangladesh Ambassadors</b>
<b>Reporting to</b>	Michael Chew, Global Coordinator
<b>Email</b>	michael.chew@monash.edu
<b>Number of interns required</b>	1 each
<b>Position Description</b>	We seek a motivated person(s) to fill the intern role China and Bangladesh Ambassadors. These roles provide language and communications engagement with project activities in China and Bangladesh respectively. Note that it is expected to have a different person in each role – ie dual Bangla / Chinese proficiency is not necessary.
<b>Intern's Duties</b>	<ul style="list-style-type: none"> <li>• Translations of Chinese / Bangla photo-stories and documents</li> <li>• Engagement and liaison with project partners and communities in China and Bangladesh</li> <li>• Engagement and liaison with Chinese / Bangladeshi communities' in Australia</li> <li>• Input into CRME strategic directions</li> </ul>
<b>Skills/Experience Required</b>	<u>Essential</u> <ul style="list-style-type: none"> <li>• Interest and motivation in the project</li> <li>• Excellent English / Chinese or English / Bangla written and oral fluency</li> <li>• Experience working across cultures</li> <li>• Ability to work independently as well as part of a team</li> </ul> <u>Desirable</u> <ul style="list-style-type: none"> <li>• Experience/knowledge in sustainability/development</li> <li>• Experience/knowledge in photography / visual media</li> <li>• Experience in a start-up environment</li> </ul>
<b>Benefits to the intern</b>	<ul style="list-style-type: none"> <li>• Develop your cross cultural engagement skills by being the bridge between communities</li> <li>• Be part of the project coordination team and help shape the project</li> <li>• Receive individual support and guidance</li> <li>• Receive a tailored reference/referee statement acknowledging your valuable contributions</li> <li>• Potential opportunities to attend project activities in Bangladesh and China in 2018 (TBC)</li> </ul>
<b>Successful Project Outcome(s)</b>	<ul style="list-style-type: none"> <li>• All project documents translated effectively</li> <li>• Effective and on-going engagement with participants in China and Bangladesh</li> <li>• Effective engagement with Chinese and Bangladeshi communities in Australia</li> </ul>

## General information for all positions

<b>Position timeframe</b>	3month, Late-March– Late-June 2018, with potential to extend by mutual agreement
<b>Hours per week</b>	Approximately 4-8 hrs (this is anticipated to be highly variable depending on workshops and other program activities)
<b>Work environment and remuneration</b>	Flexible hours and location, most work will be done remotely, though some preference to applicants in Melbourne to allow for face to face meetings. All internships are unpaid positions.
<b>Application Process</b>	<p>Sunday 18th March, 11:59pm – Applications Due</p> <p><u>Application Process</u></p> <ul style="list-style-type: none"> <li>• Brief (1-2 page) statement addressing the selection criteria and describing why you are interested in applying.</li> <li>• Please include links to any relevant projects you have been involved with</li> <li>• Brief CV with details of two current references</li> <li>• You may apply for more than one position if your interests, skills and time capacity allow</li> </ul> <p><u>Please note:</u></p> <ul style="list-style-type: none"> <li>• We aim to shortlist and interview applicants during March 12-13th, at a central Melbourne location, please be available during this time</li> <li>• While due consideration has been paid to each role, the availability, scope, duties, and timeframe of each role may change and is open to mutual agreement with successful applicants</li> </ul> <p>Applications and/or inquiries: <a href="mailto:michael.chew@monash.edu">michael.chew@monash.edu</a> / 0468 477 874</p>

## Collaborating Partners Wanted

In addition to the internships, we are seeking out like-minded groups and organisation to partner with to generate and share photo-stories. In particular:

1. Photography workshops – we are seeking existing youth groups or classes to run the photography workshops with. There is no charge.
2. Disseminating photo-stories – we have a growing archive of photo-stories that need to be shared to inspire environmental action! We seek partners who can help us share these.

Please contact Michael if you are interested in discussing further.

*Photo- story development in Bangladesh:*



## 9.5 Appendix B5 - Partner organisation

Table 31 - All contacted partner organisations

Country	Site	Organisation	Status
Australia	Melbourne	Save the Children Australia	Meeting
Australia	Melbourne	Livewell Yarra	Partner
Australia	Melbourne	Australian Youth Climate Coalition	Partner
Australia	Melbourne	Yarra Council	Meeting
Australia	Melbourne	Melbourne Council	Contacted
Australia	Melbourne	Moreland Council	Contacted
Australia	Melbourne	MEFL	Meeting
Australia	Melbourne	CERES	Meeting
Australia	Melbourne	Youth Leading the World/Ozgreen	Meeting
Australia	Melbourne	MSI	Meeting
Australia	Melbourne	Monash-Oxfam	Contacted
Australia	Melbourne	Environmental Education Victoria	Partner
Australia	Melbourne	Sustainability Victoria	Meeting
Australia	Melbourne	Australian Religious Response to Climate Change	Partner
Australia	Melbourne	St Louis Primary School	Partner
Australia	Melbourne	Mount Waverley Secondary College	Partner
Australia	Melbourne	Sustainable Living Foundation	Partner - ongoing
Australia	Melbourne	Monash Student Association	Partner
Australia	Melbourne	MADA	Partner
Bangladesh	Dhaka	International Centre for Climate Change and Development	Partner - ongoing
Bangladesh	Dhaka	Muslim Aid	Meeting
Bangladesh	Dhaka	NARRI consortium	Contacted
Bangladesh	Dhaka	Save the Children Bangladesh	Partner - ongoing
Bangladesh	Dhaka	Community Participation & Development	Partner - ongoing
Bangladesh	Dhaka	BBC Media Action - Climate Asia	Meeting
Bangladesh	Dhaka	JAAGO Foundation Korail	Partner - ongoing
Bangladesh	Dhaka	JAAGO Foundation Rayer Bazaar	Partner - ongoing
Bangladesh	Dhaka	Project Be	Partner
Bangladesh	Dhaka	North South University - ESM Faculty	Partner
Bangladesh	Dhaka	Independent University Bangladesh - Earth Club	Partner - ongoing
China	Beijing	Institute for Public and Environmental Affairs, Beijing.	Meeting
China	Beijing	Beijing Food Sovereignty Alliance and GMO research Chen I-Wan.	Meeting
China	Beijing	Friends of Nature	Partner - ongoing
China	Beijing	Save the Children China	Meeting
China	Beijing	Shanshui	Meeting
China	Beijing	World Futures Council	Meeting
China	Beijing	Greenpeace	Contacted
China	Beijing	GEI	Contacted
China	Beijing	EnviroFriends	Contacted
China	Beijing	Wild China	Contacted
China	Beijing	Green Beagle	Meeting
China	Beijing	Global Village Beijing	Contacted
China	Beijing	Institute for Environment and Development	Contacted
China	Beijing	Nature University	Contacted
China	Beijing	China Youth Climate Action Network	Meeting
China	Chengdu	Chengdu Urban Rivers Association	Meeting
China	Chengdu	WWF Chengdu	Contacted
China	Chengdu	Conservation International China	Contacted
China	Chengdu	Catherine Serret	Contacted
China	Chengdu	Heifer China	Contacted
China	Chengdu	Non Profit Incubator Chengdu	Contacted
China	Chengdu	Dr Shaowen	Contacted
China	Hangzhou	Zhejiang University of Media and Communications	Partner - ongoing
China	Hangzhou	Green Zhejiang	Meeting
China	Shanghai	Joint US-China Collaboration on Clean Energy (JUCCCE).	Contacted
China	Shanghai	Sprout Lifestyle, Shanghai.	Contacted
China	Shanghai	Green Initiatives, Shanghai, and its director Nitin Dani.	Meeting
China	Shanghai	Shanghai Oasis	Contacted
China	Kunming	East Asia Institute of Visual Anthropology	Contacted
China	Kunming	Yunnan Environment Development Institute	Contacted
China	Kunming	Yunnan Participatory Research Association,	Contacted
China	Kunming	Green Kunming	Contacted
China	Kunming	Yunnan Green Development Foundation	Contacted
China	Xining	Lumo Tsering	Contacted
China	Beijing	CRCC Asia	Partner

Table 32- Partner Organisations contact summary

Country	Status	Total
Australia	Contacted	19
Australia	Meeting	16
Australia	Partner	9
Australia	Partner – ongoing	1
Bangladesh	Contacted	11
Bangladesh	Meeting	10
Bangladesh	Partner	8
Bangladesh	Partner – ongoing	6
China	Contacted	35
China	Meeting	13
China	Partner	3
China	Partner – ongoing	2
Total	Contacted	65
Total	Meeting	39
Total	Partner	20
Total	Partner – ongoing	9

Table 33 - Partner organisations - Top level and details

Partner	Acronym	Country	Details
Australian Youth Climate Coalition	AYCC	Australia	The Australian Youth Climate Coalition is Australia's largest youth-run organisation, our mission is to build a movement of young people leading solutions to the climate crisis. Young people have to most to lose from global warming, but we also have a lot to gain. Climate change is our best opportunity to create a world that works for everyone, not just a few.
Livewell Yarra	Livewell	Australia	The Livewell Project has been created to help you reduce your carbon footprint while maintaining or enhancing your wellbeing. Livewell began in the City of Yarra in inner Melbourne as an action research project of the Cooperative Research Centre (CRC) for Low Carbon Living (a national consortium of universities, the CSIRO, businesses and government bodies). It was undertaken through Curtin University and supported by Yarra Council and Yarra Energy Foundation.
Save the Children -Bangladesh	Save	Bangladesh	Save the Children's mission is to inspire breakthroughs in the way the world treats children, and to achieve immediate and lasting change in their lives. We have been working in Bangladesh since 1970 and today reach over 15 million people each year. With a staff of over 800 and a network of more than 100 partners, Save the Children is one of the largest child-rights organizations in Bangladesh.
International Centre for Climate Change and Development	ICCCAD	Bangladesh	The aim of ICCCAD is to develop a world-class institution that is closely related to local experience, knowledge and research in one of the countries that is most affected by climate change. It is our mission to gain and distribute knowledge on climate change and, specifically, adaptation and thereby helping people to adapt to climate change with a focus on the global south.
Community Participation & Developmen	CPD	Bangladesh	Community Participation & Development a non-profit and non-political organization has been working since 1993. It was initiated by a group of local enthusiastic social workers with a view to uplift the social and economic conditions of distressed women and Children of different areas of Bangladesh through child care and pre-schooling.
JAAGO Foundation	JAAGO	Bangladesh	JAAGO Foundation is a movement initiated by the youth of Bangladesh dedicated to help the impoverished people of Bangladesh. JAAGO Foundation hopes to break the cycle of poverty through the education and rebuilding of the nation.
Project Be	PB	Bangladesh	It's kind of Fun to do the impossible! We help the youth discover their ideas and dreams into bold actionable projects and encourage and support them through successful execution.
Friends of Nature	FoN	China	Friends of Nature (FON) is the oldest environmental NGO in China. We have been working for over a decade to promote environmental awareness about China,s most pressing environmental problems. In particular, we have focused on protecting endangered species such as the Tibetan antelope and the snub-nosed monkey; environmental education through camps, field trips, and most importantly, teacher-training; and awareness-raising campaigns such as photo exhibitions and publications.
Zhejiang University of Media and Communications	ZUMC	China	Zhejiang University of Media and Communications is one of the two leading universities in China specializing in cultivating professionals, talents and other specialists for the broadcast industry and other industries in media and communications. For nearly 40 years, ZUMC has provided central and local broadcast and media industries with a myriad of specialized talents. Almost 10,000 full-time students are currently studying in over 50 programmes at the 14 Colleges and Schools of ZUMC.

Table 34- China partner scoping documentation

Name	Location	Web	Status?
Peking university	Beijing	?	
Institute for Public and Environmental Affairs, Beijing.	Beijing	<a href="http://www.ipe.org.cn/en/about/about">http://www.ipe.org.cn/en/about/about</a>	wed 11am, 6-1-91, Jianguomenwai
Beijing Food Sovereignty Alliance and GMO research Chen I-Wan.	Beijing	Chenny	coordinating meeting times - wed 4
Friends of Nature	Beijing		sent initial email
Save the Children China	Beijing	<a href="https://china.savethechildren.net/cont">https://china.savethechildren.net/cont</a>	Fri/ mon?
Shanshui	Beijing	<a href="http://www.shanshui.org/">http://www.shanshui.org/</a>	thurs 10:00 21st in our office?
World Futures Council	Beijing	Boping	thurs 3pm 21 afternoon beijing
Greenpeace	Beijing	<a href="http://www.greenpeace.org/eastasia">http://www.greenpeace.org/eastasia</a>	currently corresponding with calvin
GEI	Beijing	<a href="http://www.geichina.org">http://www.geichina.org</a>	sent initial email
EnviroFriends	Beijing	<a href="http://www.envirofriends.ngo.cn/">http://www.envirofriends.ngo.cn/</a>	sent initial email, email doesn't wo
Wild China	Beijing	<a href="http://www.wildchina.cn/">http://www.wildchina.cn/</a>	sent initial email+reminder 15/1
Green Beagle	Beijing		wed 20th 2pm
Global Village Beijing	Beijing	<a href="http://www.gvbchina.org.cn/">http://www.gvbchina.org.cn/</a>	sent initial email+reminder 15/1
Institute for Environment and Development	Beijing	<a href="http://www.ied.cn/en/node/156">http://www.ied.cn/en/node/156</a>	sent initial email+reminder 15/1
Nature University	Beijing		sent initial email+reminder 15/1, cc
China Youth Climate Action Network	Beijing	<a href="http://www.cycan.org">www.cycan.org</a>	sent initial email+reminder 15/1
BBC Media Action - Climate Asia	Beijing		get contact from arif
Chengdu Urban Rivers Association	Chengdu	<a href="http://www.rivers.org.cn/html/index">http://www.rivers.org.cn/html/index</a>	sent initial email 17/1
WWF Chengdu	Chengdu		sent initial email 17/1
Conservation International China	Chengdu	(028) 6155 7250 <a href="http://www.conser">http://www.conser</a>	sent initial email 17/1
Catherine Serret	Chengdu		sent initial email
Heifer China	Chengdu	<a href="http://www.heiferchina.org/">http://www.heiferchina.org/</a>	trying to contact ngos through him,
Non Profit Incubator Chengdu	Chengdu	<a href="http://npi.org.cn/">http://npi.org.cn/</a>	resent again 15/1
Dr Shaowen	Chengdu		in Ya'an, well connected with unive
Chongqing University	Chongqing	?	
Catherine Serret	France/Chengdu	<a href="http://www.globalnomad-services.com">www.globalnomad-services.com</a>	asking about ngo contacts
Green Peace	Hangzhou	<a href="http://www.greenzhejiang.org/">http://www.greenzhejiang.org/</a>	Asan is contacting on my behalf
Zhejiang University of Media and Communications	Hangzhou		Li's friend... asking Zhejiang Univers
Green Zhejiang	Hangzhou	<a href="http://www.greenzhejiang.org/">http://www.greenzhejiang.org/</a>	can meet, through asan
Zhejiang University of technology	Hangzhou		
Zhejiang University	Hangzhou		
Joint US-China Collaboration on Clean Energy (JUCCCE).	Shanghai	<a href="http://juccce.org">http://juccce.org</a>	skyping
Sprout Lifestyle, Shanghai.	Shanghai	<a href="http://www.sproutlifestyle.com/">http://www.sproutlifestyle.com/</a>	replied with tips, replied
Green Initiatives, Shanghai, and its director Nitin Dani.	Shanghai	<a href="http://greeninitiatives.cn/">http://greeninitiatives.cn/</a>	yes, happy to visit, email closed to c
Shanghai Oasis	Shanghai	<a href="http://www.oasiseco.org/about.php?">http://www.oasiseco.org/about.php?</a>	replied - CC not priority, most staff
School of Geographic Sciences East China Normal University	Shanghai	Prof Xia Habeng	got contact from diana H la trove as
East Asia Institute of Visual Anthropology	Kunming	<a href="http://www.pixelfirma.de/archive/ea">http://www.pixelfirma.de/archive/ea</a>	judith?
Yunnan Environment Development Institute	Kunming	<a href="http://www.yedi.org.cn">http://www.yedi.org.cn</a>	sent initial email
Yunnan Participatory Research Association,	Kunming	<a href="http://www.ynpra.com/">http://www.ynpra.com/</a>	have received email.... now what?
Green Kunming	Kunming	<a href="http://www.greenkm.org/">http://www.greenkm.org/</a>	sent initial email
Yunnan Green Development Foundation	Kunming	<a href="http://www.ygf.vn.cn/">http://www.ygf.vn.cn/</a>	sent initial contact online form
Yunnan EcoNetwork	Linjian	<a href="http://china-developmentbrief.cn/directory/yunnan-econetw-%E4%BA%9">http://china-developmentbrief.cn/directory/yunnan-econetw-%E4%BA%9</a>	
Lumo Tsering	Xining		introducing in chengdu, emailed 15

Table 35 - China partner scoping photographic documentation



Green Beagle, Xiaoxia He, Associate



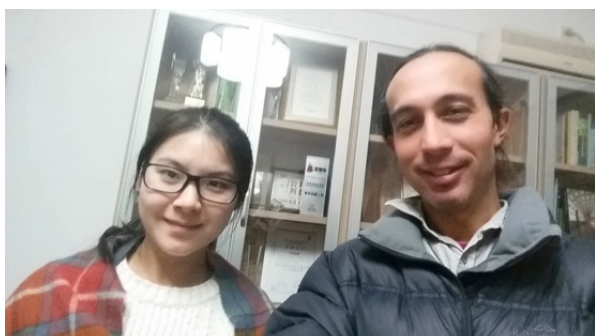
World Futures Council, Beijing, Boping China Director



ShanSui, Community Program Team



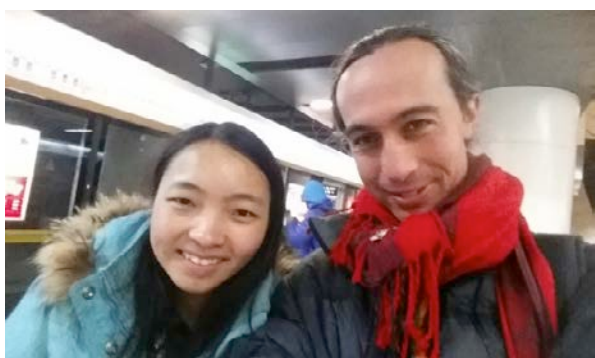
Green Zhejiang, Mrs Xia Xue, Director



IPE, Yali Huang, Communications Officer



Friends of Nature, Low Carbon Household Team



CYCAN, Lan Mei, Director




Save the Children China, Dr. Jia Ying, Shanghai Program Manager

## 9.6 Appendix B6 - Crowdfunding

StartSomeGood Explore Search Start a Project Log In

### Portraits of Change - Youth Photo-voice in Dhaka

Dhaka, Bangladesh Climate Resilience Media Exchange



**\$5,495**  
Raised of \$2,700 AUD

Successfully funded on Apr 27, 2017

71 supporters

ARTS & CULTURE COMMUNITY ENVIRONMENT

EMBED WIDGET




About Supporters

#### About This Project

#### Our Project

In May 2017, Australian photographers and environmentalists Michael Chew and Emily Crawford will go to Dhaka, to run photo-voice workshops to empower youth in climate-vulnerable communities in Bangladesh. Photo-voice is a participatory action-research method combining photography workshops with social action and community engagement.

Working with youth groups in various urban locations within Dhaka, Bangladesh, these workshops and resulting exhibitions will provide valuable spaces for expression and action over climate change by and for the people who experience it first hand. They will also provide photography and social action training, and raise much needed funds for organisations who work tirelessly with some of Dhaka's poorest youths on an ongoing basis.

#### Rewards

<b>Giant thank you!</b>	\$15.00
A BIG thank you! - shouted out across social media and included in video resulting from trip. We love you.	97 left
<b>Photo-story Postcard</b>	\$25.00
A beautiful postcard of students work with a message of thanks from one of the young Bangladeshi participants, or from Michael & Emily. PLUS digital shout out.	40 left
<b>5 pack of Photo-story Postcards</b>	\$35.00
5 beautiful postcards of students work, along with a message of thanks from one of the young Bangladeshi participants, or from Michael & Emily. PLUS digital shout out.	29 left
<b>ARTISAN MADE - Level 1</b>	\$40.00
Choose either a natural soap of a bhooli leaf garland and one other thing from Level 1! PLUS a postcard of student's work & thank you shout out.	19 left
<b>ARTISAN MADE - Level 2</b>	\$60.00
Choose from Level 2! PLUS a postcard of student's work & thank you shout out.	10 left
<b>Land and People Photo Book</b>	\$80.00
A gorgeous hardcover photography book that Michael designed and produced based on distilling a year's worth photography in Bangladesh - 80 pages of beautiful images and stories. PLUS a postcard of student's work & thank you shout out.	12 left
<b>COMBO book and artisan made</b>	\$120.00
Land and People Photo Book PLUS Artisan Level 1 PLUS a postcard of student's work & thank you shout out.	


#### Why it matters, and how you can help

As researchers, environmentalists and artists, we believe that one of the biggest barriers to positive change in the fight against Climate Change and Poverty is **disconnection**. Disconnection from the impacts, the solutions, and in particular the people who are making change themselves. **Art and Storytelling** have a powerful ability to build connections, foster engagement and empathy, and hence contribute to building climate resilience and fostering positive social and environmental change.

ood Explore Search

### Climate Action Photo Pen-pals

Dhaka, Bangladesh Portraits of Change



**\$3,835**  
Raised of \$3,000 AUD

Successfully funded on Jul 13, 2018

54 supporters


ARTS & CULTURE CHILDREN & YOUTH ENVIRONMENT

EMBED WIDGET


About Supporters

#### About This Project

In August 2018, photographer Michael Chew and researcher Agam Mahul will return to Dhaka, Bangladesh, to run photography workshops which will empower youth to take environmental action in climate-vulnerable urban communities in Bangladesh. To support these participants, we'll be connecting them to youth in Melbourne so that they can learn from each other, and with local youth mentors to give them the inspiration and funds to develop a real climate action project in their own community.



These workshops and resulting local projects will provide crucial opportunities for expression and action over climate change by and for the people who experience it first hand. They will also provide photography skills, community organising training, and raise much needed funds for organisations who work tirelessly with some of Dhaka's poorest youths on a daily basis.




#### Rewards

<b>Giant thank you!</b>	\$15.00
A BIG thank you! - shouted out across social media and included in video resulting from trip. We love you.	93 left
<b>Photo-story Postcard</b>	\$25.00
A beautiful postcard of students work with a message of thanks from one of the young Bangladeshi participants, or from Michael & Agam. PLUS digital shout out.	42 left
<b>5 pack of Photo-story Postcards</b>	\$35.00
5 beautiful postcards of students work, along with a message of thanks from one of the young Bangladeshi participants, or from Michael & Agam. PLUS digital shout out.	26 left
<b>ARTISAN MADE - Level 1</b>	\$50.00
Choose from natural soaps, wallets, bangles and writing materials from Level 1! PLUS a postcard of student's work & thank you shout out.	11 left
<b>ARTISAN MADE - Level 2</b>	\$70.00
Choose from Level 2 - scarves, T-shirts, cloth...! PLUS a postcard of student's work & thank you shout out.	18 left
<b>Land and People Photography Book</b>	\$80.00
A gorgeous hardcover photography book that Michael designed and produced based on distilling a year's worth photography in Bangladesh - 80 pages of beautiful images and stories. PLUS a postcard of student's work & thank you shout out.	16 left
<b>ARTISAN MADE Level 3</b>	\$150.00
Choose from level 3 - Artisan Level Personally curated from luxurious hand made textiles - think of us as your personal Dhaka shoppers. Please email Agam if you require more examples of options. PLUS a postcard of student's work & thank you shout out.	5 left
<b>Bangladesh TRIP</b>	\$600.00
Bangladesh visit - accompany Michael and Agam as they conduct the photo workshops in Bangladesh.	

#### Why it matters, and how you can help

While our whole world faces climate change, we do it disproportionately - with countries like Bangladesh being cyclones, sea level flooding, droughts, despite hardly putting themselves, in contrast to heavy consumption and pollution in places like Australia. The comparisons below show many contrasts between the countries - relative land sizes, population, and how many extra earths we would require if everyone on the planet lived at the consumption rate of an average person from this country.



Aside from these differences, in both countries there are inspiring environmental change-makers and local knowledge for addressing our common yet differentiated ecological issues. In particular, working with youth in both countries we know the power of their ideas to challenge 'business as usual' thinking - and it's essential these new ideas that are needed could need.

Rewards Details Supporters

Figure 168 - Crowdfunding campaign home page (left-2017, right-2018)

# 9.7 Appendix B7 - Partner Notes Extract


<div>China Notes Nov 2017</div> <div>Research Questions</div> <div>a. How does participatory visual dialogue between global urban communities assist with building engagement with urban climate resilience? (environment)</div> <div>b. What are the relationships between human and ecological well-being that emerge across the sites through participatory practice?</div> <div>Monday 20 nov</div> <div>Super late night, and super early start (3:10 / 6am @ )</div> <div>Moment when the (semi-cool) guy who hadn't been paying attention reflected and stated that he was probably a "nurturer" type</div> <div>I love teaching</div> <div>Sat 18<sup>th</sup> Nov</div> <div>Great workshop with CRCC – amazing to be able to speak directly to people and see the lightbulbs going off</div> <div>Managed it DESPITE my phone breaking this morning –</div> <div></div> <div>G/:</div> <div>Workshop address?</div> <div>subdist/contacts/Volunteers for tonight?</div> <div>CRCC adapt presentation</div> <div>Post-Workshop Actions:</div> <div>Journalism Club</div> <div>Sub-district River Group</div> <div>CRCC</div> <div>Second workshop</div> <div>Exhibition</div> <div>Exhibition Proposal form – Translate as appropriate Chau</div> <div>Online evaluation</div> <div>June participants – Ginny collecting on her return</div> <div>Nov participants – Chau collecting before Dec 1</div> <div>Form link:</div> <div>https://www.cognitofirms.com/China/Beijing北京叙事摄影问卷调查</div> <div>For altering/viewing form entries:</div> <div>Web:</div> <div>https://www.cognitofirms.com/Login</div> <div>info@greenphotovoice.org</div> <div>Password:</div> <div>GreenPhotoVoice2017#Me1</div> <div>Admin/Coordination/Communication</div> <div>Recover workshop documents from 2016, June 2017 (Photobook) and scan – Ginny</div> <div>Timeframe: can try to use a Google doc:</div> <div>https://docs.google.com/spreadsheets/d/1llh7zfn0J-u12DFeyXjMacD13RbGFwq1MEYCEAGM/edit#gid=1749518802</div> <div>BEIJING – Nature</div> <div>Date</div> <div>Agriculture Workshop 1</div> <div>Agriculture Workshop 2</div> <div>CRCC Asia</div> <div>Wechat mee</div> <div>Tues Nov</div> <div>CRCC Asia</div> <div>Sat Dec</div> <div>Photostory by</div> <div>Photovoice Competit</div> <div>Online cou</div> <div>Choose</div> <div>Long Term ideas</div>	<div>Sister schools with zero waste Got through it</div> <div>program</div> <div>See others in email below.</div> <div>Mon 13<sup>th</sup> Nov</div> <div>Sun 12<sup>th</sup> Nov</div> <div>Fri 17<sup>th</sup> Nov</div> <div>Fri 17<sup>th</sup> Nov</div> <div>Fri 17<sup>th</sup> Nov</div> <div>Friday 10 nov</div> <div>The first photoclass, the university class, 6 in the room, waiting 30min, a 7th joins us... the dissipating energy of the small quiet, mute gathering</div> <div>The 'Propaganda Minister' in attendance</div> <div>Thurs 9 Nov</div> <div>Interview with intern. In china people like interactivity... Looking at the smartphone next to the worn pile of photos / book.</div> <div>The photovoice app / etherrealising photo-stories /</div> <div>Intern – send workshop outline for school</div> <div>Wed 8 Nov</div> <div>The worn-down cleaner woman sweeping the floors of FOV office, as the sound of coffee grinding in the air</div> <div>Tues 7 Nov</div> <div>Interns – thursday 10am interview.</div> <div>Workshops- 6:30- 9pm. Lazycat 11, people coming, 3 previous, other publicity. Send link. China Agriculture Uni, 10-15. Beijing</div> <div>Waste event – portraits</div> <div>Timeframe</div> <div>Online course</div> <div>collecting responses online form – &gt; will send</div> <div>Form alterations</div> <div>1. Reduce your energy consumption at work or home, through adjusting air conditioner between 20 – 28C</div> <div>Already Doing / Will do / Will Consider / Not now</div> <div>Meeting 2 Nov</div> <div>Timeframe Nov 2 – 18<sup>th</sup></div> <div>Collection and evaluation of JUNE photovoice program</div> <div>Collecting photo-stories, evaluation of process.</div> <div>Didn't work because of FOV Internal restructuring, Intern process change</div> <div>Wechat competition – 1/2/3 prizes. 10 encouragement prizes</div> <div>2<sup>nd</sup> round not many people – got lost in crowd/funding drives</div> <div>analytics – photo com wechat article 10k read, less than 1000 votes</div> <div>Voting was effective</div> <div>&gt;Ginny send photostories/captions</div> <div>*add to Zero waste program kit?</div> <div>&gt;make online evaluation form for past participants</div> <div>&gt;ethics-&gt; add to online form</div> <div>&gt;check budget</div> <div>Incentive – certificate? What worked?</div> <div>What didn't work and how to improve?</div> <div>Upcoming</div> <div>What are current FOV activities? Relating to dialogue program</div> <div>What are your current FOV activities?</div> <div>Landscape design</div> <div>Online course</div> <div>Capacity – Intern</div> <div>Budget – 2400+1200?</div> <div>Workshops through University</div> <div>Tues 14<sup>th</sup> Nov</div> <div>The 'Propaganda Minister's gathering, the chartered bus taking us to the fancy gallery location, 46 people expecting to sit back and watch the 'Documentary photography lecture'.</div>	<div>North Ave</div> <div>#5531377</div> <div>1:35am – flight</div> <div>11:15pm – airport</div> <div>9pm – bus Shanghai Hongqiao</div> <div>8:30 – arrive SH</div> <div>7:30pm leave HZ</div> <div>5:30am</div> <div>5:50am</div> <div>6:14</div> <div>6:56am</div> <div>7am</div> <div>ZUNC</div> <div>Mon morning/afternoon UG, tue morning PG, fri morning UG/PG, afternoon UG</div> <div>4x same upgrad classes</div> <div>2x pgrad class large</div> <div>13989843536</div> <div>upgrad- 3x 40min (2hrs, with break)</div> <div>pgrad – tues/fri morn 80 min.</div> <div>bring in photo on their phone, email.</div> <div>weize rd station – sun lunch</div> <div>Data – need to get the class sheets</div> <div>Volunteer recruitment?</div> <div>Before selfie survey – environmental actions</div> <div>http://www.ucl.ac.uk/global-social-media/research-team</div> <div>https://theconversation.com/us/topics/selfies-8036</div> <div>Selfie intervention</div> <div>After selfie survey</div> <div>Environmental attitudes</div> <div>surveys</div> <div>Critical discussion:</div> <div>https://www.researchgate.net/post/Do-you-know-a-good-questionnaire-to-assess-sustainable-attitudes-or-environmental-attitudes</div> <div>http://evaluationtoolbox.net/a/index.php?option=com_content&amp;view=article&amp;id=58&amp;Itemid=154</div> <div>http://www.pewresearch.org/met-hodology/a-survey-research/questionnaire-design/</div> <div>Hi seasoned selfie researchers,</div> <div>Hi Selfie-City,</div> <div>Wow what an amazing project you've got there. Great visualisations too, could get lost in the site for hours!</div> <div>I was writing to pick your collective brains. I'm a design PhD researcher at Monash who's working on a multi-country environmental photovoice project (Bangladesh/China/Australia – http://greenphotovoice.org/), and recently I've been excited about including a SELFIE component – namely inviting participants of the workshops I'm running to take a selfie of them doing an environmental action (literally or metaphorically if impractical). However when I was doing research for selfies in this context I really couldn't find much at all, besides campaign-based approaches such as:</div> <div>http://www.scoop.co.nz/stories/W01710/S00256/share-your-selfie-for-climate-sweet-talkers.htm</div> <div>http://www.urbandsdg.uclg.org/selfies-campaign</div> <div>Would you be aware of any other relevant projects, and/or research in this area?</div> <div>Thanks in advance!</div> <div>All the best,</div> <div>Michael</div> <div>We'll meet again for our last meeting of the year on Friday 15 December, 5pm at the Alderman (134 Lyon St, East Brunswick). Put it in the diary!</div> <div>Asan 139 8984 3536</div> <div>15. If things continue on their present course, we will soon experience a major ecological catastrophe.</div>
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Figure 169 - Reflective diary extract, Friends of Nature (Beijing, site-cycle 7)

Making booklet for	<a href="https://drive.google.com/file/d/0B7BFJwMLaYulUW3JSTZxetRMUUV/view">https://drive.google.com/file/d/0B7BFJwMLaYulUW3JSTZxetRMUUV/view</a>	Don't worry put all the other things in further discussion – they're another phd Cognitive/emotional Forms of literacies – why languy Participants as the audience – be clear Workshop immersive/ toiet roll DIY	Urban resilience conference-CPD – pick a few examples for poster from china. Send examples to sarder Gobeshona/CBA – invite china.australia	<b>NS Next steps</b> Project background, official letter, monash Research background – benefit.. document August 26 <sup>th</sup> , video document, funding limitation monash, inked Best Extend to nov 15 Research timeframe oct – nov, Photovoice fb grp Book design –
<b>Meeting Jennifer and Bayazid 26<sup>th</sup> Oct</b>	<b>WORKSHOP 1 SLIDES:</b> <a href="https://drive.google.com/file/d/0B7BFJwMLaYulTGhZOGh6Uy1zVIU/view">https://drive.google.com/file/d/0B7BFJwMLaYulTGhZOGh6Uy1zVIU/view</a>	Note if you did not attend the second workshop you can still receive a certificate if you follow the above process.	<b>Process</b> core project with youth team Student research opportunities – send to sarder/jen	<b>Organising</b> - giving scope to design workshops to local team (supported/wildlife aims) - removing myself (almost) totally from logistics of matching up students etc... tension between losing touch personally and watching from more neutral perspective - political situation – v difficult to adapt, almost had to cancel workshops - Effective delegation/ownership in stage 2 – still being finished!
<b>Timeframe review</b> <b>Budgets and resources</b> People involved – Jennifer, Shahrin, Bayazid, Tanjila, Anika Coms platform – fb group, google doc		All the best, Michael	<b>Partners</b> CPD Project B/Enviro Club Jaago – disha second workshop BYEI	<b>Evaluation/celebration</b> Online form Thank you
<b>Exhibition and data collection</b> Advice/survey Online survey action planning	Thank you and don't hesitate to post questions to the group, or ask Bayazid Ahmed Tusher (who has done awesome jobs of co-organising the workshops!) All the best, Michael	<b>Monash</b> Off leave Cam meeting	Youth team busy till early december, the urbanisation conference is dec 6 that paper is being written for. skype early de google doc – disha	<b>Data collection</b> - couldn't do as much of student attitudes due to compressed timeframe both within+between classes - mentor portraits - video documentation – Ismar jumping on board
<b>Knowledge transfer and documentation</b> Process documentation – PDF photovoice kit Train the trainer workshop? photos Translations		<b>PHD SELF OTHER WORLD</b>	Timeframe photovoice	<b>Budget</b> - Provide remaina \$\$\$ Jennifer sat - Organisers – Jennifer record work JS on spreadsheet - Mentors – Jennifer discuss with takkados
<b>Actions</b> Put expenditure on google doc and send link Put jaago namelist on doc/link+send Put eval/survey/action plan questions on google doc	Meeting – Nishat Workshop 11am – 1pm	<b>REFLECTIONS/ LEARNINGS</b> <b>WHEN BACK DUMPING GROUND LITTLE (Mis) MOMENTS</b>	<b>Thurs Seminar presentation</b> Overview IUB – Adnan I will make prese	<b>What are next steps?</b> - recursive nature – downloading recipes, following them, then posting of results on website-test out with Green Planet Club early sept
Print guesthouse bill and sign	send agenda around people bring n	<b>Home</b> Mending pants Bathroom drain/cleanage Moshah hole	US report (write up monthly) – email jen to send me report fits within training part of project, also there education/adv online blogs component entrepreneur idea jen likes	<b>Admin/Actions</b> Photos How much leave remaining? 2019 Plan for completion
<b>Meeting Jennifer and Bayazid 26<sup>th</sup> Oct</b>	Project B – Rookpotha exhibition external photography TBC, feb	<b>Planning meeting</b> <b>ICCCAD youth team</b> Fabibha, Jennifer, Adnan Project – Khuna/Jessore Project – Glibika/doco Earth day – June 5 <sup>th</sup> USCentre 6 week project KREI-storybased approach. Day in the life approach	disha/me talk to Nazmul for icccad website hosting on ICCCAD website, but where for writing text responses. Online survey that isn't blocked in china? how to link with monash/MEI... start conversations early for more formal MOU disha social media making it an open source project... who else to talk to before I leave?	<b>Dhaka August Critical reflections</b> <b>Learnings/observations/whatever</b> - giving scope to design workshops to local team (supported/wildlife aims) - success of community mapping activity as idea generator - existing student literacy regarding local action (how common to hear 'forming a team' amongst the comments for action - tension between allowing messiness of self-selection in student projects vs choosing for them (former one out)... - jaago students largely self-motivated and many outside influence of volunteers (examples) - importance of informal setting for transforming/observations – eg with lenar jumping on board with video documentation - removing myself (almost) totally from logistics of matching up students etc... tension between losing touch personally and watching from more neutral perspective - political situation – special thanking of mentors for being involved despite the issues - challenges with delegating control to local
<b>Workshops</b> ICCCAD masters – 1 week / 2 weeks British Standard School – late nov/early dec International School Dhaka – Jan service day	Abu Environment Club Room booking - thurs 9-11am fb event environment club ecesmiub@gmail.com	30000 taka existing funds (Jennifer has) USAID program – sharing last report Sustainability/Long term Staffing – honorarium, they will cover through Jennifer Budget – name on receipt Coms platform – AYCC Slack, fb etc Printing Weekly seminar talk to zinat	BYEI training earth champions 2017– mentors from jg could be involved? Have ongoing projects that emerge from the teams. All volunteer run, core team of 20, not many bangladesh youth environmental organisations. Asking the question- what motivates you? Connect them with AYCC foto-pener – people list how much they need to build what they describe in foto story- connect with hwa-like thing send project website link with photos paul hawken speech	<b>Challenges</b> - challenges of exchange part – matching up bd students with from Australia, creating expectations that may not be able to be met - different times zones, etc... importance of informal coms means such as video market walk through with Julie - my rhetoric of 'showing the photos for your Australian friends' - post-colonial factors in pen-pal exchange... feeling that they will be more interested in being in contact than the other way around - materiality – laminated actual artifacts from the aust children which they could hold and sort through - selfies – comparing readiness of boys/girls - recursive nature – downloading recipes, following them, then posting of results on website-test out with Green Planet Club early sept
<b>Photostory Sharing (Exhibition/Online)</b> Reminder Nov 1 - Jaago – Getting back to us IUB project b feb? – Nov 15 <sup>th</sup> submissions / Nov 16 <sup>th</sup> meeting. Add Chelsea / Hsuan to group. Follow-up with Abu. NS – nov 9 <sup>th</sup> . Follow-up with Nishat (regarding reminder email to students-c'd Dept Chair) Online evaluation Budget per exhibition	Online evaluation Budget per exhibition	USAID program – sharing last report Sustainability/Long term Staffing – honorarium, they will cover through Jennifer Budget – name on receipt Coms platform – AYCC Slack, fb etc Printing Weekly seminar talk to zinat	<b>BYEI</b> training earth champions 2017– mentors from jg could be involved? Have ongoing projects that emerge from the teams. All volunteer run, core team of 20, not many bangladesh youth environmental organisations. Asking the question- what motivates you? Connect them with AYCC foto-pener – people list how much they need to build what they describe in foto story- connect with hwa-like thing send project website link with photos paul hawken speech	<b>Challenges</b> - challenges of exchange part – matching up bd students with from Australia, creating expectations that may not be able to be met - different times zones, etc... importance of informal coms means such as video market walk through with Julie - my rhetoric of 'showing the photos for your Australian friends' - post-colonial factors in pen-pal exchange... feeling that they will be more interested in being in contact than the other way around - materiality – laminated actual artifacts from the aust children which they could hold and sort through - selfies – comparing readiness of boys/girls - recursive nature – downloading recipes, following them, then posting of results on website-test out with Green Planet Club early sept
<b>Upcoming events/timeframe</b> CRME – till end of Nov, low Dec/Jan. exhibition feb. may return mid-year CBA? youth Gobeshona – Jan 7th Urbanisation USAID – end march 2018, with conference Climate champions future... youth component of LUCCC	Workshops How do your photo-stories and participation enhance dialogue? Measurement? The design of the workshops. Which workshop methodology worked best? Consider methodology: image only and image and narrative. What IMPACT does that have on you? How does it make you FEEL? How do you design for participation? Test in workshops. How does the location affect the workshop? Is there an opportunity to try an additional method recombination. Dont repeat the same workshops Evaluation methods Volunteers Environment Club Savio Have you hear of it... Project outline Workshops Collaborate with project Story exchange Sharing stories – Competition, exhibition, exchange (funds for prize) – think/feel/act	<b>Long term</b> ICCCAD staff member + volunteer 1 day/week exhibition in October? CBA conference send Jennifer - blurb	<b>BYEI</b> training earth champions 2017– mentors from jg could be involved? Have ongoing projects that emerge from the teams. All volunteer run, core team of 20, not many bangladesh youth environmental organisations. Asking the question- what motivates you? Connect them with AYCC foto-pener – people list how much they need to build what they describe in foto story- connect with hwa-like thing send project website link with photos paul hawken speech	<b>Challenges</b> - challenges of exchange part – matching up bd students with from Australia, creating expectations that may not be able to be met - different times zones, etc... importance of informal coms means such as video market walk through with Julie - my rhetoric of 'showing the photos for your Australian friends' - post-colonial factors in pen-pal exchange... feeling that they will be more interested in being in contact than the other way around - materiality – laminated actual artifacts from the aust children which they could hold and sort through - selfies – comparing readiness of boys/girls - recursive nature – downloading recipes, following them, then posting of results on website-test out with Green Planet Club early sept
<b>Resources and coms</b> Funds – \$3k, will return around 45k USAID covers – Jaago %, NS % -> receipts to Jennifer Volunteers – honoraria/voucher etc Cameras – email Mahmud re cameras to debu	USAID report – send Jennifer sat night	<b>Equipment</b> Charge Memory cards 24 Blackberries 9 digital cameras	<b>BYEI</b> training earth champions 2017– mentors from jg could be involved? Have ongoing projects that emerge from the teams. All volunteer run, core team of 20, not many bangladesh youth environmental organisations. Asking the question- what motivates you? Connect them with AYCC foto-pener – people list how much they need to build what they describe in foto story- connect with hwa-like thing send project website link with photos paul hawken speech	<b>Challenges</b> - challenges of exchange part – matching up bd students with from Australia, creating expectations that may not be able to be met - different times zones, etc... importance of informal coms means such as video market walk through with Julie - my rhetoric of 'showing the photos for your Australian friends' - post-colonial factors in pen-pal exchange... feeling that they will be more interested in being in contact than the other way around - materiality – laminated actual artifacts from the aust children which they could hold and sort through - selfies – comparing readiness of boys/girls - recursive nature – downloading recipes, following them, then posting of results on website-test out with Green Planet Club early sept
<b>IUB FB POST</b> Wow what a great photo workshop today! It was small but high quality! Thank you to those people who came and put so much time and effort into making your photo-stories. I was very impressed seeing the quality of the ideas and photos that you shared today.	Workshops & Data collection	<b>Exhibition</b> IUB or external Drik Banani Gallery 11 by Edge	<b>BYEI</b> training earth champions 2017– mentors from jg could be involved? Have ongoing projects that emerge from the teams. All volunteer run, core team of 20, not many bangladesh youth environmental organisations. Asking the question- what motivates you? Connect them with AYCC foto-pener – people list how much they need to build what they describe in foto story- connect with hwa-like thing send project website link with photos paul hawken speech	<b>Challenges</b> - challenges of exchange part – matching up bd students with from Australia, creating expectations that may not be able to be met - different times zones, etc... importance of informal coms means such as video market walk through with Julie - my rhetoric of 'showing the photos for your Australian friends' - post-colonial factors in pen-pal exchange... feeling that they will be more interested in being in contact than the other way around - materiality – laminated actual artifacts from the aust children which they could hold and sort through - selfies – comparing readiness of boys/girls - recursive nature – downloading recipes, following them, then posting of results on website-test out with Green Planet Club early sept
In the second half of the workshop I was also impressed by your ideas and enthusiasm behind the three action areas – 1) Exhibition on campus 2) Facebook story-sharing / engagement Two working groups were formed in these areas. Can the facilitators of each group please post your notes/ideas to the group (I think it was Chelsea Akbar Dayaboti and راسم) as a reminder to us all? there was some great ideas there!	<b>Risks</b>	<b>Equipment</b> Charge Memory cards 24 Blackberries 9 digital cameras	<b>BYEI</b> training earth champions 2017– mentors from jg could be involved? Have ongoing projects that emerge from the teams. All volunteer run, core team of 20, not many bangladesh youth environmental organisations. Asking the question- what motivates you? Connect them with AYCC foto-pener – people list how much they need to build what they describe in foto story- connect with hwa-like thing send project website link with photos paul hawken speech	<b>Challenges</b> - challenges of exchange part – matching up bd students with from Australia, creating expectations that may not be able to be met - different times zones, etc... importance of informal coms means such as video market walk through with Julie - my rhetoric of 'showing the photos for your Australian friends' - post-colonial factors in pen-pal exchange... feeling that they will be more interested in being in contact than the other way around - materiality – laminated actual artifacts from the aust children which they could hold and sort through - selfies – comparing readiness of boys/girls - recursive nature – downloading recipes, following them, then posting of results on website-test out with Green Planet Club early sept
Action Steps for everyone: (Please read carefully)	Research question – How does participatory visual dialogue build climate resilience? Climate resilience literacy	<b>Misc</b> Take photo team	<b>BYEI</b> training earth champions 2017– mentors from jg could be involved? Have ongoing projects that emerge from the teams. All volunteer run, core team of 20, not many bangladesh youth environmental organisations. Asking the question- what motivates you? Connect them with AYCC foto-pener – people list how much they need to build what they describe in foto story- connect with hwa-like thing send project website link with photos paul hawken speech	<b>Challenges</b> - challenges of exchange part – matching up bd students with from Australia, creating expectations that may not be able to be met - different times zones, etc... importance of informal coms means such as video market walk through with Julie - my rhetoric of 'showing the photos for your Australian friends' - post-colonial factors in pen-pal exchange... feeling that they will be more interested in being in contact than the other way around - materiality – laminated actual artifacts from the aust children which they could hold and sort through - selfies – comparing readiness of boys/girls - recursive nature – downloading recipes, following them, then posting of results on website-test out with Green Planet Club early sept
1) PHOTO-STORY SUBMISSION Your final photo-story submission is due by midnight on Wed 15th Nov. Please email them to: <a href="mailto:entropgravity@gmail.com">entropgravity@gmail.com</a> (either as word file/PDF) with your included TEXT. Note please include high resolution images (at least 4MP) so that I can print them in Australia (either embedded in file or separately. You can submit maximum of 3 photo-stories. Please include your full name and age in your submission. I will judge the best 3 photo-stories and send a special award certificate to these people.)	Questions	<b>Crowdfunding</b> Check paypal/stripe Send extra email	<b>BYEI</b> training earth champions 2017– mentors from jg could be involved? Have ongoing projects that emerge from the teams. All volunteer run, core team of 20, not many bangladesh youth environmental organisations. Asking the question- what motivates you? Connect them with AYCC foto-pener – people list how much they need to build what they describe in foto story- connect with hwa-like thing send project website link with photos paul hawken speech	<b>Challenges</b> - challenges of exchange part – matching up bd students with from Australia, creating expectations that may not be able to be met - different times zones, etc... importance of informal coms means such as video market walk through with Julie - my rhetoric of 'showing the photos for your Australian friends' - post-colonial factors in pen-pal exchange... feeling that they will be more interested in being in contact than the other way around - materiality – laminated actual artifacts from the aust children which they could hold and sort through - selfies – comparing readiness of boys/girls - recursive nature – downloading recipes, following them, then posting of results on website-test out with Green Planet Club early sept
2) ONLINE EVALUATION I will send via an email link. This is very important to complete for the research purposes	Changes: - Thinking more visually during fieldwork - Collecting action ideas based on their own photo-stories / others - Getting older youth demographic / greater background information (issues comparing with previous - Greater information regarding stakeholders for visualisation (example tension empirical/relational - Audience – general public / participant-audience - Process kit – adapting into visual PDF output and testing/before or after fieldwork? - Testing out immersive displays in Dhaka - photowall with progressive photos, jaago social media	<b>CPD Child Club</b> Photo-stories complete scan translate	<b>BYEI</b> training earth champions 2017– mentors from jg could be involved? Have ongoing projects that emerge from the teams. All volunteer run, core team of 20, not many bangladesh youth environmental organisations. Asking the question- what motivates you? Connect them with AYCC foto-pener – people list how much they need to build what they describe in foto story- connect with hwa-like thing send project website link with photos paul hawken speech	<b>Challenges</b> - challenges of exchange part – matching up bd students with from Australia, creating expectations that may not be able to be met - different times zones, etc... importance of informal coms means such as video market walk through with Julie - my rhetoric of 'showing the photos for your Australian friends' - post-colonial factors in pen-pal exchange... feeling that they will be more interested in being in contact than the other way around - materiality – laminated actual artifacts from the aust children which they could hold and sort through - selfies – comparing readiness of boys/girls - recursive nature – downloading recipes, following them, then posting of results on website-test out with Green Planet Club early sept
3) CERTIFICATES I have signed the Participation Certificates and these will be provided to all those who complete 1) + 2) by the deadline of Wed 15th Nov at the Next Meeting below.	Visual response Collected a lot PS data, now have to answer the questions Making me feel vocalability, what action does it take? Capture data as part of ideational stage responding to existing images Communication for development c Climate resilience literacy	<b>IUB group</b> Nov 30 to complete photo-stories, meet to discuss collect photo-stories by thurs 2pm	<b>BYEI</b> training earth champions 2017– mentors from jg could be involved? Have ongoing projects that emerge from the teams. All volunteer run, core team of 20, not many bangladesh youth environmental organisations. Asking the question- what motivates you? Connect them with AYCC foto-pener – people list how much they need to build what they describe in foto story- connect with hwa-like thing send project website link with photos paul hawken speech	<b>Challenges</b> - challenges of exchange part – matching up bd students with from Australia, creating expectations that may not be able to be met - different times zones, etc... importance of informal coms means such as video market walk through with Julie - my rhetoric of 'showing the photos for your Australian friends' - post-colonial factors in pen-pal exchange... feeling that they will be more interested in being in contact than the other way around - materiality – laminated actual artifacts from the aust children which they could hold and sort through - selfies – comparing readiness of boys/girls - recursive nature – downloading recipes, following them, then posting of results on website-test out with Green Planet Club early sept
4) NEXT MEETING - FOR EXHIBITION / ONLINE SHARING OF YOUR PHOTO-STORIES 12pm Thurs Nov 16th – ( Abu Marma Regesha / Farishta Shahid could you confirm venue in consultation with Bayazid Ahmed Tusher?) For inspiration: WORKSHOP 2 SLIDES:		<b>Jaago</b> Photographs taken, second workshop to be run text to be written -	<b>BYEI</b> training earth champions 2017– mentors from jg could be involved? Have ongoing projects that emerge from the teams. All volunteer run, core team of 20, not many bangladesh youth environmental organisations. Asking the question- what motivates you? Connect them with AYCC foto-pener – people list how much they need to build what they describe in foto story- connect with hwa-like thing send project website link with photos paul hawken speech	<b>Challenges</b> - challenges of exchange part – matching up bd students with from Australia, creating expectations that may not be able to be met - different times zones, etc... importance of informal coms means such as video market walk through with Julie - my rhetoric of 'showing the photos for your Australian friends' - post-colonial factors in pen-pal exchange... feeling that they will be more interested in being in contact than the other way around - materiality – laminated actual artifacts from the aust children which they could hold and sort through - selfies – comparing readiness of boys/girls - recursive nature – downloading recipes, following them, then posting of results on website-test out with Green Planet Club early sept

Figure 170 - Reflective diary extract, (ICCCAD compilation)

# Appendix C - Workshops

## 10.1 Appendix C1 - Recruitment

### *Participants wanted for an international climate justice photo-voice research project*

***Are you interested in global climate justice and/or photography?  
Be a part of the 'Climate Resilience Media Exchange'!***

#### **Climate Resilience Media Exchange (CRME) Project Summary**

The CRME is an action-research project that uses participatory photography to explore emerging grassroots responses to global climate impacts across urban communities in Bangladesh, China and Australia. As these community actions are often marginalised in their own cities and isolated from each other, the project will use visual story telling through photography to highlight these inspiring projects, support dialogue between these communities, with the intent of magnifying the impact and reach of these grassroots responses.

#### **Activities**

- Photography/Video workshops - Participants photo-document their engagement in local actions
- Reflections workshops – documenting the participants' ideas behind their images/video
- Interviews – gathering stories of change
- Site exhibitions – public exhibitions of participant photographs to raise awareness.
- Global cross-site dialogue- Inter-personally through skype, image based through photo exchange/web platform

#### **Your Involvement**

The project is in the planning/testing phase and we are seeking interested people for any of:

- Submitting photos and descriptions of local community-driven climate adaptation/mitigation/resilience building activities (due Oct 10<sup>th</sup>, details below)
- Participation in a photo-feedback trial workshop 2:30-5:30pm Melbourne, December 10<sup>th</sup> 2016 (details TBC)
- Contributing ideas and assisting the project generally (anytime, contact Michael below)

#### **Photograph Exchange Trial**

Project coordinator Michael Chew will be running trial workshops in China and Bangladesh in October-November, and will be taking across a number of trial photographs/videos of community climate resilience actions taken in Melbourne. He is seeking people involved in local environmental organisations/groups who would like to submit photographs/videos documenting their activities that could be shared with these communities who are also taking action in Bangladesh and China. This trial will help design the project activities next year. See below for submission details.

#### **Next Steps**

If you are interested in being involved, please contact Michael as soon as possible:

[Michael.chew@monash.edu](mailto:Michael.chew@monash.edu) / 0468 477 874

Example images below from the previous 'Portraits of Water' project that informs CRME project:

<http://portraitsofwater.wordpress.com>. Images on last page from exhibitions held earlier in 2016 as part of this project. Intro video: <https://www.youtube.com/watch?v=9LGaoS4sQM>

CRME is being developed as part of a PhD research through Monash University, Department of Design



#### **Media submission for October Trial Workshops**

The October workshops in China will test out some of the basic assumptions of the project and seek feedback from local partners over there. We will show photographs and stories from communities in Melbourne taking local action themselves. It is not a formal part of the data collection for the project. Please fill in this form to submit images for the Trial.

#### **Theme**

Climate resilience is a broad theme and for this project may cover any local activities which seek to directly enhance the resilience of a *community* (rather than an individual) to deal with climate change. Specific activities may include sustainable food production and consumption, waste management, energy, education, and advocacy.

#### **Description**

You are encouraged to write about the ideas behind the photographs, rather than simply describing what is going on. For examples please the Portraits of Water project link on previous page. Between 50 – 200 words.

#### **Media**

- Images: Please submit between 5-10 JPG files with *minimum* resolution 1920x1080 px, horizontal or vertical.
- Video: Please submit 2-5 clips in MP4/MOV format, between 30s- 2min duration

Full Name:

Organisation/Group:

Email:

Phone:

Motivation for participation:

Messages to share with partner organisations/communities in China:

[Image/Video 1z](#)  
Description

[Image/Video 6](#)  
Description

[Image/Video 2](#)  
Description

[Image/Video 7](#)  
Description

[Image/Video 3](#)  
Description

[Image/Video 8](#)  
Description

[Image/Video 4](#)  
Description

[Image/Video 9](#)  
Description

[Image/Video 5](#)  
Description

[Image/Video 10](#)  
Description

Submissions can be via sending a dropbox or other filesharing site link to [Michael.chew@monash.edu](mailto:Michael.chew@monash.edu). Full instructions on this will be provided on initial inquiry. Photographs need to be received by October 10<sup>th</sup>

Figure 171 - Livewell photo-story callout

## ***Participants wanted for global environmental photography project!***

***Are you interested in community environmental action, photography or story-telling?***

### **Project Background**

Join this new and exciting international project to learn how to use photography to tell stories of you and your community are taking local actions to address environmental and climate issues. You will be trained/supported in photo-storytelling and your photos can be shared with others in Australia and Bangladesh who are also taking environmental action.

### **Project Goals**

- To empower and connect urban communities from China, Australia and Bangladesh through photo-storytelling
- To produce powerful photo story outputs showing local environmental action to inspire others
- To develop research into participatory photography and cross-cultural story telling

### **Project Activities**

- *Photovoice workshops* – You will learn to use photos to show environmental actions.
- *Photo-writing workshops* - You will learn to develop your photos into photo stories
- *Online photo-sharing* – You will learn to share and connect with others using photo stories
- *Photo exhibition* – your photo stories will be exhibited publicly in China and Australia!

### **Participation benefits**

- Free program
- Increase your knowledge of photography
- Learn how to make photo-stories
- Meet others taking environmental action
- Signed certificate of participation
- Increase your international networks
- Exhibit your photos

### **Program details:**

- Sat 15<sup>th</sup> Oct 9-12pm – Workshop 1
- Sun 16<sup>th</sup> Oct 2-5pm – Workshop 2
- Sat 22<sup>nd</sup> Oct 9-5pm – Workshop 3
- Public exhibition – dates to be confirmed

The project is a trial action-research collaboration between Friends of Nature and Monash University in Melbourne Australia. There will be subsequent workshops and opportunities for involvement next year.

### **How to be involved**

Please complete the below by Mon 10<sup>th</sup> Sept, to <email>

#### **1. Your Details**

Name:

Date of Birth:

Address:

Telephone

Email:

Photography experience – Please circle (1=very low, 5=very high) 1 2 3 4 5

Environmental experience – Please circle (1=very low, 5=very high) 1 2 3 4 5

English language proficiency – Please circle (1=very low, 5=very high) 1 2 3 4 5

#### **2. Why are you interested in the Photovoice Project and what do you want to get out of it?**

#### **3. I can attend all the workshops listed above (Y/N). If N, which workshops can you attend?**

#### **4. I know of friend(s) who would be interested in participating and can pass this information onto them. (Y/N). If Y, what are the names of your friends?**

*Figure 172 - Friends of Nature workshop recruitment*

# 10.2 Appendix C2 - Workshop List

Table 36 - Complete list of engagement activities (workshops, presentations, interviews, exhibits)

No	Date	Country	Location	Type	Partner Organisation	Host Organisation/Cohort	Details
1	6 November 2015	Australia	Melbourne	Workshop	Livewell	Livewell	Photo-story direct submission workshop
2	26 February 2016	Australia	Melbourne	Exhibition	SLF	Coburg Library	Portraits of Change I - photovoice exhibition showing self-sourced Bangladesh photo-stories and Australian Livewell submissions
3	23 May 2016	Australia	Melbourne	Exhibition	MADA	MADA	Portraits of Change II - interactive photovoice exhibition showing self-sourced Bangladesh photo-stories and Australian Livewell submissions
4	12 October 2016	China	Beijing	Workshop	Friends of Nature	Volunteers	Volunteer Briefing - Photovoice concepts and workshop process
5	15 October 2016	China	Beijing	Workshop	Friends of Nature	Self-nominated participants	W1 Photo-story ideation
6	16 October 2016	China	Beijing	Workshop	Friends of Nature	Self-nominated participants	W2 Photo-story round 1 selection, text development, photo-editing
7	22 October 2016	China	Beijing	Workshop	Friends of Nature	Self-nominated participants	W3 Photo-story round 2 selection and photovoice group planning
8	25 October 2016	China	Hangzhou	Workshop	ZUMC	Postgraduate self-nominated	W1 Photo-story ideation
9	28 October 2016	China	Hangzhou	Workshop	ZUMC	Postgraduate self-nominated	W2 Photo-story round 1 selection, text development, photo-editing
10	31 October 2016	China	Hangzhou	Workshop	ZUMC	Postgraduate self-nominated	W3 Photo-story round 2 selection and photovoice group planning
11	6 November 2016	Bangladesh	Dhaka	Workshop	ICCAD	Independent University Bangladesh/Project Be	Volunteer Briefing - Photovoice concepts and workshop process
12	8 November 2016	Bangladesh	Dhaka	Workshop	ICCAD	CPD/Save the Children	Child Club Shymoli - W1 Photo-story ideation and generation
13	10 November 2016	Bangladesh	Dhaka	Workshop	ICCAD	Independent University Bangladesh/Project Be	W1 Photo-story ideation
14	13 November 2016	Bangladesh	Dhaka	Workshop	ICCAD	CPD/Save the Children	Child Club Shymoli - W2 Photo-story selection and text development
15	14 November 2016	Bangladesh	Dhaka	Workshop	ICCAD	Independent University Bangladesh/Project Be	W2 Photo-story selection and text development
16	16 November 2016	Bangladesh	Dhaka	Workshop	ICCAD	ICCAD	Korali Primary School Banani - W1 Photo-story ideation and generation
17	6 December 2016	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Korali)	Korali Primary School Banani - W2 Photo-story selection and text development (Remote)
18	4 February 2017	Australia	Melbourne	Exhibition	SLF	Sustainable Living Festival	Portraits of Change III - Docklands Library
19	11 February 2017	Australia	Melbourne	Workshop	SLF	Sustainable Living Festival / Self-nominated participants	W1 Photo-story ideation and generation
20	12 February 2017	Australia	Melbourne	Workshop	SLF	Sustainable Living Festival / Self-nominated participants	W2 Photo-story selection and text development
21	17 March 2017	Australia	Melbourne	Presentation	New Environmental Humanities Reading Group		Portraits of change: photovoice and multi-species ethnography
22	3 April 2017	Australia	Melbourne	Presentation	Monash	Master of International Development Practice, Faculty of Arts	Design-based photo-voice in development contexts
23	26 April 2017	Australia	Melbourne	Presentation	Monash	Monash Sustainable Development Institute	Design-based photo-voice in for sustainable development
24	28 April 2017	Australia	Melbourne	Workshop	AVCC	Train the trainer	Photovoice concepts and workshop process
25	7 May 2017	Bangladesh	Dhaka	Workshop	ICCAD	Independent University Bangladesh/Project Be	Volunteer briefing - Photovoice concepts and workshop process
26	8 May 2017	Bangladesh	Dhaka	Workshop	ICCAD	CPD/Save the Children	Child Club Shymoli - W1 Photo-story ideation and generation
27	9 May 2017	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Korali)	Korali Primary School Banani - W1 Photo-story ideation and generation
28	11 May 2017	Bangladesh	Dhaka	Workshop	ICCAD	CPD/Save the Children	Child Club Shymoli - W2 Photo-story selection and text development
29	14 May 2017	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Korali)	Korali Primary School Banani - W2 Photo-story selection and text development
30	18 May 2017	Bangladesh	Dhaka	Presentation	ICCAD	Weekly Seminar	Photovoice concepts and workshop process (with Emily Crawford)
31	18 May 2017	Bangladesh	Dhaka	Workshop	ICCAD	Independent University Bangladesh/Project Be	W1 Photo-story ideation
32	24 May 2017	Bangladesh	Dhaka	Workshop	ICCAD	ICCAD - Climate change course	ICCAD Research Office, Bashundhara - W1
33	5 June 2017	China	Hangzhou	Workshop	ZUMC	Undergraduate English Class A	Recording photo-story empathetic response and ideation
34	5 June 2017	China	Hangzhou	Workshop	ZUMC	Undergraduate English Class B	Recording photo-story empathetic response and ideation
35	7 June 2017	China	Hangzhou	Workshop	ZUMC	Undergraduate English Class C	Recording photo-story empathetic response and ideation
36	9 June 2017	China	Hangzhou	Workshop	ZUMC	Undergraduate English Class D	Recording photo-story empathetic response and ideation
37	9 June 2017	China	Hangzhou	Workshop	ZUMC	Undergraduate English Class E	Recording photo-story empathetic response and ideation
38	12 June 2017	China	Beijing	Workshop	Friends of Nature	Self-nominated participants	TED talk-style talk with live video broadcast
39	21 June 2017	Australia	Melbourne	Workshop	AVCC	Young Leaders Round 1 Cohort	W1 Photo-story ideation (Remote)
40	24 June 2017	China	Beijing	Workshop	Friends of Nature	Birding Group	Practical excursion 'in situ' workshop
41	24 June 2017	China	Beijing	Workshop	Friends of Nature	River Group	Practical excursion 'in situ' workshop
42	25 June 2017	China	Beijing	Workshop	Friends of Nature	Self-nominated participants	Reviewing photo-stories, competition launch
43	12 July 2017	Bangladesh	Dhaka	Workshop	ICCAD	Project Be	Independent University Bangladesh - W2 Photo-story selection and text development (Remote)
44	11 August 2017	United Kingdom	Bath	Presentation	The Association of Commonwealth Universities	ACU Summer School program	
45	19 October 2017	Bangladesh	Dhaka	Workshop	ICCAD	IUB / Project Be / Environment Club	W1 Photo-story ideation
46	19 October 2017	Bangladesh	Dhaka	Workshop	ICCAD	NS University / Environmental Science Faculty students / Earth Club	W1 Photo-story ideation
47	22 October 2017	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Rayer Bazar)	Rayer Bazar Secondary School - W1 Photo-story ideation and generation
48	24 October 2017	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Rayer Bazar)	Rayer Bazar Secondary School - W2 Photo-story selection and text development
49	25 October 2017	Bangladesh	Dhaka	Workshop	ICCAD	Independent University Bangladesh / Project Be / Environment Club	W2 Photo-story selection, text development, exhibition planning
50	26 October 2017	Bangladesh	Dhaka	Workshop	ICCAD	NS University / Environmental Science Faculty students / Earth Club	W2 Photo-story selection and text development, exhibition planning
51	28 October 2017	Bangladesh	Dhaka	Workshop	ICCAD	ICCAD masters program	W1 Photo-story ideation
52	10 November 2017	China	Beijing	Workshop	Friends of Nature	China Agricultural University	Subdistrict Propaganda Mission (River Group) / Journalism Club - W1 Photo-story ideation
53	11 November 2017	Bangladesh	Dhaka	Workshop	ICCAD	ICCAD masters program	W2 Photo-story selection and text development (Remote)
54	14 November 2017	China	Beijing	Workshop	Friends of Nature	Subdistrict Propaganda Mission	W1 Photo-story ideation
55	17 November 2017	China	Beijing	Workshop	Friends of Nature	China Agricultural University	Subdistrict Propaganda Mission (River Group) / Journalism Club - W2 Photo-story selection and text development
56	18 November 2017	China	Beijing	Workshop	Friends of Nature	CRCC Asia	W1 Photo-story ideation
57	20 November 2017	China	Hangzhou	Workshop	ZUMC	Undergraduate English Class A	Environmental Action Selfie ideation
58	20 November 2017	China	Hangzhou	Workshop	ZUMC	Undergraduate English Class B	Environmental Action Selfie ideation
59	21 November 2017	China	Hangzhou	Workshop	ZUMC	Postgraduate English Class A	W1 Photo-story ideation
60	24 November 2017	China	Hangzhou	Workshop	ZUMC	Undergraduate English Class C	Environmental Action Selfie ideation
61	24 November 2017	China	Hangzhou	Workshop	ZUMC	Postgraduate English Class A	W2 Photo-story selection and text development
62	24 November 2017	China	Hangzhou	Workshop	ZUMC	Undergraduate English Class D	Environmental Action Selfie ideation
63	2 December 2017	China	Beijing	Workshop	Friends of Nature	CRCC Asia	W2 Photo-story selection and text development (Remote)
64	17 December 2017	Bangladesh	Dhaka	Exhibition	ICCAD	NS University / Environmental Science Faculty students / Earth Club	Photovoice exhibition showing photo-stories from recent workshops at North South University
65	6 January 2018	Bangladesh	Dhaka	Exhibition	ICCAD	Jaago Foundation (Rayer Bazar)	Photovoice exhibition showing photo-stories from recent workshops at Jaago Foundation (Rayer Bazar)
66	9-11 February 2018	Australia	Melbourne	Interviews	Portraits of Change	SLF	Photo-elicitation + action interviews
67	21 March 2018	Australia	Melbourne	Interviews	Portraits of Change	MSA	Photo-elicitation + action interviews
68	2 May 2018	Australia	Melbourne	Workshop	Portraits of Change	Environmental Education Victoria	Photovoice concepts and workshop process
69	14 May 2018	Australia	Melbourne	Workshop	Portraits of Change	Design for Social Change	W1 Photo-story ideation
70	18 May 2018	Australia	Melbourne	Workshop	Portraits of Change	St Louis Primary School	W1 Photo-story ideation
71	27 May 2018	Australia	Melbourne	Workshop	Portraits of Change	ARRCC	W1 Photo-story ideation
72	28 May 2018	Australia	Melbourne	Workshop	Portraits of Change	St Louis Primary School	W2 Photo-story selection, text development, letter
73	4 June 2018	Australia	Melbourne	Workshop	Portraits of Change	Design for Social Change	W2 Photo-story selection, text development, letter
74	10 June 2018	China	Hangzhou	Exhibition	ZUMC	Student volunteers	Photovoice exhibition showing photo-stories from previous years' workshops at ZUMC
75	10 June 2018	Australia	Melbourne	Workshop	Portraits of Change	ARRCC	W2 Photo-story selection, text development, letter
76	10 June 2018	Australia	Melbourne	Workshop	Portraits of Change	Mount Waverley secondary	W1 Photo-story ideation
77	26 June 2018	Australia	Melbourne	Workshop	Portraits of Change	Mount Waverley secondary	W2 Photo-story selection, text development, letter
78	4 July 2018	Australia	Melbourne	Presentation	Rotary Club of Moreland		Supporting environmental justice using photovoice
79	10 July 2018	Australia	Melbourne	Workshop	Portraits of Change	Students of Sustainability	Photovoice concepts and workshop process
80	7 August 2018	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Korali)	volunteer briefing - Photovoice concepts and workshop process
81	7 August 2018	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Korali)	W1 Photo-story selfie ideation and generation
82	8 August 2018	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Rayer Bazar)	W1 Photo-story selfie ideation and generation
83	11 August 2018	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Rayer Bazar)	W2 Photo-story selection, text development, letter
84	12 August 2018	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Korali)	W2 Photo-story selection, text development, letter
85	14 August 2018	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Rayer Bazar)	W3 Develop community project idea and team selection
86	16 August 2018	Bangladesh	Dhaka	Presentation	ICCAD	Weekly Seminar	Lessons from peer-to-peer photovoice approaches
87	5 September 2018	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Rayer Bazar)	W4 Community map and cultural photo-story selection
88	12 September 2018	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Korali)	W3 Develop community project idea, team selection and community map
89	13 September 2018	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Rayer Bazar)	W5 Finalise community project plan
90	1 November 2018	Bangladesh	Dhaka	Workshop	ICCAD	IUB / Project Be / Environment Club	W1 Photo-story selfie ideation and generation
91	2 February 2019	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Rayer Bazar)	W6 Evaluating community projects and exhibition planning
92	4 February 2019	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Korali)	W4 Cultural photo-story collection and community project planning
93	6 February 2019	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Korali)	W5 Cultural photo-story selection and community project planning
94	9-11 February 2019	Australia	Melbourne	Interviews	Portraits of Change	SLF	Photo-elicitation + action interviews
95	6 March 2019	Bangladesh	Dhaka	Workshop	ICCAD	Jaago Foundation (Korali)	W6 Evaluating community projects and exhibition planning
96	24 July 2019	Bangladesh	Dhaka	Exhibition	ICCAD	Jaago Foundation (Rayer Bazar)	Photovoice exhibition showing photo-stories and documenting action projects from workshops at Jaago Foundation (Rayer Bazar)
97	25 July 2019	Bangladesh	Dhaka	Exhibition	ICCAD	Jaago Foundation (Korali)	Photovoice exhibition showing photo-stories and documenting action projects from workshops at Jaago Foundation (Korali)
98	26 July 2019	Bangladesh	Dhaka	Workshop	ICCAD	Dhaka interns	Phase Two planning workshop
99	22 August 2019	Australia	Melbourne	Presentation	Monash	Monash Sustainable Development Institute	Using photo-voice in multi-sited context for environmental behaviour change
##	9 September 2019	Australia	Melbourne	Presentation	New Environmental Thinking Symposium	Deakin University	Good news for (a) change?: photo-storytelling approaches to youth north-south dialogue

## 10.3 Appendix C3 - Consent and information forms

See following pages

## PARTICIPANT EXPLANATORY STATEMENT

### Project: Climate Resilience Media Exchange

**Chief Investigator: Cameron Rose**  
Department of Design  
Phone: +61 3 990 31185  
email: Cameron.Rose@monash.edu

**PhD Researcher: Michael Chew**  
Phone : +614 68477874  
email: Michael.Chew@monash.edu

You are invited to take part in this study. Please read this document in full before deciding whether or not to participate. If you would like any further information, you may contact the researchers listed above.

### What does the research involve?

The research explores the local responses to environment and climate change impacts in cities in China, Bangladesh and Australia. It employs 'participatory photography' methods that use photography for empowerment and social change. Workshop participants will be encouraged to record and share their ideas about environmental action through their photographs. A selection of these photographs will be printed and discussion workshops held to record ideas from participants about their photographs. The research will be conducted over several workshops.

### Why were you chosen for this research?

You have been chosen for this research as you have participated in previous programs relevant to the research.

### Consenting to participate in the project and withdrawing from the research

By signing and returning the **Participant Consent Form** you will be consenting to participate in this research project. You can withdraw from the project at any time and this will not impact on you in any way. You may withdraw your consent for your data (photography, writing, interviews) at any time and this will not impact on you in any way.

### Possible benefits and risks to participants

The project will benefit participants through providing an opportunity to share their attitudes and ideas around environmental sustainability with the wider community. The project will not cause any discomfort. You will be involved in taking photographs of various subjects that may involve you speaking to people and get their consent to be photographed.

### Confidentiality

Your authorship will be recognised for your photo-stories and other data and as such your personal details will be attributed to them. You may choose to be anonymous and have your personal details not included with your data. Your data may be included in: a) academic reports, b) online, c) publically available printed publications.

### Storage of data

Data will be stored on the research team's password protected computers.

### Results

You will be notified when public publications become available which feature your data. This is expected to be in 2018.

### Complaints

Should you have any concerns or complaints about the conduct of the project, you are welcome to contact the Executive Officer, Monash University Human Research Ethics (MUHREC):

Executive Officer  
Monash University Human Research Ethics  
Committee (MUHREC)  
Room 111, Chancellery Building E,  
24 Sports Walk, Clayton Campus  
Research Office  
Monash University VIC 3800  
Tel: +61 3 9905 2052  
Email: [muhrec@monash.edu](mailto:muhrec@monash.edu)

Thank you,

**Cameron Rose**

## PARTICIPANT CONSENT FORM

**Project:** *'Climate Resilience Media Exchange'*

**Chief Investigator:** Dr Cameron Rose

**PHD Researcher:** Michael Chew

I have been asked to take part in the Monash University research project specified above.

I have read and understood the **Participant Explanatory Statement** and I hereby consent to participate in this project.

I consent to the following:	Yes	No
Participating in workshops		
Taking photographs, for which regarding any human subjects I agree to: 1. Ask consent of any people included in the photograph 2. Notifying them that they have a right not to participate 3. If they agree to participate, providing them with a <b>Subject Consent Form</b> , and a <b>Subject Explanatory Statement</b> that they can keep. See below for these forms.		
Participating in interviews		
Writing about my experiences and views		
Being contacted after workshop for additional voluntary activities		

Name of Participant \_\_\_\_\_

Participant Signature \_\_\_\_\_

Date \_\_\_\_\_

## SUBJECT CONSENT FORM

**Project:** *'Climate Resilience Media Exchange'*

**Chief Investigator:** Dr Cameron Rose

**PHD Researcher:** Michael Chew

I have been asked to be photographed as part of the Monash University research project specified above.  
I have read and understood the **Subject Explanatory Statement** and I hereby consent to being:

- 1) Photographed or videoed.
- 2) For the use, reproduction, publishing, communication or broadcasting of any such recorded visual material of myself in any form (including in a CD/DVD, website, publication, poster, presentation, social media (Facebook, Twitter) for the purpose of this research study.

Name of Subject \_\_\_\_\_

Subject Signature \_\_\_\_\_

Date \_\_\_\_\_

## 10.4 Appendix C4 - Workshop handouts

See following pages

# Photo-story Ideas Handout

(keep to inspire your photography)

Student Number:

Name:

## **Guidelines:**

- *Don't worry, there is no right or wrong answer – it is your **individual** responses which matters*
- *You can write in point-form or full sentences*
- *You may write in English or Bangla, please write legibility*
- *Be specific and detailed as possible – please explain clearly*
- *Actions could be in your home, school/university, wider community*

## **1. What are your ideas for positive environmental actions?**

These will be the theme of your photo-stories. Be creative!

Which positive environmental actions inspire you? What positive environmental actions would you like to see?

Make a **mind-map** with the environmental issue you most care about in the middle, followed by positive responses radiating outwards, you can then link these with other ideas.

## **2. Visualise your ideas**

Use storyboards to show a few different ways you could make photo-stories out of your ideas. Don't worry about how they look! Remember that you can use multiple photographs in a series to show your idea.

*Idea #1*

*Idea #2*

*Idea #3*

**3. Plan your photo-story ideas:**

When will you take the photos (before the next workshop)?

Where will you take them?

What might you need to get or organise?

Who will be involved?

Anything another details you need to think about?

**4. I have posted a photo on the photovoice facebook group on this date \_\_\_\_\_**

# Photo-story Response Sheet

*(return to facilitator)*

Student Number:

Full Name:

## **Guidelines:**

- *Don't worry, there is no right or wrong answer – it is your **individual** responses which matters*
- *You can write in point-form or full sentences*
- *You may write in English or Bangla, please write legibility*
- *Be specific and detailed as possible – please explain clearly*
- *You can also choose a pair of photo-stories that **connect** or **contrast** together; for example from different countries*

### **1. Write favourite photo-story(s) alphabetic letter(s), these are marked in RED:**

### **2. How does this photo-story(s) make you FEEL?**

Mark the **emotion(s)** on the wheel on the opposite page.

You may also use words, sentences or drawings to further explain these emotions below if you wish.

### **3. What do you THINK about this photo-story(s)?**

What ideas or opinions do you have about this photo-story?

How does it relate to your life?

### **4. How does this photo-story(s) make you want to ACT?**

After considering THINKING and FEELING, what ACTIONS would you like to take?

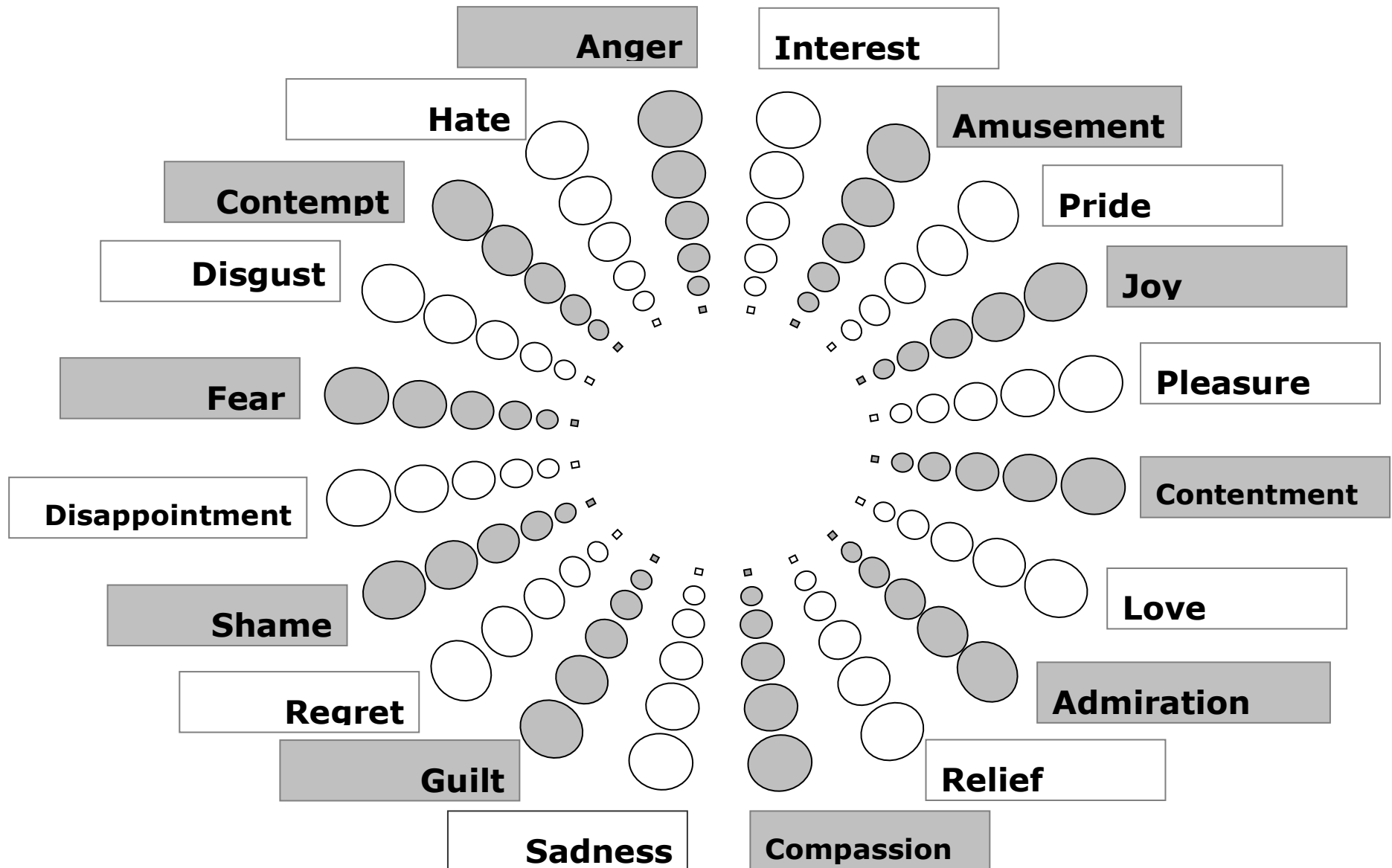
What actions may improve the situation? Don't worry about the feasibility of the action.

These actions could be in different contexts, for example:

- a) Your own life
- b) Your friends or family
- c) Your wider community – such as school/university/workplace

Your emotional responses to the photo-story may contain several different parts of variable intensity. Please rate the intensity of those emotions you felt when observing the photo-story in the wheel below by crossing inside the circles. Positive emotions can be easy to recognize, but you are also invited to consider if you feel any negative ones.

The inner, smaller circles show weaker intensity, the outer, larger ones show greater intensity.



## Photography Guidelines

1. Ensure students have their **ideas sheet** and refer to it when taking photos. They can add or change their ideas, but its best to build on their earlier work
2. Students can have their own photo ideas, but work in **pairs** to make their photo-stories portraits, with one student taking the photo of the other.
3. Go to different places, **inspire** them but be **guided** by them – important that it's their **own ideas** (not yours!)
4. Tell them they not to copy – everyone's photos must be **unique** (can have different photos of same idea/topic)
5. Encourage them to look for **stories** and **characters** – both **surface** and **depth**.
6. Inspire them to be **creative** - they can 'set up' a photo, ask people be involved
7. Each photo-story can be a **multiple** or **individual** photos
8. **Limit** number of photos they take to **max 10** to get them to focus their ideas, we will only collect **max 6** from each student for printing (they will choose).

# Sharing your experience with the world

**What was your experience of making your photo-stories?**

- *What did you learn?*
- *What actions may you wish to take now?*
- *Mark how you felt making your photo-story on emotion sheet*

**What message would you like to share with people from other countries?**

- *What do you want them to know about your life?*
- *What would you like to learn from them?*

# PARTICIPANT CERTIFICATE

*Participated in the Environmental Photo-voice Workshops at  
Jaago Foundation Raya Bazaar School over October 2017*



The workshops were a partnership between the Climate Resilience Media Exchange, the International Centre for Climate Change and Development, and Jaago Foundation. They explored how photo-story development and exchange between Bangladesh, Australia and China can encourage positive environmental behaviour.



A handwritten signature in black ink.

Michael Chew  
Global Coordinator,  
Climate Resilience Media Exchange

## 10.5 Appendix C5 - Workshop Presentations

See following pages

## Welcome and Introduction

Michael Chew

Global Coordinator - Climate Resilience Media Exchange

Doctoral Researcher (Climate resilience and participatory visual methods) - Monash University

entropygravity@gmail.com



### Class 1 Goals:

- To introduce environmental photo-stories
- To develop skills in reading photo-stories
- To develop photo-storytelling skills and ideas

### Eco-Footprint vs. Eco-Handprint

**Eco-Footprint:** A person's impact on their **environment**.  
Try to **REDUCE**



**Eco-Handprint:** A person's impact on their **community**.  
Try to **EXPAND**



### But positive photos are often limited



Often focused on **technology**, or an **idealised action**, without a **story** behind them



#### Step 1 - Photography workshop



- Photo theme
- Your ideas
- Camera operation

#### Step 2 - Photography sessions



- Taking photos!

#### Step 3 - Selecting photos and developing captions



- Selecting your favourite
- Writing text

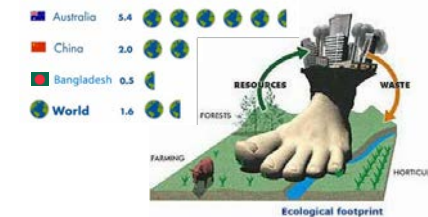


### Our environmental impacts are increasing!

How many Earths do we need if the world's population lived like...



How many Earths do we need if the world's population lived like...



### 1. Why are we doing this?

Why do we need to create and share positive photo-stories?



### But we are acting to protect our environment

Millions of people and communities around the world are taking action for their environment...

We need to tell their positive stories to inspire others!!

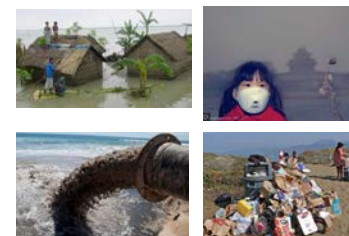


Photography is a powerful tool for storytelling

Photos engage with emotions (heart), not just thoughts (mind)



### So many negative environmental photos!



Negative photos are important as they **increase** people awareness of environmental problems, but they **decrease** people's motivation for taking **action** - the environmental problems seem are too big, what can I do?

So we need to tell better positive environmental photo-stories..

Using photography and words that engages the viewer and the invites them to **feel** and **think** deeper, and ultimately inspires **action**.

### 'climate resilience media exchange'

Photo-story Classes in Dhaka



Three Parts:

- Photo-storytelling
- Local action to help your environment
- Sharing photo-stories with China and Australia

### China, Bangladesh and Australia



**Subject:** their location, orientation, gaze?  
**Contrast:** what types of contrast/differences exist?  
**Composition/framing:** What effects does the composition and use of space have?  
**Colour:** how does colour work in the image?



- Form yourself into small groups (5 groups of 6), each with a team leader
- *Individual* written responses but can discuss ideas with partner
- Can work individually or in pairs when making your photo-stories
- Distribution of photo-story postcards
- Record groups on sign-up sheet

What can you do in your home, school, community?



- Your written responses and photo-stories form part of this research
- Monash University has requirements about giving information to participants
- All information is available here or electronically
- You may withdraw at any time for any reason and your stories will not be included in this research



Left Brain	Right Brain
Logic	Feeling
Facts	Imagination
Words	Symbols

1. Choose **your own** favourite 1 or 2 photo-stories
2. Record your responses on the Response sheet:
  - How does it make you **feel**? (5min)
  - How does it make you **think**? (5min)
  - How does it make you **act**? (5min)

### Brief sharing

Photo-story theme:  
***Positive local responses to environment  
+ climate change issues***



What is the writing saying?

How does it make you feel?

How does it make you reflect on your life?

What action may you be inspired to take?



- Subject:** their location, orientation, gaze?
- Contrast:** what types of contrast exist, if any?
- Composition/framing:** What effects does the composition and use of space have?
- Colour:** how does colour work in the image?



- Looking deeply at other peoples stories can help us see from their perspective
- Reading and discussing photo-stories helps you to think about how to make your own
- You can practice anywhere – we are surrounded by photo-stories!

Answer Q1 **individually** your handout responding to either or both:

- Which positive environmental actions inspire you? (present)
- What positive environmental actions would you like to see? (future)

### Guidelines

- *Actions could be in your home, university, wider community*
- *There are no wrong answers - be creative*
- *English or Bangla*
- *Point form is okay*

Share and discuss in your pair which ones you like the most

## 5. Photography techniques



## Camera angles



What is the effect of the angle on how the statue appears?



Looking up or looking down can have interesting effects...

## Photography Basics

Taking a good photograph – not about having an expensive **camera**, instead it's having a good **eye**!  
Developing your **own** unique view – let your photographs show others **how you see the world**



## Simplify



If the background is messy, change the angle.



Take out anything that is not necessary to show your idea  
Less is often more!

## Composition: Frames



What effect does the frame have in the photos?



‘**Natural**’ photos:  
record what you have **found**  
‘**Constructed**’ photos: shows what  
ideas you wish to **express**



## Constructed: Photograph ‘Series’ (multiple photos)



a) Repeating the same object to show differences



b) Showing a story



c) Showing contrast

## How can you make a photo-story with depth?

What idea do you want to show?

Surface story

How many photos will you use?

Show your personal views?

Deeper story

How do you want viewer to feel?

How can you encourage them to act



## 7. Photo-story Drawing



## Example photo-story one

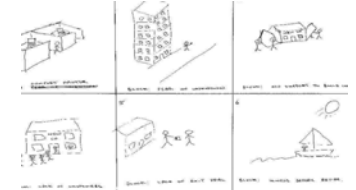


## Example photo-story two



## Photo-story Drawing

Draw out your ideas using a storyboard  
(Q2 Ideas Handout)



Guidelines:

- Be creative and experimental!
- Draw a few different ideas
- Don't worry about it 'looking good'
- First individually, then discuss in pairs/group

## Photography Risks

What risks are involved in photography?

- **Ask people first** – before taking your photo
- **Do no harm** – Don't take photos that may cause harm or embarrassment to the people in the photos
- If in doubt, ask your Jaago volunteer

## Photography Risks

## Camera distribution and guidelines

- One camera between two
- Record camera letter on participant list
- Taking photos – camera and lock buttons
- Reviewing and deleting photo
- Taking care with camera, don't drop or bump it
- Put camera away when not taking photo..
- Each volunteer has a backup if camera problem

## Photography Guidelines

- You can work individually or in pairs
- Don't copy – everyone should be different (can have different photos of same idea).
- Go to different places
- Look for stories – both surface and depth. Take your ideas sheet!
- Be creative you can 'set up' a photo
- Take maximum 10 photos, but you can only submit 6 each – delete as you go along or at the end before submitting
- Series or individual photos

## Class 2

### Creating Photo-stories and Sharing your experience

Photo-story Theme:

#### Positive actions to help environment

Examples:

- Waste reduction
- Water cleaning
- Tree and greenery planting
- Reducing water pollution
- Reducing unnecessary consumption
- Environmental education
- Connecting to nature
- And more...!

## Class 2 Outline

- 1) Review of Class 1
- 2) Selecting your photos
- 3) Discussing and improving your ideas
- 4) Writing about your photos
- 5) Writing about your experience making the photo-stories
- 6) Closing and group photo

## Reviewing Class 1

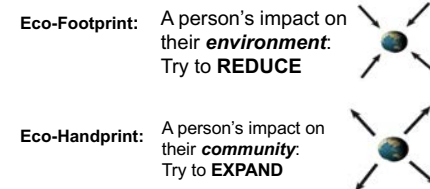


## Photo-story: Photo + writing (story)

Theme: **Positive action to help environment**

What ideas can you think of?

## Eco-Footprint vs. Eco-Handprint



Making photo-stories showing both!

## How can you make a photo-story with depth?

### Surface story

What photos will you choose?  
What idea do you want to show?

### Deeper story

- Show your **personal** views
- How do you want to viewer to **feel**?
- How do you want the view to **think**?
- How can you encourage them to **act**?



## Your ideas from Class 1

- Distribute Ideas sheets
- Look back at your ideas from last time
- Is there anything you would like to add or change? New ideas?

## Selecting your photos

## Selecting your photos



1. Distribute photos, pick out your own.
2. Guidelines to making photo-stories
3. Selecting and organising photos to make photo-stories

## Your own photo-story

- They should show your **own** ideas
- Your should be **different** to photo-stories from other students

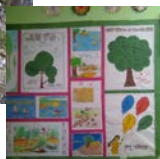
## Balance of environmental problem (negative) and action (positive)



How can the photos tell a **story** of what we can do?



Using multiple photos



Try to involve **people** or **action**

## Example photo-story one



## Example photo-story two





## 10.6 Appendix C6 - Workshop outlines (selected)

Table 37- Jaago Rayer Bazar Workshop 1 Outline - (October 2017)

<b>Class 1 - Learning how to read and write in photographs</b>			
Audience: Environmentally aware secondary students from slum areas			
Aims: To increase visual literacy To increase photography	Outputs: 1. Feel, Think, Act data on participants responses to photo-stories 2. Photographs		
<b>Topic</b>	<b>Details</b>	<b>Materials</b>	<b>Tim</b>
Setup	Data Projector Handouts & Class list & Consent forms Banner Presentation on USB Go through workshop outline	Workshop Outline	5
Introduction	Personal Project - Action research Workshop 1 + 2 Circulate Participant List	Participant List Bangla Photobook	5
Project rationale	Environmental crisis Crisis of perception - positive environmental	Flag consent forms	5
Reading photographs	Subject - Background Emotion - Information Gaze - Contrast		5
Group Formation	30 Students form into 5 x groups of 6, each with 3 pairs . 15 cameras, 4 backup. Volunteer records group name/number participant sheet	Can be recorded during groupwork	5
Activity – responding to photo-stories	In pairs, choose your favourite 1 or 2 photo-story(s) (3) How does it make you feel? (5) How does it make you think? (5) How does it make you act? (5) Report backs and discussion: What is the	Response handout	20
Theme - positive environmental	Examples and discussion		7.5
Postive environmental actions	Brainstorm in paris and groups (5) Individually write down ideas (5)	Ideas Handout	10
Photography techniques	How to take a good photo Constructed images		10
Photo-story drawing	Brainstorm in paris and groups (5) Individually write down ideas (5)		10
Distribute cameras	Basics of camera operation Volunteer record who has which camera in participant sheet		5
Photo taking	1) Dont copy each other, look for surface/depth story, be creative 1) Take as many photos as you want, but you can only submit 5 – you can pick afterwards 2) Camera guidelines:taking care with	Camera guidelines	60
Collecting photos	3 computers, each a station where each volunteer submits the photos from the cameras in their group	Snacks can be given out to students	20
Next Steps	Group photo Next workshop		5
			173

Table 38- Jaago Rayer Bazar Workshop 2 Outline - (October 2017)

<b>Class 2 - Making your photo-stories</b>			
Audience: Environmentally aware secondary students from slum areas			
Aims:	Outputs:		
To create photo-stories	1. Feel, Think, Act data on participants responses to photo-stories		
To collect	2. Photographs		
Topic	Details	Materials	Tim
Setup	Volunteer briefing arrange for food	volunteers	10
1. Welcome and review of class 1	Presentation (6) Distribute ideas sheets (7)	Ideas sheets	15
2. Selecting photos	Distribute photos (7). Stop and everyone look at - Selection guidelines (7)	Blank paper Participant list	25
3. Reading photographs + feedback	Reading photos and Giving feedback (2) 4 x 2+2 min Rearrange photos if necessary	Glue (one between 2-4 students)	20
	Group sharing		10
3. Adding your writing (ideas)	Text development presentation (10)		10
Writing captions	1) Select top 3 photo-stories 2) Write photo-story descriptions	Participant photo plan	20
Portraits of you with you photo-	Take portrait when they are finished		10
4. Reflection on making the photo-			10
Writing reflections	1. How did you find the experience? Now you are photographers/artists, what can you do/what ideas do you have? 2. emotion sheet - how did making your photo-story make you feel? 3. What would you like to share with other young people from other countries? What	Emotion sheet	15
Close	Review next steps Any logistics to be sorted informally Group photo		15
Total estimated time (minutes)			150

## 10.7 Appendix C7 - Workshop photographic documentation

Figure 173 - Bangladesh workshop photo documentation





Figure 174 - China workshop photo documentation





# 10.8 Appendix C8 - Workshop Processes

Table 39 - Workshop adaptation processes

Adaptation	Trial Round (site-cycle 4)	Round A (site-cycle 6)	Round B (site-cycle 7)	Round C (site-cycle 10,11)
Workshops	FoN - 1v, 1 x 3 tertiary+ ZUMC - 1 x 3 tertiary (PG) BD - 1v, 2 x 2 primary, 1 x 2 tertiary AU - 1v, 1 x 2 tertiary+	BD - 1v, 2 x 2 primary, 1 x 2 tertiary (+1 masters) ZUMC - 5 x 1 tertiary (UG) FoN - 3 x 1 tertiary+, +1 follow-up	BD - 2 x 2 secondary, 3 x 2 tertiary (including masters) FoN - 2 x 1 tertiary+, +1 follow-up, 2 x 1 tertiary (CRCC) ZUMC - 4 x 1 tertiary (UG), 1 x 2 tertiary (PG)	AU - 2 x 1 briefings, 1 x 2 primary, 1 x 2 secondary, 1 x 2 tertiary+, 1 x 2 tertiary BD - 1v, 1 x 6 primary, 1 x 6 secondary, 1 tertiary
Recruitment & participants	BD - existing partner classes (easy) FoN - member recruitment (difficult) ZUMC - postgrad recruitment	BD - existing partner classes (easy) FoN - mix member recruitment (difficult), activity based existing ZUMC - existing classes (easy)	BD - existing partner classes (easy) FoN - mix member recruitment (difficult), competition ZUMC - existing classes (easy)	AU & BD - existing partner classes (easy)
Form	3x classroom workshops -	BD: 2x classroom workshops FoN - talkshow (remote participation, few submissions), nature activity based workshops, followup classroom (river/birding) ZUMC - UG 1st W1 + W2 combined into 1.5hr session, repeated 5 classes	BD: 2x classroom workshops FoN - Subdistrict propaganda, agricultural university (un-aligned) ZUMC - UG 2nd 1x2hr session, PG 2x session	AU: 2x classroom workshops BD: 6x classroom workshops
Themes	Extensive project introduction Climate change Extensive photography, digital editing (tertiary)	Miminal project introduction Environment Reduce photographic content, increase storytelling content	Miminal project introduction Environment	Miminal project introduction Cross-site exchange Environment
Ideation	Single ideation activity (environmental concepts), peer discussion	Double ideation activity (environmental concepts, then visualisations)	Dedicated ideas form Making the invisible visible, environmental selfie, your change-maker identity (ZUMC)	Double ideation activity (environmental concepts, then visualisations) Dedicated ideas form Making the invisible visible, environmental selfie
Photo-elicitation / Cross site engagement	Web/previous project image as presentation examples	BD - Previous workshop round photo-stories as presentation examples in Dhaka, empathetic engagement difficult with primary age Subsequent Dhaka photo-stories used in ZUMC workshop, ZUMC photo-stories used in FoN workshop	Dedicated response form photo-elicitation of previous round photo-stories as part of ideation: FEEL, THINK, ACT, Quantified FEEL (GEW) BD - older youth selected, better empathetic engagement, specific questions/messages trialled	Dedicated response form photo-elicitation of previous round photo-stories as part of ideation: FEEL, THINK, ACT, Quantified FEEL (GEW) AU - specific letters to BD written, photo-story introduced with exchange context BD - specific letter responses to AU letters, photo-story responses
Photography	BD Primary photography during workshop community walk through	BD Primary photography during workshop community walk through, BD & CN tertiary facebook/wechat group discussion, submit online	BD Secondary photography during workshop community walk through CN tertiary facebook/wechat group discussion, submit online	AU primary used school ipads, secondary on phones BD Primary & secondary photography during workshop community walk through, cameras given to students over Eid for cultural photo-story, action projects self-documentation (still/video)
Photo-stories	Easy to collect from younger participants in controlled settings, mainly visual documentation Difficult to collect from older participants, especially in China, outside of class structures Less environmental knowledge ZUMC, more visual ideation	Slightly more varied photo-story themes Continuing issues with collecting PS outside of structures	Continuing issues with collecting PS outside of existing structures (FoN)	Generally easy to collect from participants in classroom settings (some delays with AU context due to busy teacher gathering them)
Volunteer engagement / participation	Volunteers trained, more effective Bangladesh than China (existing social connection, hierarchy), guiding behaviour issues	BD - trial local volunteers running subsequent workshops, ToT planned but insufficient time Very effective to have AU intern FoN inter-workshop internship developed for competitions (failure FoN staffing changes)	BD working with single intern easier than team (Bayazid), effective to get PNGO to bring their own volunteers (Jaago)	AU - generally effective with new interns, most effective single dedicated intern BD - very effective to have continuity of dedicated AU intern to assist in BD
Online engagement	Facebook group trialled unsuccessfully (IUB - too shy) Wechat useful (FoN,ZUMC)	BD facebook group second attempt (IUB, some interaction) FoN online competition trial	BD Facebook groups greater sharing focus, effective 1-1 remote feedback (IUB, NS)	Weibo/Wechat engagement over exhibition (ZUMC/PoC) Skype call market walkthrough between BD/AU classes (difficult re time zone difference)
Documentation	Basic workshop photos and videos (Michael)	BD dedicated intern from AU (video documentation, participant portraits)	Selected portraits and video documentation with photo-stories, selected video messages	BD dedicated intern from AU (video documentation, participant, mentor portraits, video messages)
Dissemination	BD posters exhibited Gobeshona conference	BD exhibition attempt, failure (limited capacity)	BD local partner exhibitions organised through application (NS, Jaago, IUB-fail)	AU - Teacher-led Engena environmental educators journal article BD local partner exhibitions organised (Jaago Rayer Bazar & Korail)
Post-workshop action engagements	BD General invitation to post-workshops volunteer group (fail, insufficient follow through)	BD General invitation to post-workshops volunteer group (more promise with intern, fail, insufficient follow through) Unsuccessful post workshop social practices proposal (ZUMC - student migration)	BD Specific invitation to post-workshops subgroups (exhibition, online, exchange), detailed post-workshop survey, with ACTION-intentions	AU - Next steps sharing ideation activity, photo-competition BD - succesful specialised group action projects workshop program
Data	Participant name and contact	Participant demographics - name, age, gender	Participant demographics - name, age, gender	Participant demographics - name, age, gender. Group action project data

Table 40- Workshop meta processes

Action	Detail	Document/Materials/Liaison
<b>PRE-WORKSHOP 1</b>		
Arranging Workshop 1 (photoshoot)	Confirming, date, time, location, projector, volunteers	Partner organisation, volunteers
Prepare Workshop 1 materials	Finalise presentation, outline, handouts. Identify opportunities for mentors to be involved	Presentation on usb/laptop, printed outline and handouts (Including - Ideas sheets, consent forms, participant list)
Prepare cameras	Charge batteries, check working, clear any old photos	Cameras
Brief volunteers	Go over workshop aims, photo guidelines	Photo guidelines
<b>DURING WORKSHOP 1</b>		
Run Workshop 1	Allocate and keep to time for each section, ensure enough time for photoshoot Ensure volunteers are actively engaged in facilitating activities	timer/clock
Photoshoot	Ensure participants take and follow their Ideas Sheets Ensure even - sized groups with a volunteer each Agree on conclusion time first	
Photo-document workshop	Request volunteer to photograph workshop (documentation, group photo), PC collects photos	Camera/phone
Collect signed Participant consent form	Can be collected anytime during workshop 1 + 2	Participant consent form
Collect completed participant list	Showing which participant had which camera	participant list
Collect cameras	Note any reported issues with cameras	
Collect+ organise photographs	Prior to photoshoot organise who (PC, volunteers) will be collecting photos on what computers. More computers=faster (3+) As participants return, copy their photographs off cameras using card reader/USB, transfer into Photo-database	Card reader/USB cable, 3+ computers
<b>IN BETWEEN WORKSHOPS</b>		
Reinbursement of expenses	Volunteers send receipts/cost details to PC PC reimburses from project budget	
Email Teacher Workshop evaluation survey to teacher	Send by the day after the workshop	<a href="https://goo.gl/forms/y9Ld5ubIJErIEYps1">https://goo.gl/forms/y9Ld5ubIJErIEYps1</a>
Print photographs	Instruct photo printing shop to separate photos by folder name (camera letter) - very important!	
Arranging Workshop 2 (writing text, selecting photo-stories)	Confirming, date, time, location, projector, volunteers	Partner organisation, volunteers
Prepare Workshop 2 materials	Finalise presentation, outline, handouts (if relevant)	Presentation on usb/laptop, printed outline
Brief volunteers	Go over workshop aims	
<b>DURING WORKSHOP 2</b>		
Run Workshop 2	Allocate and keep to time for each section, Ensure volunteers are actively engaged in facilitating activities	Blank paper (60+ sheets), gluesticks (6+)
Collect photo-stories	Collect each participant's top 3 photo-stories Labelled consistently - Name, Camera/group number, Participant Ranking (1,2,3 preference)	Photo-story file
<b>AFTER WORKSHOP 2</b>		
Photo-story translation	Allocate translation to volunteers Volunteers translate photo-stories of each participant (all 3 photo-stories) After translation, mark physical photo-story with 'T'. Average translation time 5min (?) Email photo-story translation document to PC	Photo-story translation document
Photo-story upload	Entering Photo-story translation document into photo-story database Multiple photographs per story can go into multiple rows in spreadsheet Visually match photos on photo-story translation document to image file	photo-story database
Extract full resolution photo-stories for publication	Selecting photo-stories from google sheet database Selecting full-resolution photo-stories from image file database	

Table 41 - Volunteer and mentor briefings

## ORGANISER BRIEFING

Session	Details	Notes	Time
<b>Introduction</b>	Aims: 1) Familiarise with the overall program and Dhaka context 2) Roles, tasks, benefits 3) Familiarise with some of the workshop content 4) Your input/suggestions Introductions/motivations		5
<b>Portraits of Change program</b>	Overall program (MC) Dhaka context - comp / exchange (AM)		15
<b>Roles, tasks, benefits</b>	Project Coordinator/Organiser Volunteer Roles: Translation - photo-stories and transcribing of videos Technical - camera maintenance and support Logistical - printing photos, collecting cameras, organising food, transport etc Facilitation - supporting/co-leading photo-voice workshops with youth in Dhaka and other urban areas in Bangladesh Communication - promotion of photo-stories, social media, publications, blog writing		10
<b>Workshop content</b>	with jaago		40
<b>Workshop processes</b>	See checklist		30
<b>Your input/suggestions</b>			5
<b>Next steps</b>	Availability for second session		10

Total 115

## MENTOR BRIEFING

Session	Details	Notes	Time
<b>Introduction</b>	Aims: 1) Familiarise with the overall program and Dhaka context 2) Roles, tasks, benefits 3) Familiarise with some of the workshop content 4) Your input/suggestions Introductions/motivations		5
<b>Portraits of Change program</b>	Overall program (MC) Dhaka context - comp / exchange (AM)		15
<b>Roles, tasks, benefits</b>	Project Coordinator: Volunteer Roles:		30
<b>Workshop content</b>	slideshow		25
<b>Your input/suggestions</b>			10
<b>Next steps</b>	Confirming availability etc		10

Total 95

## 10.9 Appendix C9 - Workshop social media

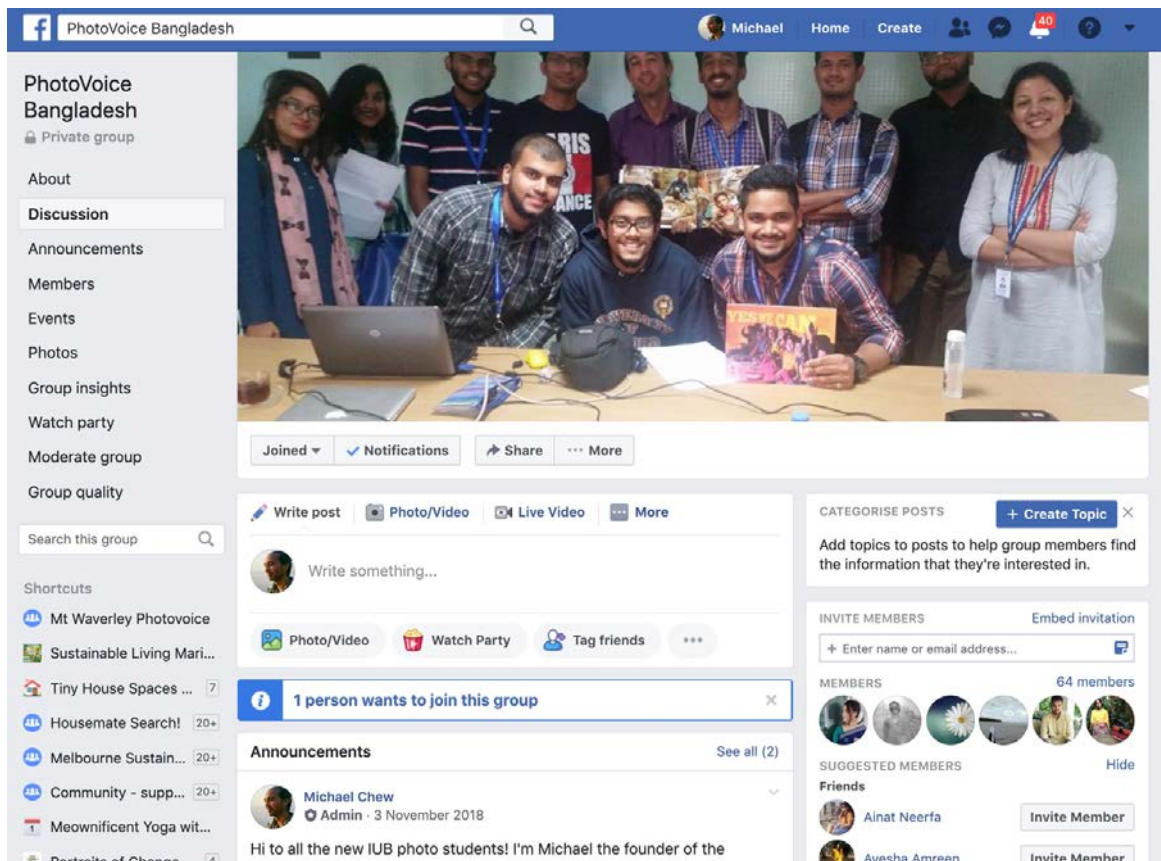


Figure 175 - Facebook group for IUB participants

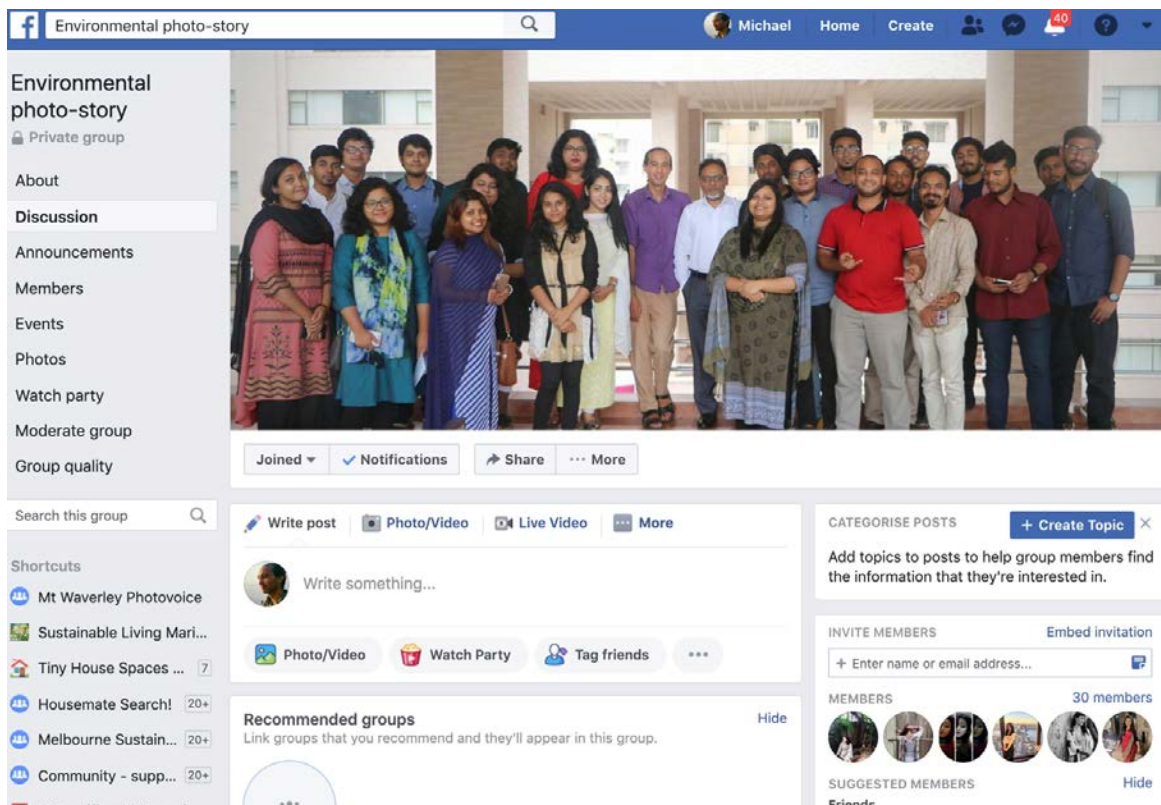


Figure 176 - Facebook group for NS university participants



Figure 177 - Participant photo-story post on NS group



Figure 178 - Local exhibition organiser post on VFB group

## Photovoice Mentors


Private group

- About
- Discussion**
- Announcements
- Members
- Events
- Photos
- Watch party
- Moderate group
- Group quality

Search this group

Shortcuts

- Mt Waverley Photovoice
- Sustainable Living Mar...
- Tiny House Spaces ...
- Housemate Search! 20+
- Melbourne Sustai... 20+
- Community - sup... 20+
- Meownificent Yoga wit...
- Portraits of Change 4
- Open Floor Dance ... 17
- Melbourne Norther... 9
- Association for the ... 2
- Island of Men - This is...
- Friday FLUX - The Ma...



Joined ▾ Notifications Share ... More

Write post Photo/Video Live Video More

Write something...


Photo/Video Watch Party Tag friends ...

### Announcements

**Michael Chew** is with Jennifer Khadim and 10 others.  
26 October 2017 · Dhaka, Bangladesh

It was such a great photo workshop yesterday! Thank you all so much for your time and effort to make it a valuable and engaging experience for the children. Although they are very talented, this talent could not have been properly unleashed without your guidance and support. So thank you.

Thinking about next steps, I had some great discussions with some of you about having an exhibition of the photos in the coming weeks or months. I think it would really make so many of the children's families happy to see their photos displayed! Although I will be leaving Dhaka next Tuesday, I am happy to provide the digital images + text from the children to Jaago for the exhibition once they are transcribed. Perhaps we could chat over the phone before I leave to further this idea?



### CATEGORISE POSTS

+ Create Topic X

Add topics to posts to help group members find the information that they're interested in.

### INVITE MEMBERS

Embed invitation

+ Enter name or email address...

### MEMBERS

13 members

### SUGGESTED MEMBERS

Hide

**Friends**

- Ainat Neerfa Invite Member
- Jennifer Khadim Invite Member
- Ayesha Amreen Invite Member

See More

### DESCRIPTION

Edit

Jaago volunteers and staff interested in using photography for s... See more

### GROUP TYPE

General

### LOCATION

Add Location

### CREATE NEW GROUPS

Groups make it easier than ever to share with friends, family and teammates.

Create Group

### RECENT GROUP PHOTOS

See all




Figure 179 - Facebook group for Jaago photovoice mentors

## PhotoVoice Bangladesh

Private group

- About
- Discussion
- Announcements
- Members
- Events
- Photos
- Group insights
- Watch party
- Moderate group
- Group quality

Search this group

Shortcuts

- Mt Waverley Photovoice
- Sustainable Living Mar...
- Tiny House Spaces ... 7
- Housemate Search! 20+
- Melbourne Sustai... 20+
- Community - sup... 20+
- Meownificent Yoga wit...
- Portraits of Change 4
- Open Floor Dance ... 17
- Melbourne Norther... 9
- Association for the ... 2
- Island of Men - This is...
- Friday FLUX - The Ma...

Like Comment

Anika Tanjim WOW to your patience and thank you for having faith on us, empowered us with courage to be the voice for environment !


Thank you ... See more

Love · Reply · 2y

Write a comment...

Farjana Sormila  
24 October 2017

We use tissue is in a daily basis. However, producing a box of tissue causes damage to the environment. First, it is made from wood fibre, which leads to cutting down of trees. Second, it is produced in industries, where power is used to run those massive machines and emits pollutants. Reducing tissue usage can help the environment. A handkerchief can make a big difference.



Like · Reply · 2y

Michael Chew Thanks for posting! A clever photo-story, informative text, minimalist clean photo, and a call to ACTION. I could imagine a photo series with a range of people holding the whiteboard and different text of a similar theme on it...

Like · Reply · 2y

Farjana Sormila Thank you sir and i will try to improvise it further

Like · Reply · 2y

Sajid Ur Rahman Simplicity at it's best. Simple idea with Powerful message.

Like · Reply · 2y

Michael Chew replied · 1 reply

find the information that they're interested in.

INVITE MEMBERS Embed invitation

+ Enter name or email address...

MEMBERS 64 members

SUGGESTED MEMBERS Hide

Friends

- Ainat Neerfa Invite Member
- Ayesha Amreen Invite Member
- Rod Williams Invite Member

See More

DESCRIPTION Edit

A group for passionate Dhaka youth from Independent University Bangladesh / Project B who are interested in environmental photography. It was established in 2016 through photovoice workshops.

GROUP TYPE General

LOCATION Edit

Bangladesh

This location has been set based on your group's name

CREATE NEW GROUPS

Groups make it easier than ever to share with friends, family and teammates.

Create Group

RECENT GROUP PHOTOS See all

Suggested Groups See all

10 Minute School English Language Club

16 friends · 422,804 members

+ Join Group

Figure 180 - Participant photo-story post on IUB group

# Appendix D - Analysis

## 11.1 Appendix D1 - Photo-story data analysis (II)

Table 42 - Second round photo analysis working sheet

Photo	Text	Person	Image	Primary	Secondary	Primary Argument	Secondary	Text
	Grandpa in his rental, filled with a wide range of second-hand books. He is repairing the table tennis racket and making it available again.	Y	portrait	Repair/reuse	personal story	Old is gold	Solution	
	It's a Drifting bookstore. There are more than 120 drifting bookstore in Hangzhou, not only benefit the nearby residents exchange book, but also easy to manage. People can browse these books and use their own books to exchange what they want to read. These books come from some institutions.	N		Repair/reuse		community	Solution	
	Trees block the building, but it can not stop the pollution. Walking on the road, the trees on both sides let people feel the vitality, but the angle of view lifted, but found a different picture. What we need is not just the greenery on the surface, but	Y		Sight	air pollution	invisible/visible	photographer subjectivity	didactic
	Today I show the photo for everyone is about the daily protection of the environment. In the picture we can see that a silver-haired sanitation grandfather is now on the steep walls of the river, carefully swept the water and the paper on the wall. In fact,	Y		Waste		invisible/visible	Solution	didactic
	The use of a tree has a lot. Half scattered cool, half of the air purification. Hot summer, people without air conditioning through the power of the tree to bring their own joy. For example, haircut? Scattered hair fell into the black mud land with the elapsing of	Y	portrait	Nature as life giving	air pollution	Solution		didactic
	We are so happy to see such a beautiful blue sky, and take a photo of it. But I want more. I want to have the happiness when every time I raise my head rather than the fear of losing it. Blue sky should not be the luxuries. Yan	N		Pollution	Sight	Direct connection with nature	photographer subjectivity	
	Every time looking the photo, I always have a feeling of loneliness. It like a kid who is homeless, although it is just a small plastic bag. Maybe we can do something for it, like taking it to the Recyclable Garbage Can, and it will be reborn.	N		Waste	Sight	Solution		Emotion
	The stone in this picture is not a real stone. It is actually a box made of waste. There is a stereo in it that can play music. During the break, the students can enjoy the wonderful music. In environmental protection, such a unique idea, worth our reference	N		Repair/reuse		Solution		
	Two old people insist on making tofu themselves. They think that the waste produced by the tofu produced by the factory can not be used effectively for two times. They use filtered water to clean the house and water the plants. The waste material can be made	Y	group portrait	Old is gold		Solution		
	If we collect our waste wisely it can be used properly. We can keep our disposable waste. Later they can be used as fertilizer. We can use these fertilizers on home grown vegetables which can benefit through the year. Mohammad Tipu	N		Waste	Plants	Solution		didactic
	Water is an important element of our environment. But we are polluting water by throwing waste into it. We use water for drinking purpose. We should boil water before drinking. Yasin Hossain Rabbia Bangladesh / Dhaka / CPD Child Club	N		Water	Waste	Solution		didactic
	If we can't recycle the plastics, we will reuse it somewhere else. We will bring them and plant trees on them or grow vegetables. As far as waste goes, I can separate the waste in separate plastic bins. I can use organic waste as fertilizers for the plants. I hope what I do will be an example for others in	Y	portrait	Waste		Personal responsibility	Role-modelling	
	Rooftop gardening can help solve food shortage. This woman is planting vegetables which will help in meeting the family's need. This is one of the biggest skill in life.	Y	portrait	Plants	food	resilience	Solution	
	We should all use Rickshaws. Rickshaws don't pollute the air or the atmosphere. It doesn't emit black smoke. We can use this as an example for a cleaner environment.	Y	portrait	transport	air pollution	Solution		didactic
	Slum children live in an extremely vulnerable and polluted environment. Education seems to be luxury to them as survival is the hardest part. Their lives are shadowed by poverty, illness and hunger but they keep dreaming to get education. Some NGO schools like JAAGO school and others are	Y	group portrait	education		resilience	Solution	
	Being Happy is easy! Whenever the word city appears, we usually picture it without less greeneries! Well you don't need necessarily a vast field to make a garden! It's a picture of my tiny happy place, my little balcony garden and I love it! Why look for beautiful happy places when you can	N		Plants	Home	Nature as life giving		

## 11.2 Appendix D2 - Photo-story data analysis (III) - NVIVO

Table 43 - NVIVO node summary totals

	Total	BD	CN	AU	Total	M	F	Total	M	F	BD	CN	AU	F : Primary	G : Second	H : Tertiary	dif	Total
1 : Photograph	954.2	320	313.3	320.9	632.7	299.5	333.15	318	135	183	160	101	57	76	64	195	41	359
2 : Participant	954.2	320	313.3	320.9	632.7	299.5	333.15	318	135	183	160	101	57	41	64	189	0	318
3 : Australia_Livewell_1	253.3	0	0	253.3	95.46	75.44	20.026	45	34	11	0	0	45	0	0	34	0	45
4 : ARRC_4	67.56	0	0	67.56	23.44	8.875	14.564	12	4	8	0	0	12	0	0	0	0	12
5 : Bangladesh_CPD_1	82	82	0	0	82.61	44.38	38.231	41	20	21	41	0	0	76	0	0	35	76
6 : Bangladesh_IUB_3	76	76	0	0	78.74	53.25	25.487	38	24	14	38	0	0	0	0	38	0	38
7 : Bangladesh_Jaago Rayer Bazar_3	128	128	0	0	132	86.53	45.513	64	39	25	64	0	0	0	64	0	0	64
8 : China_FoN_1	142.7	0	142.7	0	83.74	0	83.744	46	0	46	0	46	0	0	0	46	0	46
9 : China_FoN_2	170.6	0	170.6	0	100.1	0	100.13	55	0	55	0	55	0	0	0	60	6	61
10 : Demographics	954.2	320	313.3	320.9	632.7	299.5	333.15	318	135	183	160	101	57	76	64	195	43	361
11 : AU	320.9	0	0	320.9	118.9	84.31	34.59	57	38	19	0	0	57	0	0	34	0	57
12 : BD	320	320	0	0	329.9	215.2	114.69	160	97	63	160	0	0	76	64	55	37	197
13 : CN	313.3	0	313.3	0	183.9	0	183.87	101	0	101	0	101	0	0	0	106	6	107
15 : R1	450.1	116	142.7	191.4	275.5	135.3	140.18	138	61	77	58	46	34	76	0	97	37	175
16 : R2	170.6	0	170.6	0	100.1	0	100.13	55	0	55	0	55	0	0	0	60	6	61
17 : R3	204	204	0	0	210.8	139.8	71	102	63	39	102	0	0	0	64	38	0	102
18 : R4	67.56	0	0	67.56	23.44	8.875	14.564	12	4	8	0	0	12	0	0	0	0	12
14 : Primary	82	82	0	0	82.61	44.38	38.231	41	20	21	41	0	0	76	0	0	35	76
19 : Secondary	128	128	0	0	132	86.53	45.513	64	39	25	64	0	0	0	64	0	0	64
20 : Tertiary	611.6	110	310.2	191.4	370	144.2	225.74	189	65	124	55	100	34	0	0	195	6	195
21 : Photo Captions	394.7	120	139.6	135.1	256	117.6	138.36	129	53	76	60	45	24	22	21	81	6	135
22 : Content	219.7	78	40.33	101.3	143.8	90.97	52.795	70	41	29	39	13	18	16	16	35	4	74
<b>Content</b>	<b>Total</b>	<b>BD</b>	<b>CN</b>	<b>AU</b>	<b>Total</b>	<b>M</b>	<b>F</b>	<b>Total</b>	<b>M</b>	<b>F</b>	<b>BD</b>	<b>CN</b>	<b>AU</b>	<b>F : Primary</b>	<b>G : Second</b>	<b>H : Tertiary</b>	<b>dif</b>	<b>Total</b>
27 : Plant	72.92	18	15.51	39.41	42.61	24.41	18.205	21	11	10	9	5	7	4	4	11	1	22
31 : Waste	69.99	50	3.102	16.89	60.36	42.16	18.205	29	19	10	25	1	3	13	9	8	2	31
32 : Waste - mitigation	42.52	20	0	22.52	29.47	22.19	7.2821	14	10	4	10	0	4	7	3	4	1	15
30 : Transport	36.15	8	0	28.15	19.17	15.53	3.641	9	7	2	4	0	5	1	2	4	1	10
37 : Ground waste	31.1	28	3.102	0	31.29	22.19	9.1026	15	10	5	14	1	0	4	9	2	0	15
28 : Garden	28.72	0	6.204	22.52	12.52	8.875	3.641	6	4	2	0	2	4	0	0	5	0	6
38 : Plastic	25.26	14	0	11.26	19.17	15.53	3.641	9	7	2	7	0	2	6	1	2	0	9
26 : Home	24.52	2	0	22.52	11.09	11.09	0	5	5	0	1	0	4	1	0	4	1	6
39 : Water	23.51	8	15.51	0	17.58	6.656	10.923	9	3	6	4	5	0	1	2	6	0	9
33 : Bag	19.26	8	0	11.26	12.91	11.09	1.8205	6	5	1	4	0	2	4	0	2	0	6
34 : Bin	12	12	0	0	12.52	8.875	3.641	6	4	2	6	0	0	3	3	1	1	7
35 : Compost	11.26	0	0	11.26	4.039	2.219	1.8205	2	1	1	0	0	2	0	0	1	0	2
29 : SportRec	10.2	4	6.204	0	7.68	2.219	5.4615	4	1	3	2	2	0	0	1	4	1	5
36 : Air pollution	10	10	0	0	10.7	8.875	1.8205	5	4	1	5	0	0	4	0	2	2	7
24 : Design	9.306	0	9.306	0	5.462	0	5.4615	3	0	3	0	3	0	0	0	3	0	3
23 : Animal	8.732	0	3.102	5.63	3.641	0	3.641	2	0	2	0	1	1	0	0	1	0	2
25 : Electronic	5.63	0	0	5.63	2.219	2.219	0	1	1	0	0	0	1	0	0	1	0	1
<b>Theme</b>	<b>Total</b>	<b>BD</b>	<b>CN</b>	<b>AU</b>	<b>Total</b>	<b>M</b>	<b>F</b>	<b>Total</b>	<b>M</b>	<b>F</b>	<b>BD</b>	<b>CN</b>	<b>AU</b>	<b>F : Primary</b>	<b>G : Second</b>	<b>H : Tertiary</b>	<b>dif</b>	<b>Total</b>
75 : Nature	42.04	24	12.41	5.63	34.53	19.97	14.564	17	9	8	12	4	1	5	6	9	4	21
52 : Community	30.41	18	12.41	0	26.45	15.53	10.923	13	7	6	9	4	0	2	5	7	2	15
80 : Nature connection	17.63	12	0	5.63	14.34	8.875	5.4615	7	4	3	6	0	1	3	3	2	1	8
82 : Nature-observation	2	2	0	0	1.821	0	1.8205	1	0	1	1	0	0	0	1	0	0	1
64 : Food	14.73	6	3.102	5.63	10.3	6.656	3.641	5	3	2	3	1	1	0	2	2	0	5
97 : Solution	3.102	0	3.102	0	1.821	0	1.8205	1	0	1	0	1	0	0	0	1	0	1
56 : Education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66 : Human issues	35.99	16	3.102	16.89	25.43	19.97	5.4615	12	9	3	8	1	3	3	3	5	0	12
41 : Aesthetics	18.89	2	0	16.89	8.875	8.875	0	4	4	0	1	0	3	0	1	2	0	4
95 : Sight	6	6	0	0	6.656	6.656	0	3	3	0	3	0	0	0	2	1	0	3
48 : Climate change	8	8	0	0	8.079	4.438	3.641	4	2	2	4	0	0	3	1	6	0	4
57 : Emotion	74.38	2	21.71	50.67	33.34	13.31	20.026	17	6	11	1	7	9	0	1	12	0	17
62 : Energy	11.83	0	6.204	5.63	5.86	2.219	3.641	3	1	2	0	2	1	0	0	2	0	3
79 : Nature caring	29.3	0	12.41	16.89	13.54	4.438	9.1026	7	2	5	0	4	3	0	0	6	0	7
92 : Role-modelling	23.09	0	6.204	16.89	9.899	4.438	5.4615	5	2	3	0	2	3	0	0	4	0	5
42 : Beauty	53.55	20	27.92	5.63	39.2	15.53	23.667	20	7	13	10	9	1	5	3	11	0	20
54 : Social	35.92	8	27.92	0	24.46	4.438	20.026	13	2	11	4	9	0	0	2	12	1	14
72 : Metaphor	21.71	0	21.71	0	12.74	0	12.744	7	0	7	0	7	0	0	0	7	0	7
55 : Consumption	3.102	0	3.102	0	1.821	0	1.8205	1	0	1	0	1	0	0	0	1	0	1
58 : Curiosity	9.102	6	3.102	0	7.68	2.219	5.4615	4	1	3	3	1	0	0	2	3	1	5
76 : Nature - damaging	2	2	0	0	2.219	2.219	0	1	1	0	1	0	0	0	0	1	0	1
69 : Health	34.72	6	6.204	22.52	18.77	13.31	5.4615	9	6	3	3	2	4	2	0	5	0	9
65 : Future	6	6	0	0	5.86	2.219	3.641	3	1	2	3	0	0	2	1	0	0	3
49 : CO2	66.07	10	27.92	28.15	36.58	11.09	25.487	19	5	14	5	9	5	4	1	12	0	19
77 : Nature - life giving	19.31	10	9.306	0	16.16	8.875	7.2821	8	4	4	5	3	0	0	2	6	0	8
43 : CleanDirty	43.99	24	3.102	16.89	31.92	15.53	16.385	16	7	9	12	1	3	2	5	9	1	17
89 : Recycle	6	6	0	0	5.462	0	5.4615	3	0	3	3	0	0	0	3	0	0	3
83 : Non-environmental	15.26	4	0	11.26	8.079	4.438	3.641	4	2	2	2	0	2	1	0	3	0	4
68 : Env justice	20.73	12	3.102	5.63	15.76	6.656	9.1026	8	3	5	6	1	1	1	2	5	1	9
45 : Authority	10	10	0	0	10.7	8.875	1.8205	5	4	1	5	0	0	0	2	3	0	5
90 : Repair-Reuse	11.26	0	0	11.26	4.438	4.438	0	2	2	0	0	0	2	0	0	0	1	3
78 : Nature as teacher	23.51	8	15.51	0	17.18	4.438	12.744	9	2	7	4	5	0	0	0	9	1	10
53 : Sharing	2	2	0	0	2.219	2.219	0	1	1	0	1	0	0	0	0	1	0	1
94 : Sensation	8.204	2	6.204	0	5.86	2.219	3.641	3	1	2	1	2	0	0	0	3	0	3
71 : Innovation	147.3	28	102.4	16.89	95.8	26.63	69.179	50	12	38	14	33	3	0	5	44	3	53
70 : Livelihood	21.31	12	9.306	0	18.38	11.09	7.2821	9	5	4	6	3	0	0	2	7	0	9
81 : Nature-child connection	18.2	12	6.204	0	16.56	11.09	5.4615	8	5	3	6	2	0	0	3	7	2	10
60 : Happy	12.41	0	12.41	0	7.282	0	7.2821	4	0	4	0	4	0	0	0	4	0	4
74 : Modernisation	34.45	4	24.82	5.63	20.82	4.438	16.385	11	2	9	2	8	1	0	0	11	1	12
96 : In-visible	71.22	14	40.33	16.89	45.06	17.75	27.308	23	8	15	7	13	3	0	4	17	2	25
51 : Weather	9.306	0	9.306	0	5.462	0	5.4615	3	0	3	0	3	0	0	0	3		

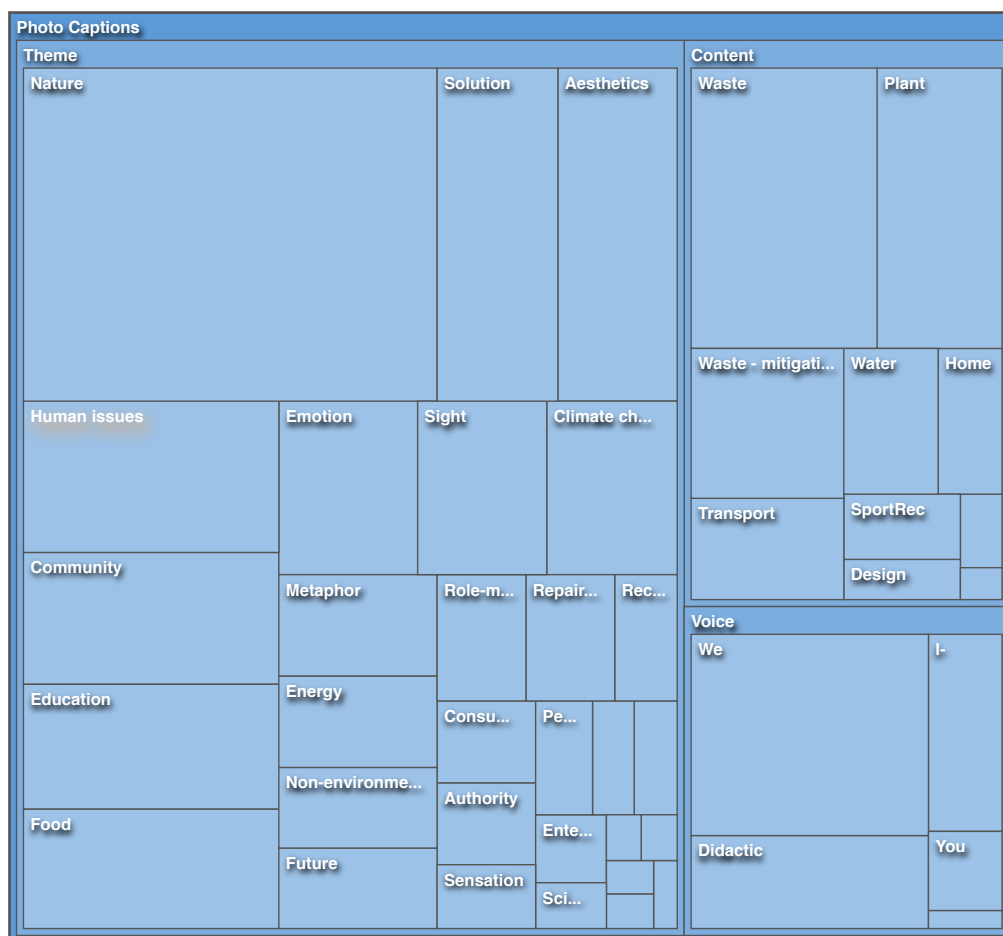


Figure 181 – Node hierarchy chart

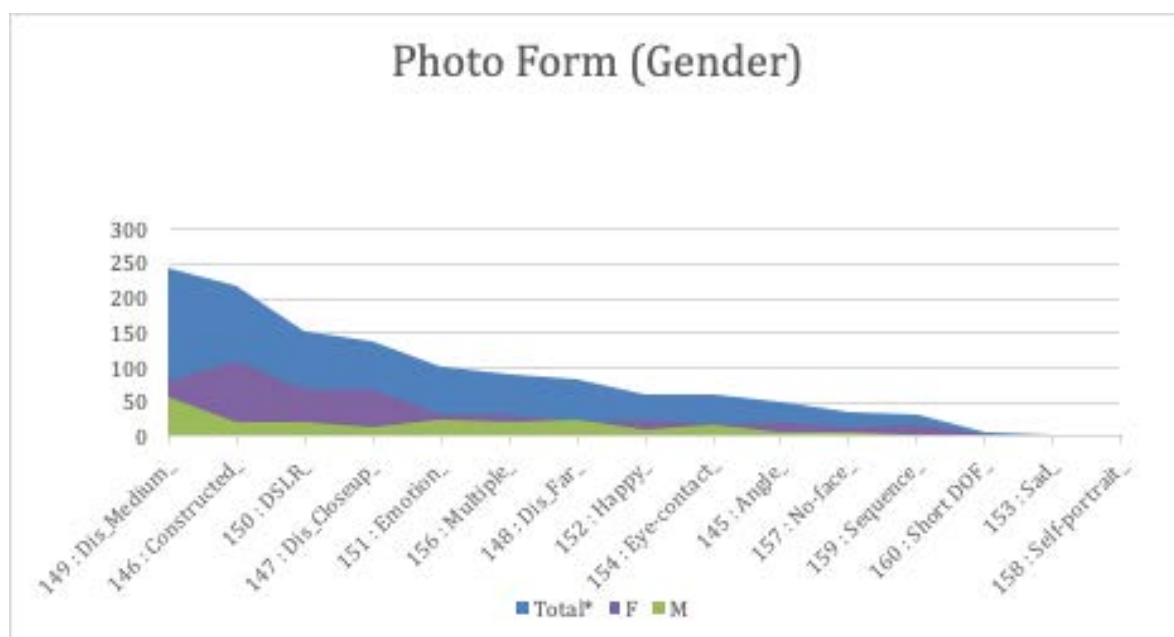


Figure 182 - Photograph form nodes organised by participant gender

Table 44 -Node theme coding hierarchy, bold indicates aggregate theme

<b>Theme</b>	123	351
<b>Aesthetics</b>	<b>21</b>	<b>25</b>
Beauty	15	15
CleanDirty	8	8
Space	1	1
Authority	5	5
Balance	1	1
Chemical free	0	0
<b>Climate change</b>	<b>12</b>	<b>14</b>
CO2	4	4
Natural disaster	3	3
Weather	4	4
<b>Community</b>	<b>17</b>	<b>21</b>
Sharing	3	3
Social	7	7
Consumption	5	5
Education	20	20
<b>Emotion</b>	<b>14</b>	<b>15</b>
Curiosity	7	7
Fear	1	1
Happy	5	5
Sad	1	1
Energy	9	9
Enterprise	3	3
Food	19	19
Future	8	8
<b>Human issues</b>	<b>19</b>	<b>24</b>
Care for humans	3	3
Env justice	4	4
Health	9	9
Livelihood	5	5
Population	3	3
Innovation	3	3
Metaphor	10	10
Migration	1	1
Modernisation	3	3
<b>Nature</b>	<b>49</b>	<b>86</b>
Nature - damaging	9	9
Nature - life giving	10	10
Nature as teacher	4	4
Nature caring	12	12
Nature connection	25	25
Nature-child connection	3	3
Nature-observation	19	23
Non-environmental	8	8
Non-human subjectivity	1	1
Old is gold	1	1
Personal story	4	4
Photographer subjectivity	0	0
Recycle	5	5
Repair-Reuse	7	7
Resilience	0	0
Role-modelling	7	7
Science	2	2
Sensation	4	4
<b>Sight</b>	<b>12</b>	<b>14</b>
In-visible	3	3
Solution	25	25
Tourism	1	1

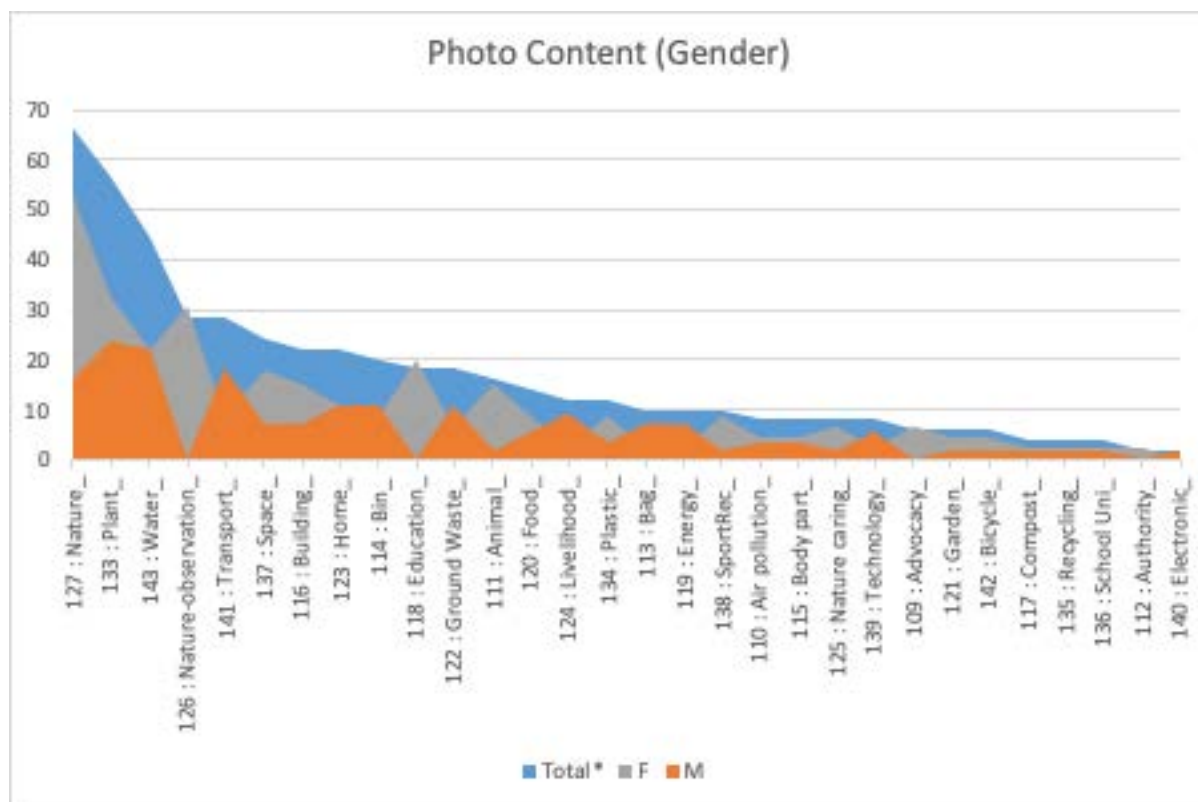


Figure 183 - Photograph content nodes organised by participant gender



Figure 184 - Photograph form nodes organised by participant site

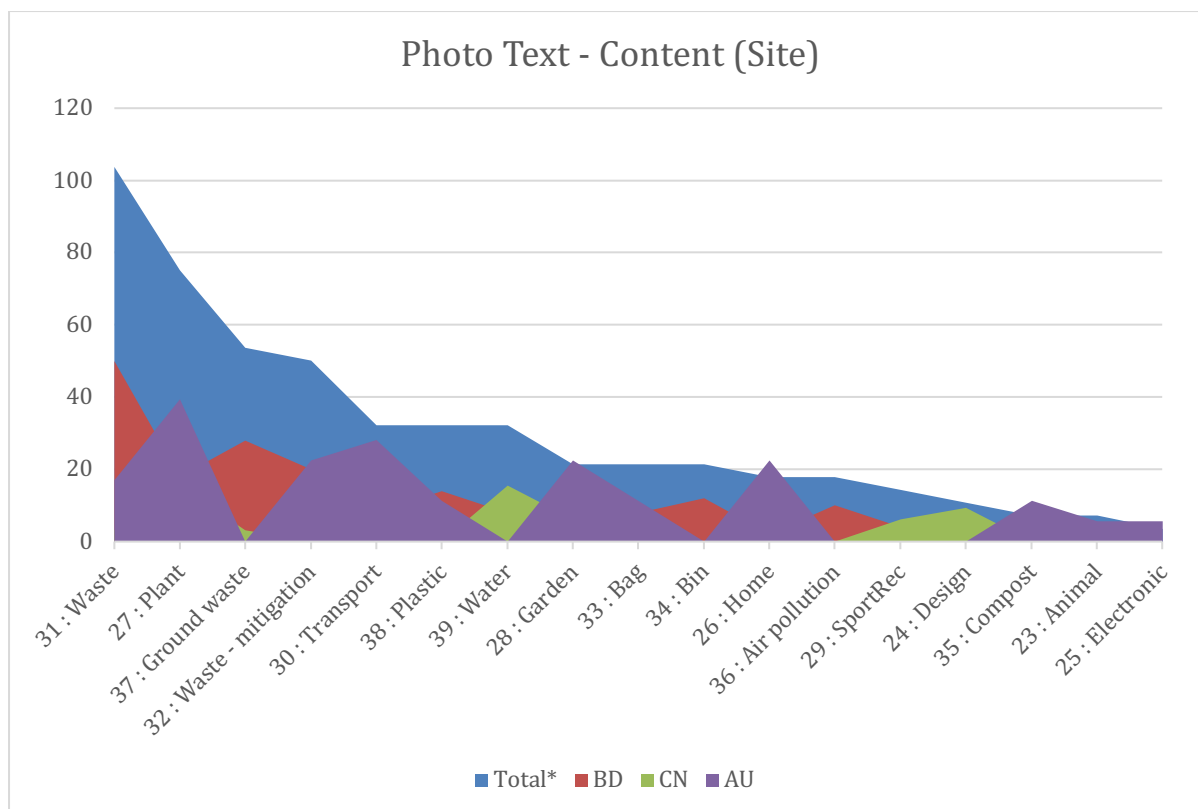


Figure 185 - Photograph text nodes organised by participant site

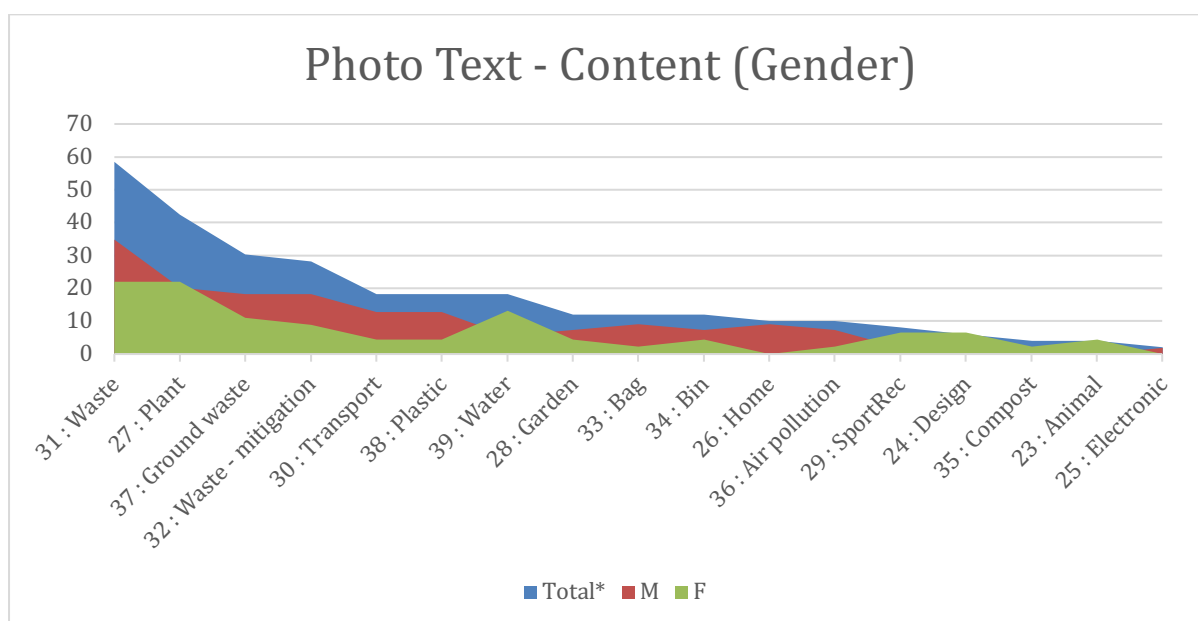
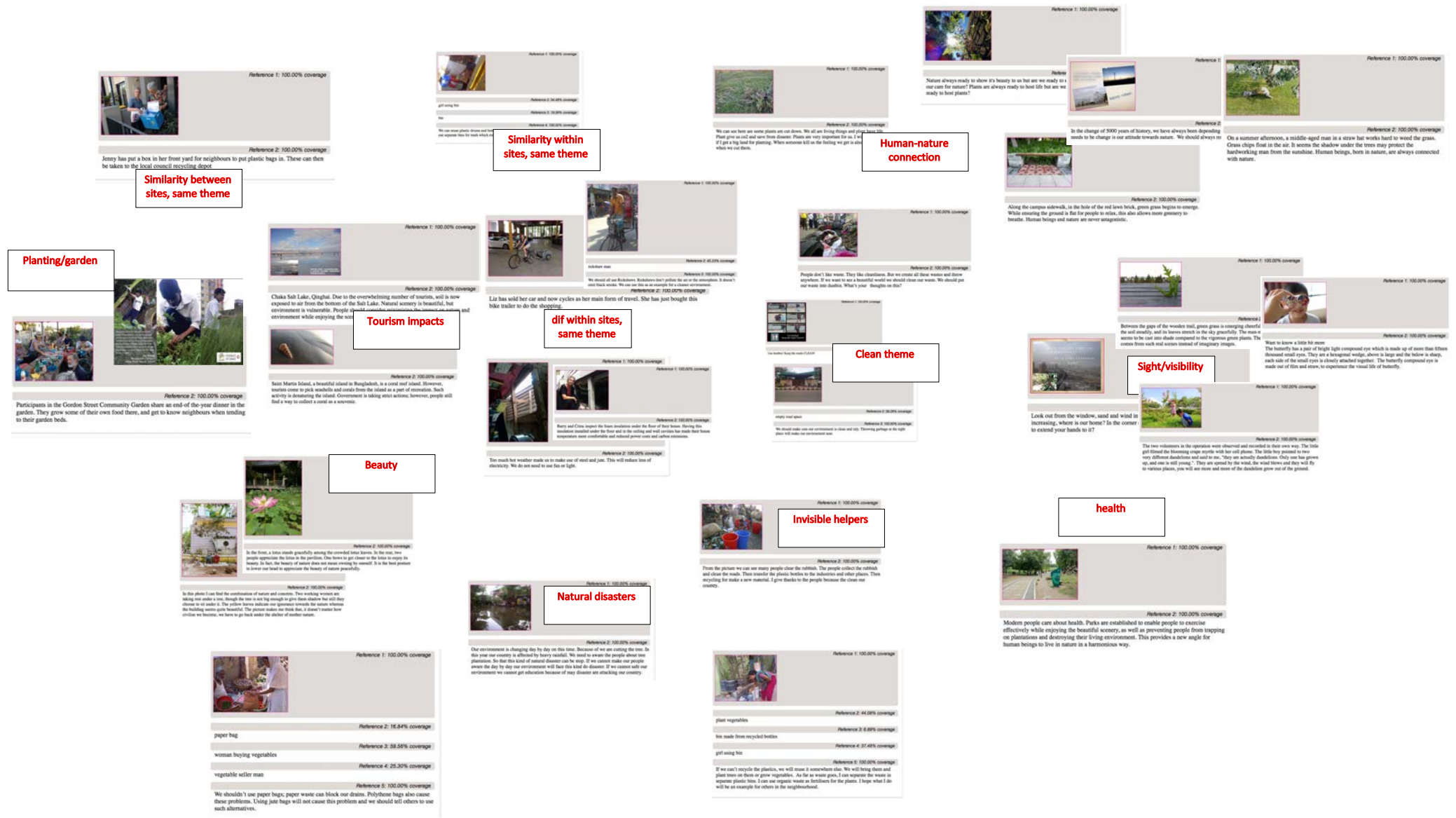


Figure 186 - Photograph text nodes organised by participant gender

# 11.3 Appendix D3 - Photo-story data analysis (III) - human-nature clustering



## Nature

## BEAUTIFUL NATURE

## Natural beauty as gift



In the front, a lotus stands gracefully among the crowded lotus leaves. In the rear, two people appreciate the lotus in the pavilion. One bows to get closer to the lotus to enjoy its beauty. In fact, the beauty of nature does not mean seeing by oneself. It is the best posture to lower our head to appreciate the beauty of nature

## Natural beauty as invitation



Nature always ready to show its beauty to us but are we ready to share our care for nature? Plants are always ready to host life but are we ready to host plants?

## Natural beauty as peace



A corner of the Summer Lotus Pond at the Old Summer Palace Park. Birds fly across the reeds and people smile happily when looking at the birds and following their footprint along the pond. The birds rest on the newly burgeoning lotus, as if they are waiting for the bird-watchers. People wander along the pond, enjoying the fragrance of lotus and the twitter of birds. What a beautiful and peaceful scene!

## NATURE – SUPPORTING HUMANS



Beijing's summer seems to have come very early this year. Of one accord, people in the community come to the shadow of the trees after lunch. Some begin to chat while others just enjoy the shadow quietly. As time goes on, the angle of the sun changes, and people move from one place to another accordingly. More and more people get together - looks likely they want to avoid using air conditioning, maybe to save money, or save electricity. Hope greening could get better and better, trees grow higher and higher, and there is more and more shadow!



On a summer afternoon, a middle-aged man in a straw hat works hard to weed the grass. Grass chips float in the air. It seems the shadow under the trees may protect the hardworking man from the sunshine. Human beings, born in nature, are always connected with nature.



In this photo I can find the combination of nature and concrete. Two working women are taking rest under a tree, though the tree is not big enough to give them shadow but still they choose to sit under it. The yellow leaves indicate our ignorance towards the nature whereas the building seems quite beautiful. The picture makes me think that, it doesn't matter how civilise we become, we have to go back under the shelter of mother nature.

## Nature - damaging



While the sign says No Fishing, some

## Nature – seeing as is



## NATURE - CONNECTION

Between the gaps of the wooden trail, green grass is emerging cheerfully. Its root stays in the soil steadily, and its leaves stretch in the sky gracefully. The man-made wooden trail seems to be cast into shade compared to the vigorous green plants. The beauty of nature comes from such real scenes instead of imaginary images.

## NATURE - SIGHT

## Nature – Child connection



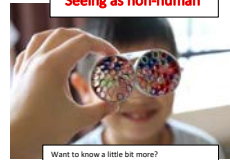
The two volunteers in the operation were observed and recorded in their own way. The little girl filmed the blooming crape myrtle with her cell phone. The little boy pointed to two very different dandelions and said to me, "they are actually dandelions. Only one has grown up, and one is still young." They are spread by the wind, the wind blows and they will fly to various places, you will see more and more of the dandelion grow out of the ground.

## Nature as teacher



Love, is disguise  
Children play hide-and-seek  
In the creek, the toad is the best of the best, camouflage with it to avoid the enemy's line of sight.

## Seeing as non-human



Want to know a little bit more?  
The butterfly has a pair of bright light compound eye which is made up of more than fifteen thousand small eyes. They are a hexagonal wedge, above is large and the below is sharp, each side of the small eyes is closely attached together. The butterfly compound eye is made out of film and straw, to experience the visual life of butterfly.

## Nature as happiness



People want to be happy. We get happiness from environment. But if we pollute environment how we will get happiness from environment. Pollution make our environment bad. We should not pollute our environment. Our life will be much happier.

## NATURE – RECIPROCAL GIVING

## Nature empathy



We can see here are some plants are cut down. We all are living things and plant have life. Plant give us co2 and save from disaster. Plants are very important for us. I will be so happy if I get a big land for planting. When someone kill us the feeling we get is also felt by trees when we cut them.

## Nature as self



I am environment. I give them land. Please not waste land. Plant trees and clean the environment. So it is difficult to change an environment. Environment is very wonderful part of earth. So, we should not put rubbish there and there. I love my environment.

## Giving back to nature



Today I planted flowers. On my balcony. Flowers for her. I know she can get exhausted. Working. Buzzing. Bringing life. Such long trips on winter days. I planted flowers. Her favourite blue flowers. For her to be sustained. She works tirelessly. All year round. That we may eat. So today I planted flowers, to thank her for her work. And there she is. Isn't she amazing!

## NATURE VS HUMANS

## Nature as powerful



Two Park Benches. These two park benches live side by side each other in a park near where I live. One is for humans, the other one is for other species. This outcome is unintentional, but because the second bench is not so obvious when one enters this park, it is overlooked. If we don't pay attention, our carefully laid plans get swallowed up by more powerful forces...

## Nature as delicate



Look out from the window, sand and wind in distance, getting closer, panic in heart increasing, where is our home? In the corner of the city there is still green, are you willing to extend your hands to it?

# 11.4 Appendix D4 - Photo-elicitation

Table 45 - ZUMC unstructured photo-elicitation

Rank	Class	ID	Photo	Theme1	Theme2	Action/Feeling 1	Action/Feeling2	Person	Photo	Text	Notes
2	F1	1	P	reuse	child nature connection	fun/inspirational/joy	nostalgia	we			The smile behind the telescope is so sweet that we can't get the meaning of the words. The childhood of everyone's are colorful and to this boy. He naturally loves the rain, the grass, mud, bunkers, they frolic and laugh in the nature. But now we're living in a modern technology times. More children frolic and laugh in high-tech film-flamery, like mobilephone, pads, and computers and so on. I think we'll miss the old fun we have in nature like the little boy in the picture.
3	F1	2	D	waste	dumping	shock	disgust	I			
2	F1	3	F	waste	dumping	behaviour change	possible	we			everyone has power, but the community has the greatest power
2	F1	4	D	waste	dumping	conflict (shock?)	responsibility	I	composition	challenged/revealed	
3	F1	5	J	waste	dumping	education	like	I			
1.5	F1	6	K	reuse	persistence	modern consumption	nostalgia	people/they			I can see that they have been repaired many times before. But this grandpa doesn't throw them away. Today people live fast and want new things... It is a big waste.
2	F1	7	O	environment	different perspective	behaviour change	importance	we			
1	F1	8	C	reuse	different perspective	fun/inspirational/joy	responsibility	I	composition/color		It has touched me deeply to see the picture and to give me some inspiration. What can I do for the environment. I take off a lot of garbage everyday and never think it can be used again
1.5	F1	9	I	redemption	poor yet happy	fun/inspirational/joy	productivity	we			We could see the smile on the child's face, and we can feel the joy of their hearts.
1.5	F1	10	L	harmony	child	love	connection	people/they			But they can't separate the girl from nature
1.5	F1	11	L	connection	simple lifestyle	rememberence	nostalgia	ta	colourful		Seeing the girl reminds me of my sister. My sister's age about the same age with her. My family spends the spring festivals together. There is a little snow in my hometown. Love is the only rational act
2	F1	12	C	reuse	younger yet active	fun/inspirational/joy		ta			
2	F1	13	F	water	dumping		responsibility	we			
2	F1	14	C	reuse	water	education	responsibility	we			
3	F1	15	F	water	dumping	reliance on nature		we			
1.5	F1	16	E	tree	child nature connection	reliance on nature	nature destruction	we			We just have a earth, so we need to protect it.
1.5	F1	17	E	tree	child nature connection	poor yet happy	joy	people/they			Today we browse many photos in my English class. But one photo gives me the touch of a the strong.
2	F1	18	N	transport		behaviour change	from little things big things grow	mix/non e			
1	F1	19	F	water	dumping	behaviour change	responsibility	we			This drawing gave me a lot of thinking. I don't want the same thing to happen again.
1.5	F1	20	E	waste	dumping	reliance on nature	responsibility	we			This photograph is very special and touch my heart.
1.5	F1	21	L	climate change	child nature connection	sensory connection	fear of loss	ta			The photograph shows us a little girl hold have a smell of grass, texture of ice, contact to the real , nature, this can make children create deep connections with nature.
2	F1	22	K	reuse		quiet introspection	modern consumption	mix/non e			
1.5	F1	23	J	recycle	education	from little things big things grow	responsibility	I			In my personal life I should do more to protect the environment. First of all I should save water and recycle water that is used. Then I think I should teach more people to protect our world and do something that can make our world better
2	F1	24	E	tree		reliance on nature	care	people/they			
2	F1	25	L	connection	child nature connection		responsibility	we			I think we should protect the environment, make more chance for children to play with snow
2	F1	26	D	waste	dumping	build infrastructure	responsibility	we	composition		
1.5	F1	27	F	waste	dumping		what will happen if	I			I choose this picture because it let me start thinking if we continue to produce so many rubbish.
2	F1	28	J	waste	dumping		responsibility	I			In my life, I usually rubbish the garbage together. This has brought trouble to the sanitation workers. And I found others like me disposing of garbage at will.
2	F1	29	C	reuse	younger yet active	behaviour change	from little things big things grow	ta			
1	F1	30	E	tree	different perspective	be grateful for what we have	what would we feel?	we		revealed	The words let me know the tree is important in people's life, and it looks pitiable. If trees have emotion, if tree can talk, would we cut it so lightly? First if we are trees, give fruits and flowers to humans, but would be cut in the end, what we will feel, angry or sad, so we should respect more about trees.
2	F1	31	D	waste	dumping		disgust (but changes)	I			When I deeply think about this postcard, this picture changes the dirty impression of dustbin in my mind. I begin to remind the meory that I have a deep love of environmental protection.
3	F1	32	G	environment	poor yet happy		good environment = good future	mix/non e			
1.5	F1	33	N	transport		behaviour change	from little things big things grow	we			If we do the things like what they do, how will our earth be now?
1.5	F1	34	K	grandfather	loss	rememberence	nostalgia	I			My grandfather is dead for 43 days. In my impression he always read lots of books and do something interesting in his room when he lived. This photo can let me remind much things about my grandfather. I am very much miss him.

## Appendix E - Photo-story engagement

### 12.1 Appendix E1 - Exhibition documentation

#### Portraits of Change I



Figure 187 - Portraits of Change I documentation A

## Portraits of Change I - continued

**The 13th Annual Sustainable Living Festival**  
Melbourne & Beyond ( 6-28 Feb 2016 )

[Home](#) > [Events](#) > Portraits of Change

This event has passed.

Climate Resilience Media Exchange presents  
**PORTRAITS OF CHANGE**  
See how communities are responding to climate change

This intimate photographic exhibition brings into visual dialogue grassroots responses to climate change in Bangladesh and Australia. Individually the images show the passion and purpose of communities taking action. While together their juxtaposition across the two countries' geopolitical, cultural, economic and environmental differences illuminate the complexity inherent in 'doing our bit for the planet'.

Michael Chew is a Melbourne-based photographer, environmental activist and researcher. This exhibition forms part of his PhD research exploring how urban communities responding to climate change in Bangladesh, China and Australia can learn from each other using photography and video.

Michael will be available Sat 27 Feb 12.30pm-2pm (with snacks) to discuss the images - please come along!

The exhibition runs from Sat 27 Feb until Sun 28 Mar - Sat 10am-4pm, Sun 5-5pm, Mon-Fri 10am-6pm

Further information can be obtained via [michael.chew@ecospark.edu.au](mailto:michael.chew@ecospark.edu.au) / 0465 477 874

**ADD TO my Festival**

**WHEN**  
Saturday 27 February  
10:00 am - 4:00 pm

**WHERE**  
Coburg Library  
Corner Victoria and Louise  
Streets, Coburg, VIC 3058

**COST**  
Standard: Free

**MORE INFORMATION**  
[Website](#)

**FESTIVAL FAN CLUB**  
Sign up for event discounts



Figure 188 - Portraits of Change I publicity A



**13 March - 20 March**  
12 March at 13:00 to 20 March at 16:00

**Coburg Library**  
Coburg, Victoria, Australia 3058

**About** Discussion

Write Post Add Photo/Video Create Poll

Write something...

**Details**

This intimate photographic exhibition brings into visual dialogue grassroots responses to climate change in Bangladesh and Australia. Individually the images show the passion and purpose of communities taking action, while together their juxtaposition across the two countries' geopolitical, cultural, economic and environmental differences illuminate the complexity inherent in 'doing our bit for the planet'.

Michael Chew is a Melbourne-based photographer, environmental activist and researcher. This exhibition forms part of his PhD research exploring how urban communities responding to climate change in Bangladesh

Olivia, Lauren and 17 other friends went

29 interested 20 went 174 invited

**SUGGESTED EVENTS** SEE MORE

**Vegetarian and Vegan Weekend**  
12 August at The Food Truck P...  
Shared to Vegetarian Victoria (A...  
Interested - Going

**Divine Shamanic Sound & Co...**  
12 August at Denora of Life Cent...  
Shared to Melbourne Event host...  
Interested - Going

**Wurundjeri History Talk**  
19:00 at Northcote Library  
Shared to Postgraduate Challen...  
Interested - Going

Figure 189 - Portraits of Change I publicity B

## Portraits of Change II

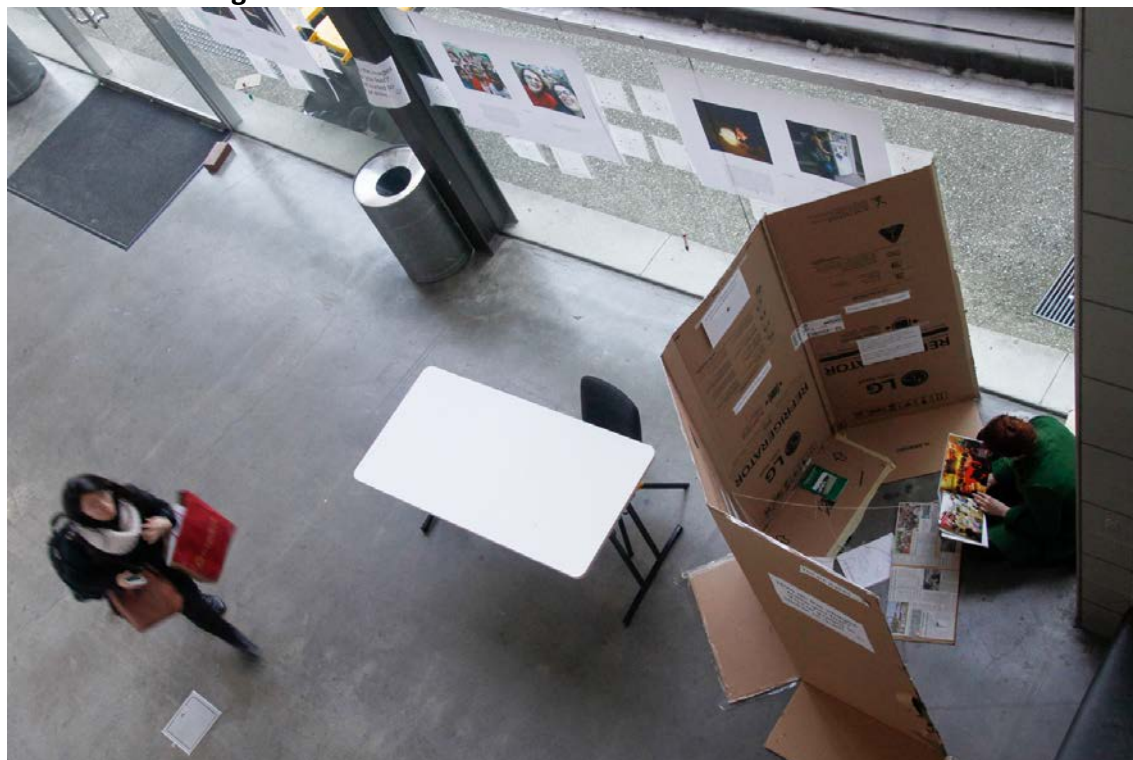


Figure 190 - Portraits of Change II documentation A

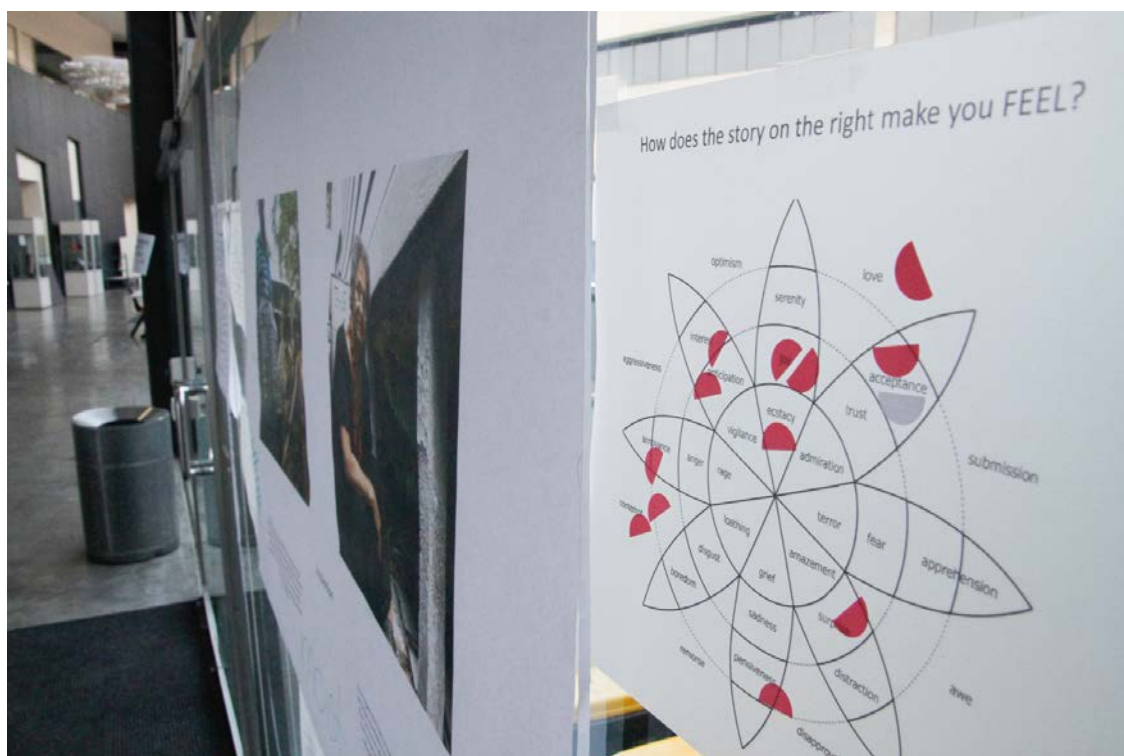


Figure 191 - Portraits of Change II documentation B



Figure 192 - Portraits of Change II documentation C

The image shows a Facebook event page for "Portraits of Change II: participation". At the top, there are two photographs: one of a man carrying large water jugs and another of a woman sitting outdoors. The event is scheduled for May 23 to June 2, hosted by Michael Chew at MADA Monash University Art Design & Architecture. The page includes an "About" tab, a "Details" section with a description of the event, and a right-hand sidebar with "Event Tips", a list of attendees, and "Related Events".

**23 MAY** Portraits of Change II: participation

Public · Hosted by Michael Chew

23 May - 2 June  
23 May at 7:00 to 2 June at 18:00

MADA Monash University Art Design & Architecture  
800 Dandenong Road, Melbourne, Australia 3145 [Show Map](#)

About Discussion

Write Post Add Photo/Video Create Poll

Write something...

**Details**

Interested in community climate action? You're invited to respond to photographs showing grassroots responses to climate change in Bangladesh and Australia. Individually these images show the passion and purpose of communities taking action, while together their juxtaposition across the two countries' geopolitical, cultural, economic and environmental differences illuminate the complexity inherent in 'doing our bit for the planet'. Viewers are invited to respond to the images using stickers and writing to describe their emotional impact. A cosy reflective space is provided for deeper engagement with the stories and images.

**EVENT TIPS**

**Use short event names**

A short name that represents your event will perform better because important info won't be cut off in News Feed.

[Edit Name](#)

Katie-Rose, Melissa and 4 other friends went

27 interested 8 went 201 invited

**RELATED EVENTS**

LA2016: Seth Kim-Cohen - Th...  
18 August at MADA Monash Un...  
93 guests

Figure 193 - Portraits of Change II publicity

## Portraits of Change III



Figure 194 -Portraits of Change III documentation A (jelly bean engagement incentive)

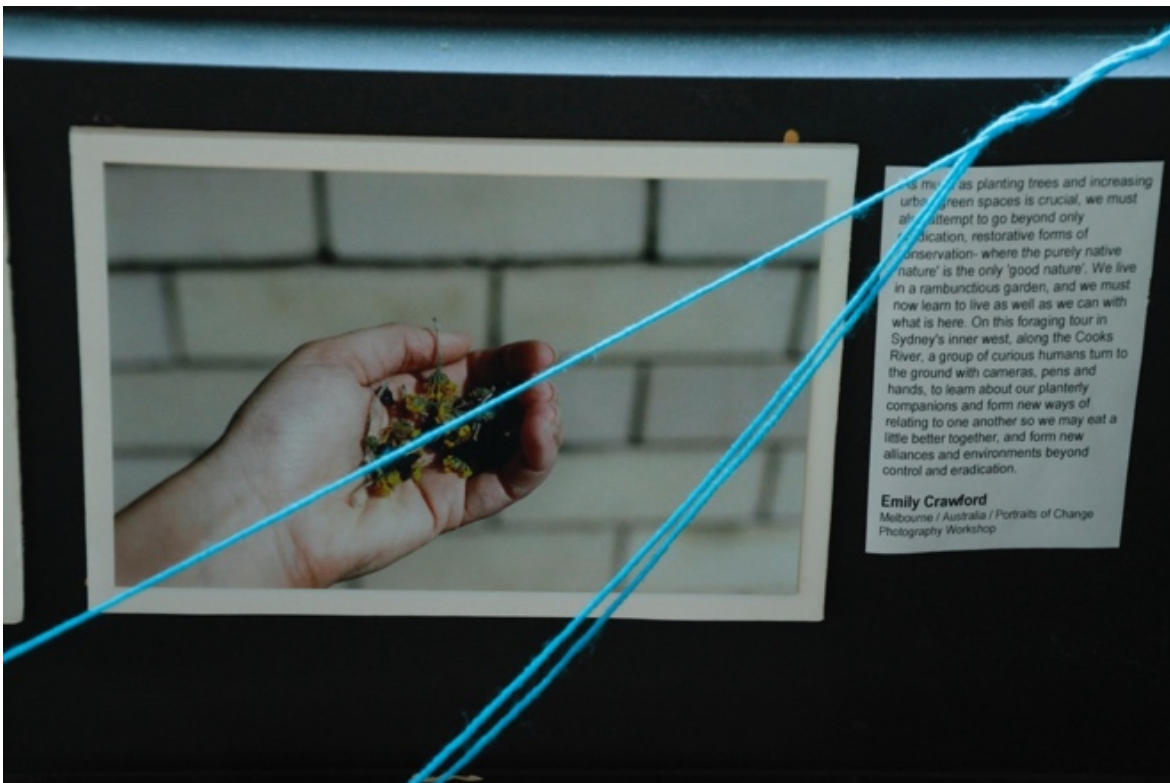


Figure 195 - Portraits of Change III documentation B



Figure 196 - Portraits of Change III documentation C



Figure 197 - Portraits of Change III documentation D

## Portraits of Change III

## Environmental photo-stories from Bangladesh, China and Australia

### Exhibition Synopsis

This literature art photogenic exhibition explores grassroots responses to environmental and climate change issues in Bangladesh, China and Australia. Urban environmentalists and youth in each country were supported to create photo-stories on these issues, which show their views on their local environment, ideas for how to protect it, and the inspiration behind taking local action. These commonalities are woven across the three countries' cultural, economic and environmental differences, showing the complexity behind taking local environmental action in a global world.

Free photography workshops will be run as part of the exhibition program and will provide opportunities for viewers to contribute to their own photo-stories to the exhibition and join this global photographic conversation!

Organiser Michael Chew is a Melbourne-based photographer-designer, environmental activist and action-researcher. This exhibition forms part of his PhD research exploring how urban communities responding to climate change in Bangladesh, China and Australia can learn from each other using photographic storytelling.



Exhibition Program Sat 4th - Tues 28th Feb

The exhibition is in two parts with two informal 'opening' events, both featuring brief talks about the background to the exhibition, along with snacks and refreshments.

Opening 1 - Celebrating Bangladesh and China Photo-stories  
Sat 4th Feb 3pm

**Free photography workshops**

Attend both workshops to create your own photo-story around environmental action. These will then be exhibited alongside the other photo-stories. Places are limited, registrations via the Library at The Dock Eventbrite page – please see a librarian if you need assistance.

Workshop 1 Sat Feb 11th 11am-1pm  
Workshop 2 Sun Feb 12th 2:30-4:30pm

Opening 2 - Celebrating additional photo-stories contributed in Melbourne  
Sun 18th Feb 3pm



## The Photovoice Method

The power of images has long been used to communicate environmental awareness by environmental groups and advocates. However, these images can often be polarised around dystopic despair and romantic hope. Meanwhile governments and corporations are increasingly deploying environmental imagery to convince us of their green credentials.<sup>2</sup> In contrast, there is potential for participatory visual methods to engage more fully in the complexity of environmental action.

Participatory photography, or 'photovoice' encompasses a wide-ranging field of image making practices for empowerment and advocacy. As a visual research methodology, participants commonly document and co-share aspects of their lives through photographs, which become participatory sites for storytelling, reflection, and broader social or policy engagement with issues affecting them. While photovoice has been around for over 20 years, this project is unique in its focus on sharing photo-stories across multiple sites in order to inspire environmental action.

### Step 1 - Photography workshop



## Step 2 - Photography sessions



### Step 3 - Selecting photos and developing captions



## Climate Resilience Media Exchange (CRME)

The CRIME program is behind this exhibition - it is a Melbourne-based startup non-profit which is emerging from these PhD action-research activities. Its mission is to use participatory photography to harness the power of images for inspiring environmental action globally.

### CRIME Goals

- To empower and connect urban communities from 3 countries through participatory visual story telling
- To produce a range of high quality visual outputs showcasing urban climate change responses
- To develop and compile relevant applied research into participatory visual methods and cross cultural story exchanges

Australia, Bangladesh and China compared

Living in Australia and being far from other places, it's easy to forget how it is to live in other countries. While we enjoy our comparatively high standard of living, let's also remember what cost this can have on our environment.

How can we use what lucky resources and opportunities we have to make a difference?

[illegible]

Source: [iftweremyhome.com](http://iftweremyhome.com)

Take your next step for environmental action

If you are inspired by this exhibition, we would invite you to take the next step by sharing your thoughts and making a online pledge to take environmental action. Scan the code below or follow the link:

[cognitoforms.com/Crme1/Feedback](http://cognitoforms.com/Crme1/Feedback)

Alternatively use the paper form or comment book below.

Taking the pledge you will go into the running to win a copy of the photography book "Bangladesh Land and People".



## Acknowledgements and Information

This exhibition would not have been possible without the tireless efforts of all the volunteers, and workshop participants who have been involved in Australia, Bangladesh, and China.

Further info: [michael.chew@monash.edu](mailto:michael.chew@monash.edu) / 0468 477 874

As part of the National Sustainable Living Festival 2017

PhoneCycle generously donated the cameraphones used on this project.  
Donate yours at [phonecycle.com.au/](http://phonecycle.com.au/)



Figure 198 - Portraits of Change III Interpretive signage

## 12.2 Appendix E2 - Exhibition participation data - Portraits of Change II

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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Figure 199 - Raw sticker data

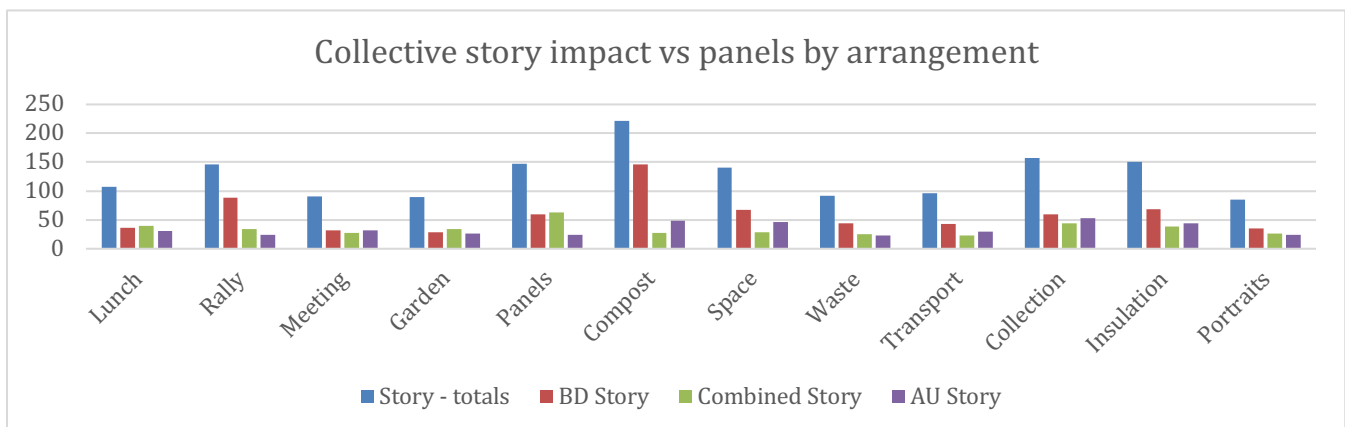


Figure 200 - Collective story impact vs panels by arrangement

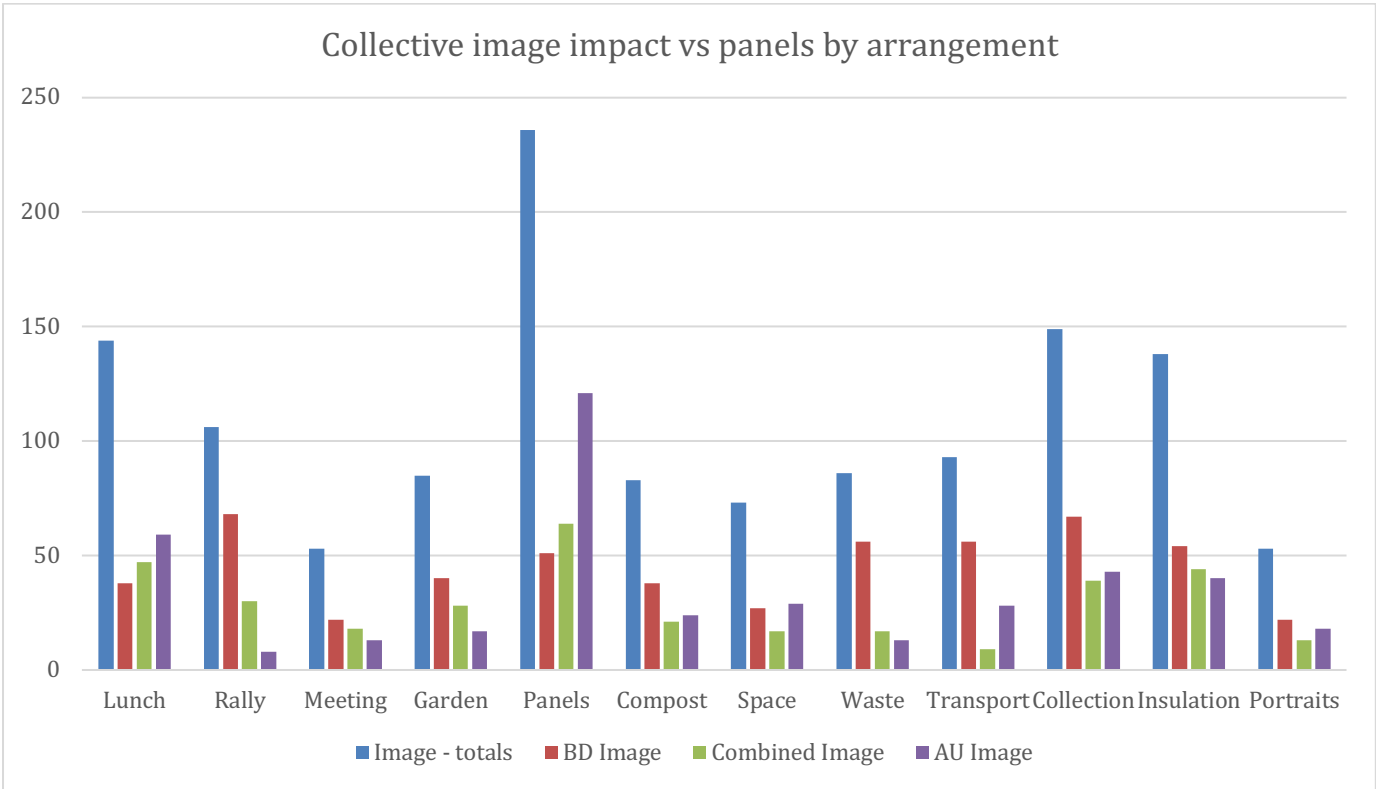


Figure 201 - Collective image impact vs panels by arrangement

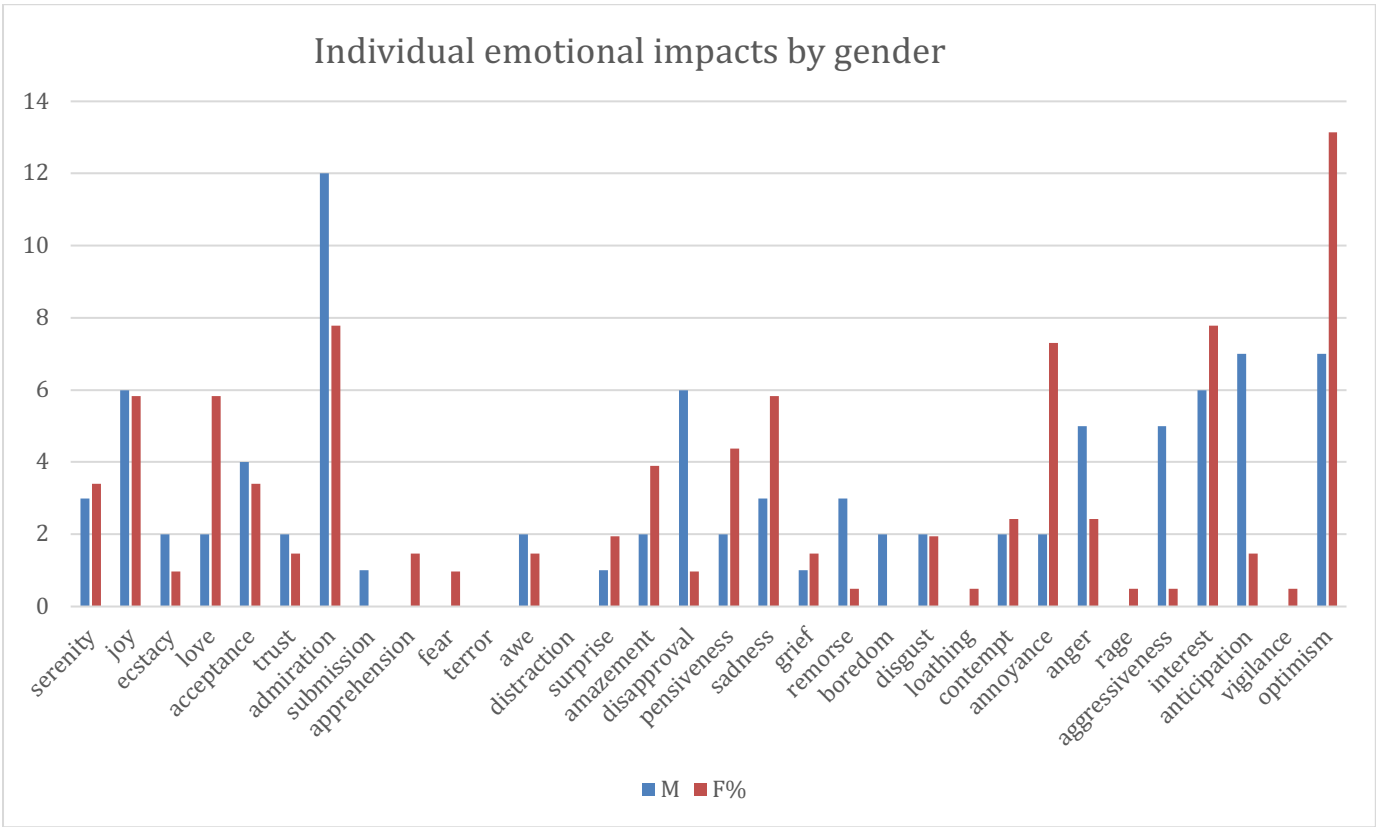


Figure 202 - Individual emotional impacts by gender

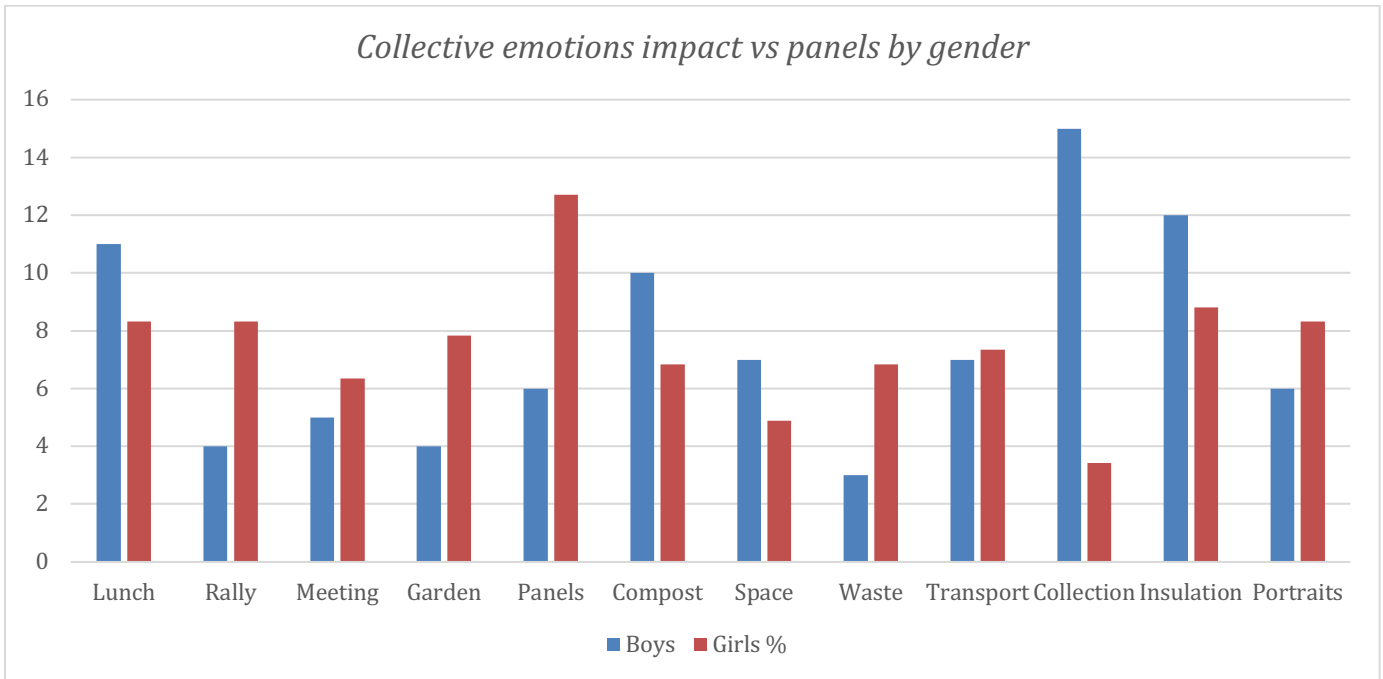


Figure 203 - Collective emotions impact vs panels by gender

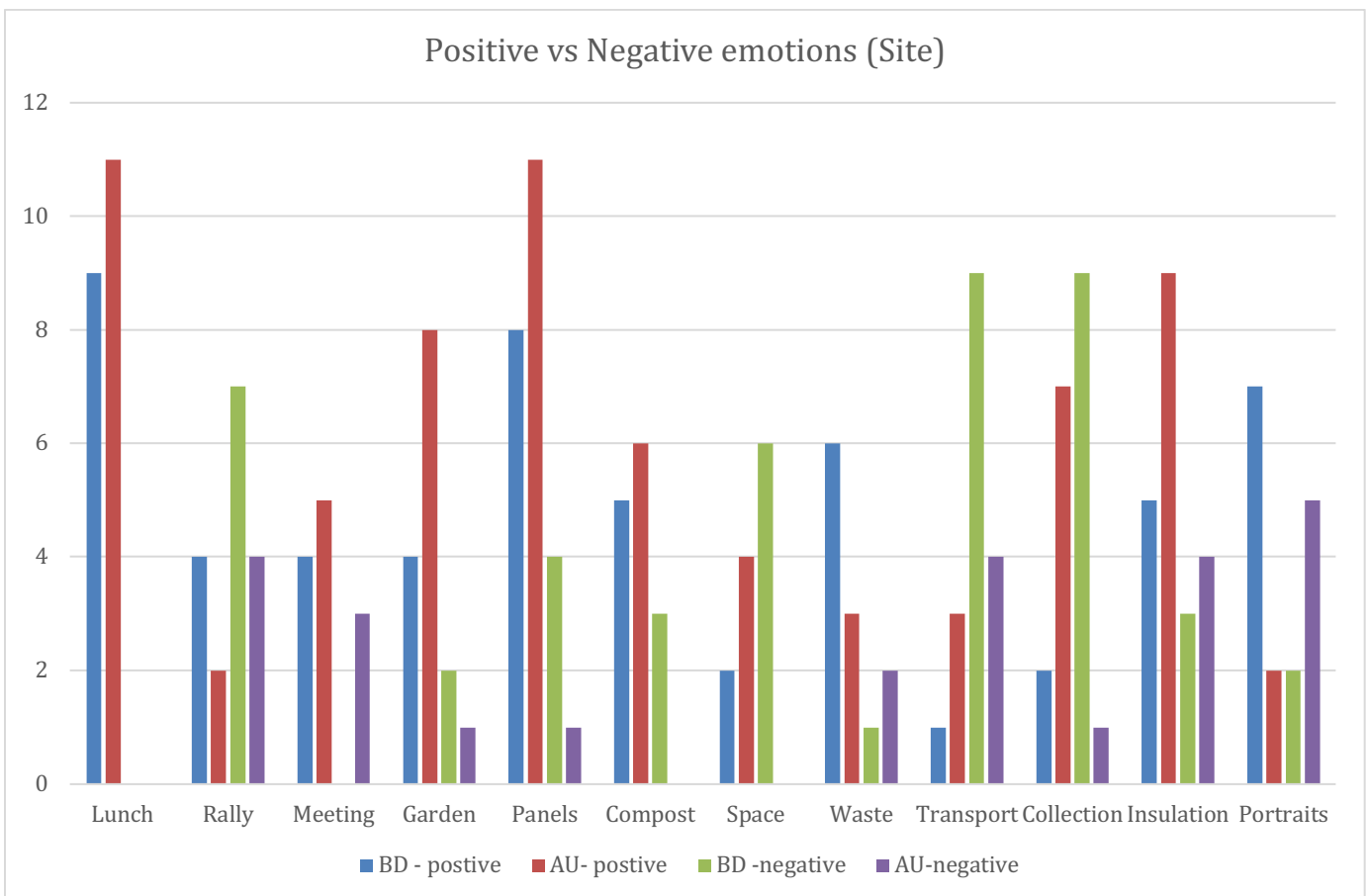


Figure 204 - Positive vs Negative emotion comparison

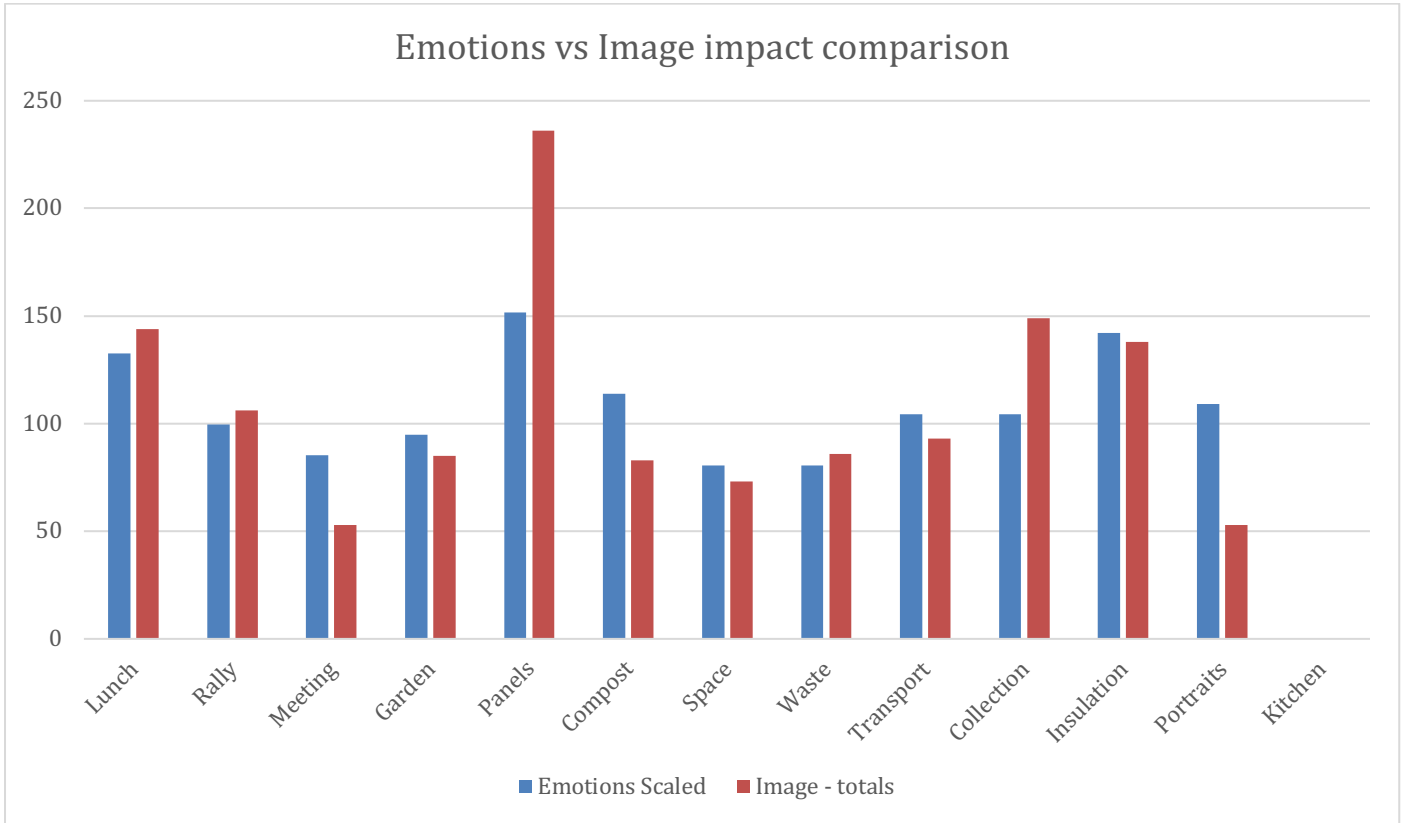


Figure 205 - Emotions vs. image impact comparison

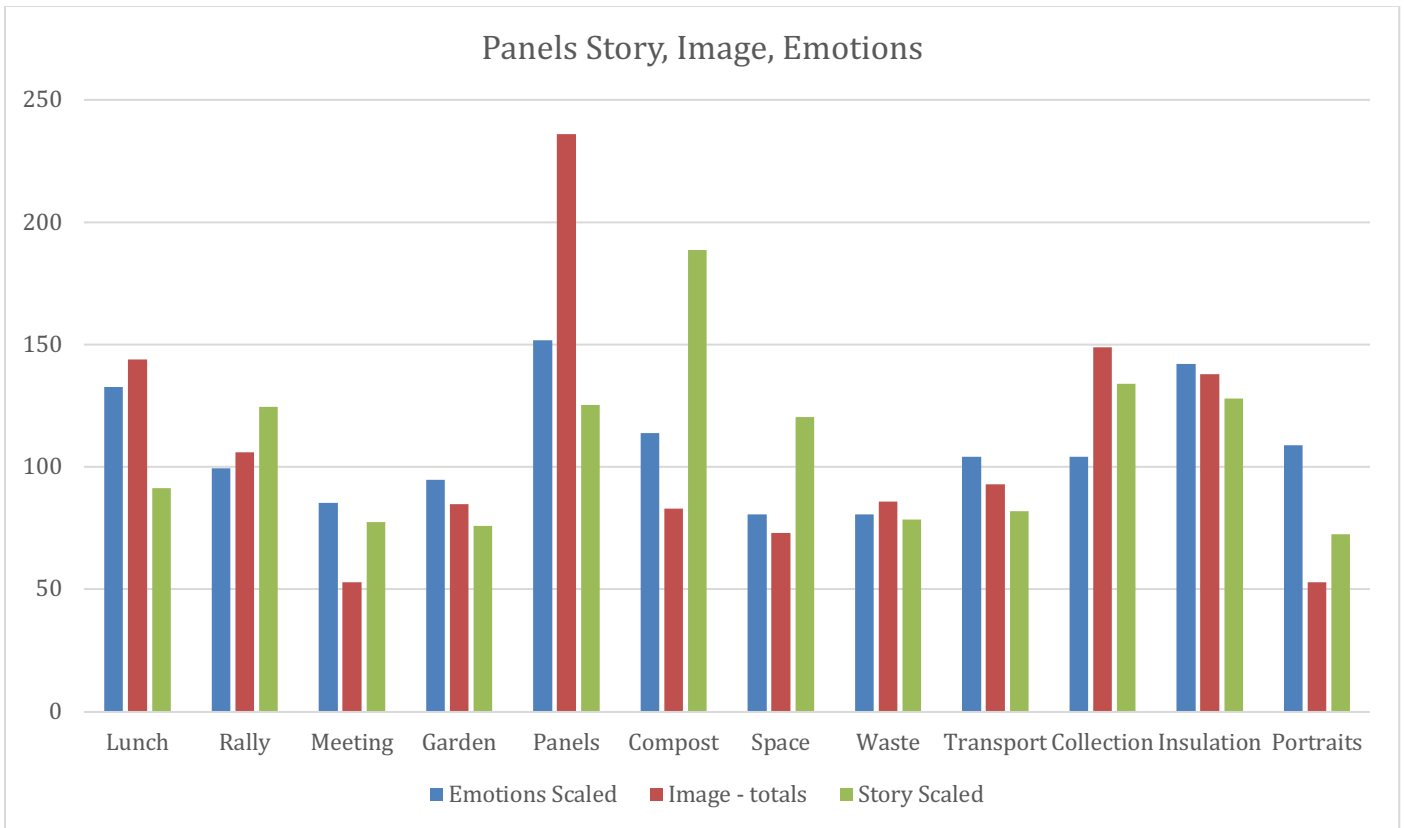


Figure 206 - Panels Story, Image, Emotions comparison

# Portraits of Change II: participation

## 1. Portraits



### Portraits

Women and girls are particularly vulnerable to natural disasters. For example, in some cyclones affecting Bangladesh between 2007-2009, it is estimated that over 80% of the casualties were female. Contributing factors include lack of warning due to being at home, and cultural norms and clothing that can hamper movement during disasters. To address this, the local non-profit INDAB has set up a special disaster management course for girls in the coastal district of Barisal. Participants are taught how to be better prepared and are encouraged to become change agents in their homes and communities through dialogue and education. These girls are from Babugonj Girls Pilot High School.

At the Climate Justice Rally, my best friend protested against the Franklin Dam and has been a real inspiration on the environmental front...

What impact does the story on the LEFT have on you?

This is the combination of the image and text.

	1	2	3	4	5	6	7	8	9	10	
Low	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	High

What impact does the story on the RIGHT have on you?

This is the combination of the image and text.

	1	2	3	4	5	6	7	8	9	10	
Low	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	High

Figure 207 - Online photo-story engagement (Screen capture)

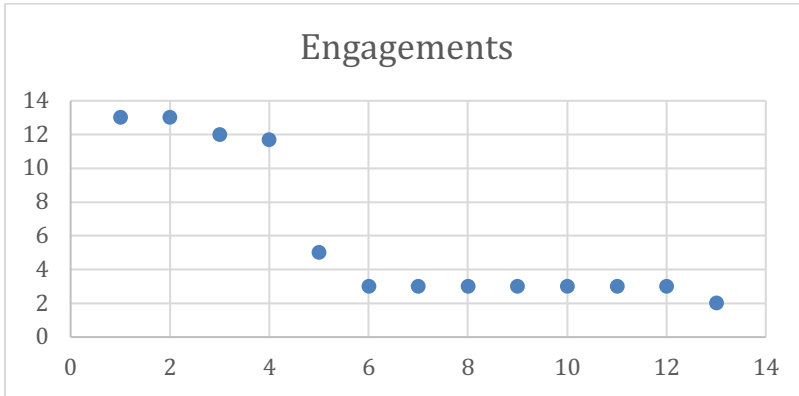


Figure 208 - Engagements vs panel position (online)

Preliminary evaluation of participation aspect

	PER PANEL	FEELING	IMPACT	TOTAL
Total responses	23	262	275	537
Exhibition period (days)	15	15	15	15
Responses/day	2	17	18	36

Figure 209 – Overall Responses

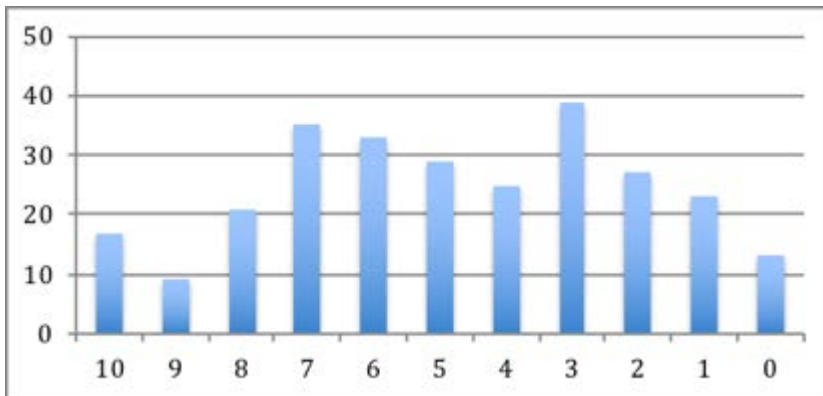


Figure 210 – Frequency plot of responses recording impact (FORM)

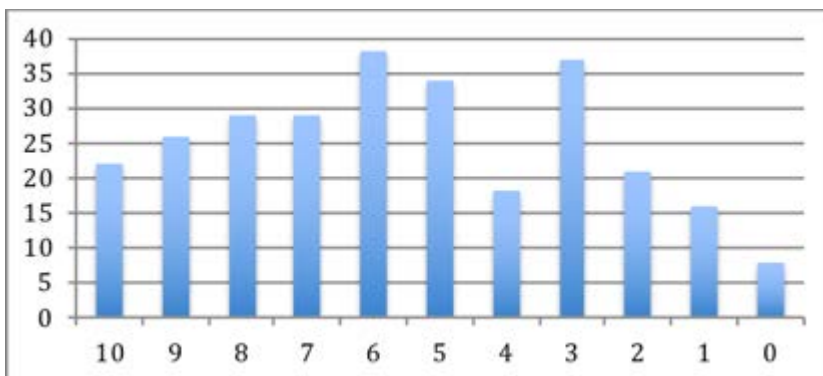



Figure 211 – Frequency plot of responses recording impact (CONTENT)

## 12.3 Appendix E3 - Exhibition participant datasets (Bangladesh/China)

**Volunteer For Bangladesh**  
Project Proposal


  
Trust Wing of VABD Foundation

Name of the Project: (Project Title)	<b>Photo Voice Exhibition</b> <b>#SavethePlanet</b>
Date of Implementation:	December 4 <sup>th</sup> , 2017
Time Duration of Project Implementation	<b>3-4 Hours</b>
Location/Place of the Project (Write down it specifically)	Jaago Foundation Rayerbazar School.
Objectives/Goals of the Project	<ul style="list-style-type: none"> <li>• <b>Create awareness about Climate Change</b></li> <li>• <b>Give everyone the opportunity to represent themselves &amp; tell their own Story.</b></li> <li>• <b>Create awareness of local environmental issues &amp; find solutions</b></li> </ul>
Why do We (VBD) want to do the Project?	<ul style="list-style-type: none"> <li>• <b>VBD &amp; YDP of Jaago Foundation is working with Sustainable Development Goals.</b> Since <b>SDG goal 13</b> invites us to take actions against <b>Climate Change</b>, we can implement the project to make a better world.</li> </ul>
Who are the beneficiaries of the project?	<ul style="list-style-type: none"> <li>• <b>Everyone on the planet &amp; the Next Generation</b> including plants, animals, nature &amp; the planet itself.</li> </ul>



Figure 212 - VFB Proposal for Jaago Exhibition

Figure 213 - Facebook event invitation Jaago Exhibition



Figure 214 - Weibo event invitation ZUMC Exhibition

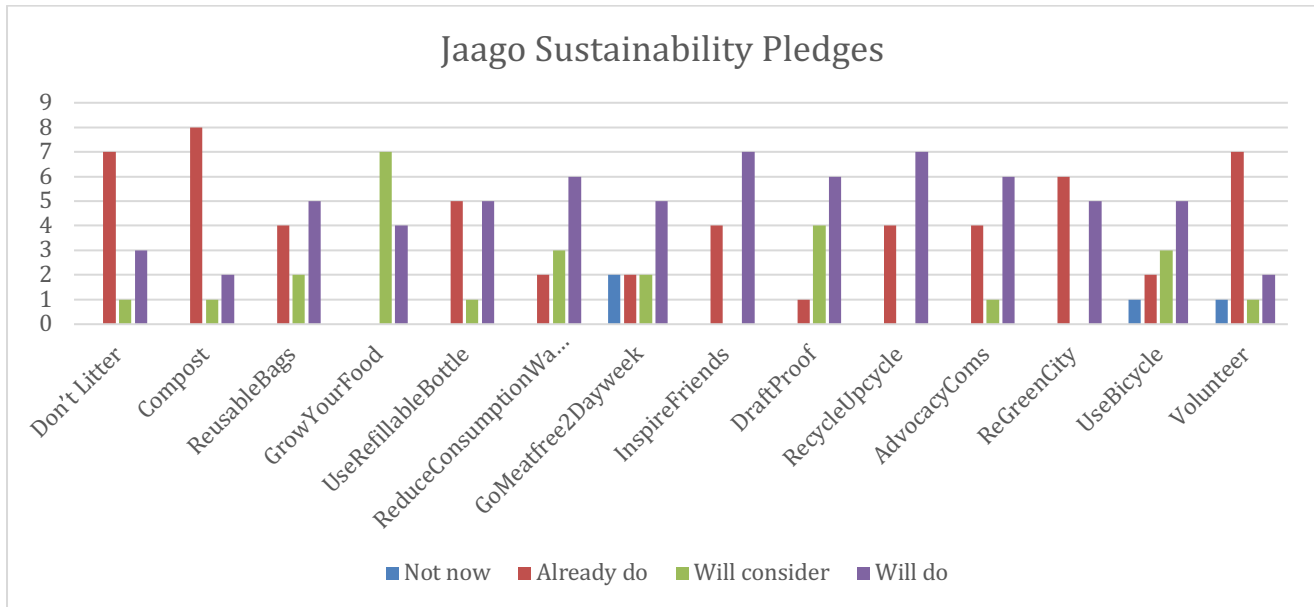


Figure 215 - Jaago online pledges

Table 46 -Bangladesh Exhibition Evaluation Survey Data

A Gender	Major	Exhibition Experience	Increased Knowledge	Increased Actions	What You Liked in the Exhibition	What You Did Not Like in the Exhibition	Message	Your environmental action	When?	Friend to assist?	Data consent?	Entry Timestamp
20 Male	Marketing	Good	Agree	Agree	The old man picture	All are average	Spread the knowledge of environment		From Today		Yes	19/12/2017 3:56 PM
22 Female	Marketing	Average	Agree	Neutral	Like the Openness about the exhibition rather than a exhibition room.	All are Covered well, some photos had good contrast and Attractive visual, but sometimes I couldn't get enough details and message in it.	As we don't want to harm our part of the body, same as should not harm the part of our living environment.	Everyone's little actions could lead to a big change.	Next month	Ashkur Leon.	Yes	19/12/2017 3:28 PM
23 Male	Marketing and HRM	Good	Neutral	Agree	Like the Openness about the exhibition rather than a exhibition room.	All are Covered well, some photos had good contrast and Attractive visual, but sometimes I couldn't get enough details and message in it.	As we don't want to harm our part of the body, same as should not harm the part of our living environment.	Everyone's little actions could lead to a big change.	Next month	Ashkur Leon.	Yes	19/12/2017 1:38 PM
23 Male	Environmental Science & Management	Good	Neutral	Agree	1. Allocation 2. Service 3. Theme of the exhibition	1. Lack of given proper message to the audience	It's really need for you, for your family, for your future generation...	Rooftop gardening and rain harvesting system	Next week	Nazmus Sadat Azmonno	Yes	19/12/2017 11:29 AM
21 Male	CSE	Average	Agree	Agree	I liked the way that they were trying to give a message to the people through photographs about environment.	It would be great if they give those message through a not selfmade photo.	Every country should take a look at their environmental situation in every years. I think if all countries teach their children that how to take care of Environment.	I would say to people that they have to take care of environment.	Next 3 months	I have to think about it.	Yes	18/12/2017 9:10 PM
22 Female	Environmental Science	Average	Neutral	Agree	awesome photography very natural and realistic moment captured in that photography	the overall management and presentation of photos were very poor	keep clean, stay healthy and make environment beautiful		Next week		Yes	17/12/2017 11:35 PM
20 Female	Environmental science	Very Good	Strongly Agree	Agree	Everything	No Nest	Love the nature		Next week	Nanriba	Yes	17/12/2017 10:54 PM
21 Female	Environmental Science	Good	Agree	Strongly Agree	Stories about the pictures. This thought seems really innovative and interesting to me. Loved it.	The amount of pictures could be more.	Be a true part of the green world.	More recycling and tree plantations.	Next 3 months	Sarah, Ilmes, Nishat	Yes	17/12/2017 10:22 PM
21 Female	Environmental Science	Good	Agree	Strongly Agree	Stories about the pictures. This thought seems really innovative and interesting to me. Loved it.	The amount of pictures could be more.	Be a true part of the green world.	More recycling and tree plantations.	Next 3 months	Sarah, Ilmes, Nishat	Yes	17/12/2017 10:22 PM
18 Female	BBA	Good	Agree	Agree	1. by doing some small efforts we can make our environment sustainable. 2. the story behind the pictures are really inspiring.	1. if there been more pictures than we can know more about the positive action for environment. 2. the story behind the pictures are really inspiring.	increase the uses of recycle, reuse products. Use renewel energy instead of non-renewel energy. instead of using gasoline to drive, walk or take bicycle. Avord of plastic bags and use cotton bag or jute bags.	Will try to make more green city.	Next week	Nipa Jahin, Naznin Nahar, Khairul Khamom	Yes	17/12/2017 10:15 PM
19 Female	ENV	Good	Agree	Agree			The earth is like our mother. From environment we get all things to survive. So we should love & care our earth. We should plant more trees, develop waste management, prevent environment pollution, use energy resources carefully.	Plant more trees.	Next 3 months	Fahana Momtaz Lorin	Yes	17/12/2017 6:51 PM
21 Male	Finance	Good	Agree	Strongly Agree	Everything was well organised.	The photos could be a bit bigger in size.	We should be more serious about our environment and try our level best to save it.		Next month	Eshan sanad	Yes	17/12/2017 6:31 PM
24 Male	Environmental management	Very Good	Strongly Agree	Strongly Agree	In one word, mainly the idea of this exhibition which is very innovative for our department	Actually it should be something broadly, it's like the exhibition should be open for all	Stay connected to the nature, the nature will protect you		Next month	Do something for nature	Yes	17/12/2017 5:44 PM
21 Male	Accounting	Very Good	Strongly Agree	Strongly Agree	The pictures of Sarah Subhana Islam because picture reflects the human nature and environmental gratitude.				Next week		Yes	17/12/2017 4:32 PM
20 Male	Environmental Management	Good	Strongly Agree	Agree	The pictures are really increase my knowledge..... And here in the exhibition I have learned many things about Bangladesh's environment...	You can add more description	Save the environment		Next week		Yes	17/12/2017 4:07 PM
22 Male	CSE	Average	Agree	Strongly Agree					Next week		Yes	17/12/2017 4:04 PM
2 Male	Environmental science	Very Good	Strongly Agree	Strongly Agree	I really appreciate the creativity of the work. The entire theme of the whole presentation. This gave me the idea of how we can work to change the world for a better place to live in.	Personally I liked everything about it. If there was a background presenting levels of different colors it would have enhanced it even more.	They can be inspired to work as a team and use recycling reusing and composting to greatly reduce the waste they generate everyday. Hence it will benefit them as well as their surroundings thereby increasing their will power to keep these into practice.	I will consume fewer products	Next month	Samiha	Yes	17/12/2017 3:21 PM
22 Male	Environmental Science	Good	Agree	Agree	The concept of photography. In how small way a depiction of our current environment was shown was amazing.		Human beings need environment for its survival but environment doesn't need human beings for its existence. We are living in an anthropocentric age but we cannot survive without incorporating nature in this belief.	Have a different perspective on environment	Next week	Furraas, Afrida and sadman	Yes	17/12/2017 3:13 PM
30 Female	Environmental science	Good	Agree	Neutral	Pictures Volunteer	Less volunteers No laptop with internet	Degrading environment has drastic effects on countries like Bangladesh and it makes our living difficult	Plantation, use less energy	Next month	Nuzhat Masud	Yes	17/12/2017 3:14 PM
20 Female	Env	Average	Neutral	Neutral					Next month		Yes	17/12/2017 3:00 PM
24 Male	marketing (bba)	Average	Agree	Agree	Using ebooks instead of papers.	Most of the pictures dont seem to be appealing.	We are suffering for your doings. Stop it.		Next week		Yes	17/12/2017 2:54 PM
24 Female	marketing	Good	Agree	Agree	Pictures of nature and recycled ideas	A picture of a guy with do not waste water! The concept was very poor and unclear	They should be more concern about environment!		Next 3 months		Yes	17/12/2017 2:50 PM
28 Male	Environmental science	Good	Agree	Agree	I like the concept they thought, they are light and eye catching problem and situations	There should be more pictures	The message is clear, that if we don't start to act now, the degradation will increase.	Stop thinking and act more.	Next month		Yes	17/12/2017 2:46 PM
20 Male	Environmental Science	Very Good	Agree	Agree					Next 3 months		Yes	17/12/2017 2:44 PM
19 Male	ESE	Good	Neutral	Agree					Next 3 months		Yes	17/12/2017 2:43 PM
19 Female	Environmental science	Very Good	Strongly Agree	Strongly Agree					Next 3 months		Yes	17/12/2017 2:41 PM
53 Male	Engineering	Very Good	Strongly Agree	Strongly Agree					Next month		Yes	17/12/2017 2:40 PM
20 Male	ESE	Very Good	Agree	Agree	Everything				Next 3 months		Yes	17/12/2017 2:38 PM
21 Female	Environmental management	Good	Agree	Strongly Agree	thoughts and picture	place			Next week		Yes	17/12/2017 2:29 PM
21 Female	environmental science	Good	Agree	Agree	thoughts	nothing	awareness	tree plantation	Next week	yes	Yes	17/12/2017 2:29 PM
20 Male	Env science	Average	Neutral	Agree	The pictures and the story each picture promotes	They could've been presented better	Waste is a future resource inform yourself as to how you can apply it positively	None that I can think of at the moment	Next week	Ahmed Ali	Yes	17/12/2017 2:23 PM
23 Female	Environmental science	Very Good	Strongly Agree	Strongly Agree	I like the picture of the boy who is flying the kite in the sky it feels so fresh and clear...	There is no photos which I dislike	Lead a sustainable life and love environment as we love us...		Next week	Meem Farha	Yes	17/12/2017 2:23 PM
18 Male	Environmental Science	Very Good	Agree	Agree	Photos are so nice. We can learn about many positive things from those photos	Place were not well decorated. publicity was poor that's why many of us don't know about this program...	Love ur environment and don't ruin it. be positive and do positive with nature. nature will pay you back good feedback	bottle recycling next day.	Next week	Plant trees	Yes	17/12/2017 2:16 PM
18 Female	ESM	Average	Strongly Agree	Strongly Agree	It can improve my thinking power.	Everything is good.	Don't waste.		Next week	Alert everyone	Yes	17/12/2017 2:02 PM
18 Female	ESM	Average	Strongly Agree	Strongly Agree	It can improve my thinking power.	Everything is good.	Don't waste.		Next week	Alert everyone	Yes	17/12/2017 2:02 PM
23 Male	Environmental Science	Very Poor	Agree	Agree	The perception of people; how each individual sees the world, its beauty and its problems.	Could've been in a larger scale	One of the major problems in this world is food, but is wasted in major amounts. Please be careful about this.		Next month		Yes	17/12/2017 1:54 PM
24 Male	Environmental Management	Very Good	Strongly Agree	Strongly Agree	More exhibition regarding this required				Next 3 months		Yes	17/12/2017 1:48 PM
23 Male	Marketing	Very Good	Strongly Agree	Strongly Agree	We always see negativities happening around us. related to the environment in exhibitions, TV, newspapers etc but this exhibition is different. It focused on positivity which will inspire others to take one step forward to save the environment.	Nothing	This planet does not need us, we need this planet. Hence, we should take necessary steps to save the environment. Even a small positive act from each of us individual can bring big differences to the degrading environment.		Next week	SHROTA P KADAL	Yes	17/12/2017 1:13 PM
22 Female		Poor	Neutral	Strongly Agree					Next 3 months		Yes	14/12/2017 1:54 PM
17 Female	Work	Good	Agree	Agree	Amateur photography can create magic. It's the perspective of an individual who can tell a story, not a high qualified camera. It was amazing to see that the kids of such young age have captured moments like these.	The workshop should have been more lengthy for the kids to learn more about photography, then the outcome would have been much better.			Next 3 months		Yes	18/02/2018 4:56 PM
25 Female	Work	Very Good	Agree	Agree	I loved every bit of the exhibition. The way these small kids expressed their thought was really amazing.	if we could give them a little more time to take the photos that would be great.	One does not need to be aged to bring a positive change in our environment. All we need is to express our thought and care for our future.	We already run a campaign to clean our city call My Road My Responsibility.	As soon as we receive permission from our organization	Volunteer from Bangladesh	Yes	15/02/2018 3:18 PM
28 Male	Work	Very Good	Strongly Agree	Agree	Idea, Captions, awareness, Presentation	Number of pictures should be increased	We won't have a society if we destroy the environment.		Next 3 months		Yes	17/01/2018 2:37 PM
27 Male	JAAGO Foundation	Average	Agree	Agree	Involvement of the School Children	More pictures could have been included. Display size could be made bigger. Picture selling option could have been there.	Save the Environment to Save Yourself.		anytime	Anyone	Yes	16/01/2018 3:12 PM
20 Male	CSE student BAURJ, Volunteer BVBD	Very Good	Agree	Strongly Agree	The best part of the exhibition was that, the kids were the ones who took the photos, they wrote down the story and they were the ones who were describing the story to the audience.  I mean to say is, They got a platform to share their own story to create awareness.	Everything was fine to me at the exhibitions.  But maybe we should reach more people to create awareness, make it big & raise awareness in Social Medias.	The Earth is our home. Maybe You and I have never met, but we live in the same world.  It is not our responsibility to take care of our home?	The exhibition increased awareness among the people. But we should also take actions to make our Environment Green I #PlantTrees	Next 3 months	Volunteers of VBD	Yes	16/01/2018 1:29 PM
28 Male	Work	Very Good	Strongly Agree	Strongly Agree	Student describing their own photo theme?		Green environment for better tomorrow.		Next 3 months		Yes	15/01/2018 9:38 PM
28 Female	JAAGO Foundation	Very Good	Agree	Agree	Arrangements was good	this should be organized in a bigger scale	to get something you have to give little-So we have to think little about the environment		Next 3 months		Yes	15/01/2018 8:43 PM
25 Male	Work	Very Good	Strongly Agree	Strongly Agree	The thinking power of the kids in their photos.			Making public awareness	Next 3 months		Yes	15/01/2018 2:41 PM
23 Female	Work	Very Good	Strongly Agree	Strongly Agree	Students Participation.		1. Earth is our home. 2. A clean environment is essential for healthy living.		Next month		Yes	15/01/2018 2:31 PM
26 Female	MDS	Good	Agree	Strongly Agree	The subjects of the photograph.		Earth is the only thing we all have in common, lets save it together.	Saving the Arctic.	Next 3 months		Yes	15/01/2018 2:26 PM
27 Male	Jaago Foundation	Very Good	Strongly Agree	Strongly Agree	It's really well organized event.	Every thing is well in this exhibition. But I think lighting system is not good in this event.	Please save our environment for our better future.	Save water	Next week	remove water bottle from road	Yes	15/01/2018 2:29 PM

## 12.4 Appendix E4 - Interview datasets

Table 47 - Photo action interviews - SLF 2019

Gp	Participant #	Photo Letter	Reason for selecting photo-story	Message	Action
2019 SLF	1	B	didn't look happy... maybe they're escaping a hard life, flooding/bangladeshes.... aspects for first world things, but still trapped	I feel ashamed and guilty and about our western denial over climate action and that by this lack of action were leaving you to struggle with immediate impacts that we won't feel. I feel Ashamed that my country is so self focused that were not considering your needs and suffering.	extinction rebellion is inspiring, e - putting pressure on governments. the groundwork has been done for people to be more perceptive
2019 SLF	2	C	She so little and is still being active despite that old bike and the poverty around her.	When it's so easy to feel hopeless, this image helps me feel inspired, a renewed sense of hope to effect change in my own community.	letter writing party
2019 SLF	3	J	coprotatis and indigenous mix, people are shading from the former, under tree contrast of elements, wealth and poverty	beautiful photo! this contrast is not only in bd but also in australia... I hope this gap was will be closed in future. 4)	making online course connection between personal and planetary health
2019 SLF	4	L	I recognise the look of that rubbish - some of its might be mine ...but might be alien	sorry that were stuffed UP THE WORLD. wish that it's a nicer place in true suture... thanks for doing recycling that it isn't in a river. I hope that you can go school and learn	emailing politicians
2019 SLF	5	E	harm to the environment and the people living here - feeling sadness	thank you for being able to appreciate the beauty in what is there and doing the hard work in cleaning it up	local campaign out less single use plastic
2019 SLF	6	D	from perspective of nature, identifying with/as nature. beauty and contrast of tree colours with starkness of playground, and beauty of natural kid play, natural play ground is anywhere, they are the future. empathy between nature and life	nature learns by playing, so important to continue to to play. hope to see you play in more nature filled environment, with more trees. let's grow more trees	bio mimicry walks. being curious and mindful of nature and sharing that with others... to share more joy in nature and discovery. cultivating more curious its.
2019 SLF	7	K	sunlight is appealing, and enjoy the message	the sun sunlight and environment is important beneficial for humans	no new new clothes for month
2019 SLF	8	K	inspiring me to get out into nature... wet take it for granted that we always will have nature, but here so many threats... the wall shows human threat to nature, nature responding	I'd love to know more about your story behind the photo... what has made the, feel that way. what active steps are they taking to reduce their impact	learning from inspiring people. out what else I can be doing, inspire friends and colleagues. aim for plastic free over the next
2019 SLF	9	B	we often see poor countries as ignorant an uneducated, not actually they are the most resourceful people in there world, be used they need to be, but also religious cultural beliefs about environment. you can seek the directly taking action, we in west see it as dangerous, but actually it's the best adapted for their environment	I'm with you on this action on climate change encore, not at justice, I'm inspired by the way that you people are living, we can learn from you, I would be happy to do what you're doing, but it's barrier	pledge is to buy food in bulk, and use my own bags for rest of year xxxxxzaqaaa
2019 SLF	10	D	I like the contrast between the energy of life into me things come and cycles of life, we beco, part of it, the simplicity, embodies lists nature gives an inspiration hits	being grateful for what they have, we over here have so much, too, joy, I admire that gratefulness that you have no n the simply hog	reduce my waste by 40%
2019 SLF	11	L	a great activity little into sort waste with people, festive, ideas to do friends good feeling	kids are good too community. people I know collect rubbish from local creek, so it's motivating to see you doing the same thing	planting indigenous plants giving to propel \$100 year 30/40 plants pay it forward
2019 SLF	12	B	it's fascinating - one ask never see this in my country Switzerland... they are flexible adapting to situation	isn't this dangerous.?! I'm very curious about it	use my bike more than scooter in city, and reusable bags supermarket
2019 SLF	13	A	I like that she is showing herself, that it's. young woman who is doing something didactic, made think about how we put poor countries in a box of not knowing etc... she can be teaching	I respect you for taking this photo, climate change is no longer a question... in my country it's optional to act, but I understand that people over there don't have luxury.	native garden in Canberra... learn about natives
2019 SLF	14	E	I like the contrast, you don't realise how beautiful it is until you get rid of the rubbish.	I agree with your photos, I want to visit the cleaned place... as its full of life	read elephant in the sky, and reflect about flying.
2019 SLF	15	J	we all rely on nature... the people look tired and frustrated.	make me think of how people in my city are rushing around and don't take the time to sit and spend time in nature	boycott big super makers and buy things locally, start with
2019 SLF	16	J	I'm curious, I want to know more... tension between the structures and the nature, sweeping nature away but it's also protesting them	I can relate to the heat being here in Australia, I feel that the people are vulnerable, I understand and share your concern about the environment and how it's affecting them. doesn't seem so far away...	decreasing consumption, maybe even changing my job, make a plan with my husband to look at my work, contributed with community to community
2019 SLF	17	B	I can find this I, Ge in my country as well. so can relate, I like adaptations	good effort capturing the idea of mobility in our times.	be responsible consumer, living form, reusable, cycling,
2019 SLF	18	E	he have been in Thailand and he remember the it's dirty landscape	remains him to keep clean the water	hi have the company, solar energy. Already do something
2019 SLF	19	H	they've collected the waste, but no one to go... keeps piling up... the place is run down	I'm making changes in my life about the 3Rs, I would like you to think about refusing, before recycling	no food packaging for 2 weeks, invite a friend
2019 SLF	20	K	green and the sun, hopeful and positive. words resonated, we often take nature for granted and assume everything will be normal but it won't	I agree, and not everyone is ready to do the, but lots of people around the world share the passion to care for plants	already trying to reduce plastic, listened to a talk and now thinking more about reuse and repurposing and other alternatives to new, specifically going to teach self to make beeswax wraps from opshop cotton and maybe teach others, would be new to teach others bit know people want to learn, including mum
2019 SLF	21	E	shows a clear contrast between clean green nice river with the polluted river	totally relate to the image easily because in La Paz Bolivia are also polluted full of trash	reduce waste, use bike and public transport, no longer use plastic bottles, trying to part with it. constant commitment to keep reducing plastics
2019 SLF	22	L	community action to make environment better in contrast with Melbourne where people expect others to clean up rubbish in western society very classist and want to own items rather than collective ownership such as of a ride on mower	appears that the students are putting more effort into sustainability than people that Beaudi knows	trying to reduce plastic however it's also a privilege to be able to forgo, boycotting major supermarkets because of the multinationals they give a platform to. purchase directly from farmers at the stalls out the front. Horticulturalist by trade started own farm and want to be self sufficient. cucumbers, zucchini so, greenhouse.
2019 SLF	23	J	focused on women, basic labour. nothing will improve on planet if we don't address basic gender equalities	it's a beautiful photograph, there are people in the west who really care about the welfare of people over there... I do care, and I appreciate the seeing people here who are having hope to make those changes. hope is essential thing	I invest time and money, personal level. put my money support to girls empowerment in Bangladesh
2019 SLF	24	E	water isn't appreciated enough anywhere in the world... access to clean water for all of us including animals is so important... the work involved in cleaning it up is massive, it makes a difference. worked on a project in east India	I think it's important for everyone to access their environment. important that you can maintain and appreciate this environment.	reduce packaging, going off grid, community solar in Yarra ranges, Gippsland coast winds arms. start conversations
2019 SLF	25	D	the photo appealed to me, the green flowers,	I've learnt about how the trees service helps humans from emotional part... the poor people need the tree	make a written/drawing plan art and sustainability project, and share with friend for feedback
2019 SLF	26	H	photo and the story equally, we live in such a disposable society and a huge part of this is unnecessary. I care a lot about what I throw out	the photo stimulated something that I have been thinking about for many years, and we need reminders	to be more conscious about the choices I make, such as buying less packaging
2019 SLF	27	C	She's so young, gorgeous and graceful on that bike cart, she seems proud of yourself. I actually used to have old coconuts shells but didn't know what to do with them myself, so I'm inspired by what you want to do. Could be useful to make into plant pots!	I'd love to learn from you about what uses you have for the coconut husks, I'm so glad I'm not seeing any plastic, and that you're making use of what's around you, I'm inspired!	rice milk making at home continuing the less packaging journey
2019 SLF	28	E	very negative, feels the most feelings. all the waste in the river is bad, and the cycle of fish in the bad water and eating the plastics, and then we eat the fish. after reading the story, makes feel more positive	happy to see that people are taking care of the river	already does a lot, such as reduce, recycling and less meat - doing everything that wants to do. would like to install slat but lives in an apartment in Switzerland. one thing to change, would like to buy food with less plastic on the product. pledge is to produce less rubbish

Table 48 - Photo action interviews - SLF 2018

Participant #	oto_Le	Elaborate_on_Emotions_	Think	Act	Barriers	Support
1	C	Nice photo, she looks happy and competent (despite being young, taking initiative).		finding more uses for stuff...hard to recycle stuff	do so,e planning so that's alternatives are easy	doing a bit r search
2	B	ingenuity, haven't been to Bangladesh, but seen similar in other countries,	our family situation is different, so this is not us' but knowing about reducing fuel and what this means in high pop density country	thinking about reducing waste, fuel, fumes, reliance on fossil fuels; also thinking about O - again not likely to buy a bike, but could reduce trips to supermarket, although already make use of public transport; interested in all the photos	financially can't invest in some big items like an electric bike. apprehensive about safety on road, prefer driving car than motorbike. even if could afford it, barrier is safety. may be more perception than reality	bicycle Victoria maybe? find out more about safety aspects, looking at routes perhaps . look at info first, even if can't afford
3	J	one man taking some action, sometimes we think we can't make a difference, but we can, and we can influence others, it's symbolic and inspiring, perhaps do one thing each day. Felt connection to this man	I do my bit, some people say why bother recycle etc? but if we want a future, we need to	even just being here today, talking to groups, signing a petition, knowing it can make a change eg government, I was planning to do Instagram and encourage my friends to come to festival ; already do this, but reminded that I'm not alone	thinking about social media, barrier - don't want to push too far, being someone raving on, but actually most of my friends are like this anyway	not really, my husband and I are already proactive, would love the government to do more, were already members of a lot of groups and get acknowledgment, support and thanks
4	Q	sadness that even though I've been an environmentalist, I wish I had been more single minded in bringing everyone's awareness to it... I could have done more, even though, there are far beyond an individual, tension... greed is the basic problem, how can we tackle this for the human heart... spiritual teachers are the	what would have been more need to work on root causes (spiritual) than symptoms - political can enforce laws, but fundamentally a spiritualism revolution...	improving my ecofootprint, go can keep going like this, but we actually have to raise awareness of what's happening with the whole population... water storage, recycling, off the grid, reducing waste.... I protested against josh fyrbenurg... tree planting	I'm just one person, but I've got so much energy... feeling is for the younger generation	by being involved involved in these environmental groups...
5	C	young girl is empowered, taking control of her life, including recycling/re-using	makes me think about waste - how do I reduce my waste? she is inspiring me to think about what I can, and to make better	become more informed about Bangladesh - refugees, poverty - do some research, connect with Act International over Bangladesh issues	finding the aid agencies in BD - can do more though act for peace, visit Bangladesh	meeting up with people who been to Bangladesh
6	G	systemscolour, how butter fly sees the world, how we tease out deeper stories in the everyday around us, using the ideas of play to connect knowledge d	as salve	teach my kids and others about environmental ecological systems, seeing the stuff that's there all the time that we don't see, h-showing the hope	access to right info - connect with people who are active in these spaces, experiential	friends in aligned work areas at CoM
7	E	whenever I look at destruction, I feel angry sad, I love water. but I find the positive image feels hopeful... we can change.. is it enough?	how we connect with our natural environments, the different ways that we interact with them and how t hat can lead to different actions, what are global process behind the local issue, how these are often unjust, how commonplace this kind of photo is	hard to know... I've been having a lot of thoughts lately about my own connection with urban environments... taking care of the urban environment just like "wilderness". Specific: plant my herbs in my backyard/visit beautiful water spaces	garden - never been sole responsibility - chat housemate, river - write out a time in my diary	housemate, river - find a friend
8	I	sadness and disappointment from having to have manufacturing that pollutes, interest from how is that hidden, what else is hidden away , especially in first world country	we buy lots of thing from China, we are the part of the pollution problem, but don't suffer from it	thinking globally, seeing what is happening beyond our borders, the places where our waste etc might be going... to do research into this, to keep on reducing new purchases	lack of information - do specific research into it	local environmental groups sharing ideas with them
9	E	sad that we have to make it about us to make change, why can't it be for the intrinsic value compassionate, haven't had a choice in, realising my privilege, what I have... seeing that lack of education, and knowledge contributes to to that problems, seeing how far away they are from solution, what could people over there actually do? puts in perspective my little actions here - it's way to big for what I can do - overwhelming	if it's in Melbourne, I'd be disappointed, but because overseas, different overs actions have, feel compassionate, haven't had a choice in, realising my privilege, what I have... seeing that lack of education, and knowledge contributes to to that problems, seeing how far away they are from solution, what could people over there actually do? puts in perspective my little actions here - it's way to big for what I can do - overwhelming	visit places where people are already starting to look after the environment, the positive stories, validating their choices... to educate myself more about these global issues (eg Bangladesh)	not too expensive, but too many cheap options - so just don't go to some places like (KMART), follow the value aligned stuff on social media	minimising social media, helping friends , spending time with the right
10	C	she's so young, she is facing large problems	she is strong	reduce meat consumption, more mindful eating	reminding that it's animals	picture of animal on the product
11	O	it's a great story, she's using her trolley for shopping.	it shows people how this can be normal thing for someone to do, don't have to be Greenpeace , it's not because she couldn't afford a car, it's her choice. there's cars in the background, but she's actually doing it	everyday story. I don't own a car, I walk everywhere. photos from Bangladesh, might be hard to relate to, but the ones from Australia people here can relate to more... how you can relate to - in China it's too normal, people have adjusted to it. in between 2 for most Australians the have no idea how bad it can be (eg air pollution in China). Australia is a huge country, so it's inspiring that are doing stuff here because it's the right the thing!		
12	Q	that people care enough to stay to sai issue is inspiring	good to have more of these protests	attend a protest	you don't when the protests. are on - contact environmental organisations	friends
13	G	kid is full of pride. admiration - the simplicity of the straws as part of solution	participation, creativity imagination pride... combined imaginations is what we need	reinforces the values about the people's contribution to environmental solutions...political will change when people take change		
14	C	terrible situation about how she has too live, so much work that she does. I wish I could	how could we help her out?	could run a fundraiser at school	lack of knowledge - have some information at school	if someone could give a presentation that can effective,
15	H	simplicity of his life, and the act that his doing, and the joy that comes from the	as above. it speaks to the way I would like to be - healthy, simply	create with recycled materials, reuse more things that I have - bike inner tubes	not time - to make time!	friends - ally, rose a
16	B	her's trying very hard to limit his impact on planet, caring whole family, hnice green	I already use a bike for everyday use, similarity with him	probably not, already involved		
17	L	it's difficult to make tofu, it's inspiring me I had these ideas previously to do this on my own, and lean, so many things that I want to do, but seeing the photos inspires to do it,	idea about producing tofu, vegan meat at home,	making my own tofu, vegan wurst	hard to do alone - do it with friends. I won't eat the stuff until I make it myself	
18	P	communities building community, v important for climate action, the essential prerequisite, who's left out of the action/lunch? where does there stuff come from.	tension between this is great, they're doing what they can, no one can be perfect.... and in Australia we're very privileged, don't see our impact, who we include and exclude	reminds me of importance of community in my own activism, nurturing that, reminds me of critique them as well...who are my communities accessible. specific: going to a TAFE to talk SOS	prioritising this, maybe not going to a Uni campus	more people to take on organising work at Aden
19	B	family being together, looking content, animals look happy roaming free, take pride in their vehicle, did some creative stuff with it	people of any means can live more environmentally friendly, you can get by with a healthy family with very little, don't need much to be content	go on trips with family and enjoy it, rather than carrying massive shopping bags, reminder of simpler life... reduce buying stuff	conscious of what we already have, before buying new stuff, use things till they've gone, repairing	more communication with each other friends etc - skills sharing, tools, sharpies
20	C	inspiring to see young people it's progressive idea - without the hesitates that adult as , directness that youth have, I believe in the bicycle as a tool for social change, accessible all around the world... young but smart and creative. I hate waste and love creative solutions	nostalgic as it reminds me of being in Mexico and cracking open cocoanuts and know how a hard it is to do that! - so she's quite cool - she even has a mischievous look in her eyes, with her badass trike - what legend	I can get jaded, so this whole whole weekend is good to avoid it reminds of a job I didn't get - bikes not bombs in Boston - Canada bike mission was using bikes for social impact, while now it's more personal... the photo is a helpful reminder of the power of t bike..	time...	bike rave is good for inspiration me. - they donate bicycles for humanities, disruptive public spectacle, celebration
21	D	love, connecting emotions, reminds of your childhood, tree talking to me	kids are well connected, playing under the tree, tree provides shade and fruit - they are understand	planting trees back home in Somalia	Australia is home now, scared to go back, is this possible, how do you find the right community, how to pitch the	look for stakeholders
22	I	unsettling - usually the sky is clear s- smoke symbolises uncertainty, message resonates as most people think it's good now, but don't think about the future... a mask. the photo looks pretty gloomy	unsettling - it feels like the pollution is building. become more interested in enviro stuff recently, wouldn't have affected me as much before.... helps to already have enviro knowledge / interest before	learn more about sustainable energy, coal mining... research on net, connecting with groups	lack of knowledge/time/money... research	boyfriend/friends can support research

Participant #	oto_Le	Elaborate_on_Emotions_	Think	Act	Barriers	Support
23	B	I don't see happiness and joy in the faces, but I'm sure this man takes a lot of pride in having his family behind him	we all have similar needs - of transportation, similar values such as family and love, same needs, family motor bike or rich car	makes me want to document more - I have a project where I ask people about their life purpose and it makes me think about the same underlying themes that occur	consent and photos - there is a judgement that we are better than them, a sense of superiority that can arise from the ego, afraid the viewers were	friends and family, possibly get funding, artist communities, rich business people who have the funds
24	C	pride that such a young girl is taking initiative for ... hope for a positive action by a girl, so there's effect of a girl getting more education, she's going to be a the caregiver/actor/family	education has had a positive Effexor her already, roles models and mentoring has a great impact, strong message about education	how can we influence the poor countries as a rich country, to support initiatives already involved in education projection Sri Lanka. action: consider how much funding/impact of these goes girls (of the exiting programs), get the feedback from the girls.	community consultation has already been done, but it we need to consult grass roots level (rather than elders)..	people are already supporting it. communication - have to have a good strategy - reporting , well presented
25	C	seeing someone younger doing something that seems like a feat to do.	her sweetness and innocence, and sad ness that she needs to do this, natural container is a really interesting idea, remaining a new purpose	inspiration for being more conscience about waster, trailer bike is an idea	lane sizes wouldn't work with a trailer - don't have the same organic waste - natural container idea	Melb Uni could support/ Ceres / friends/ council
26	E	rubbish a huge threat, we've gotten have better ways of dealing with it, good to see on a local level this community has seen the problem and are dealing with it, doing	importance on a local level action, government won't lead.... local solutions will all add up for global solutions	bye y less plastic, no plastic bags, paper be conscious of throwing... always bring a plastic bag with me to pickup other people rubbish ... take a little bit more responsibility each of us	make sure I have at least 5 cloth bags in the car or backpack	work colleagues inspiration them
27	F	pleasure - reminds me of memories of playing in India with children. admiration comes from - the plague of crazy technology that is given to children to keep them busy... you must have it to be happy culture, it creates consumerist view of the world early on.... in contrast to kids in Philippines, Nepal etc - who are just playing with the simple things around them, playing together, community sport... in the west we have tendency to see people as victims/beneficiary - instead of what we can learn from them. admiration for their creativity in contrast to where this has been lost in the west, made do with what you jhjae, natural environment, ingenuity	hope-as we tend to see people as the victims/vulnerable - continues the deficit mentality. I instead what can they teach ist the teaching us about community, using what you have, self-sussicifecny , the hope doesn't come from us n the west, it comes forum them...	new parents - kids and scene time ... it reminds me of the importance of raising kids in a natural way (see above idea) , letting the kids lead the perspective , you don't need all the gadgets... actively looking to simply my life and the activities	FOMO is the barrier - recognising it first, as a condition of cultural upbringing, and my culture , - we never used to have 10 events all on at the same time, putting it in perspective, and asking the questions - do I actually have the energy to commit, is this really adding to my life in the valuable instant gratification - I have to do it NOW! cultivating contentment.	I'm grateful that I'm in an enabling environment
28	B	engaging, visually interesting, tells a story,	tells a story, the picture speaks as much as the words	no great change, don't want to do anything particularly different, get an electric vehicle	the technology isn't there yet, still not attractive as a consumer	technology - there is support on a policy level but the technology is
29	J	glad someone is cleaning up rubbish, sad that it needs to be done	pass	try to get people to pick it up, community groups which rubbish cleans	peoples general laziness, and emptying bins in public spaces	contact council
30	L	disappointment that it's made by factory, pride is what they're doing	they don't have to use big machines, just simple process, for local areas	food consumption is making a big impact... but food connects people... it can help people be more aware of environmental issues facing them - air , water, soil. I want to share difference between factory made and local made... thinking about food safety,fair share of food, how much we make. next one fortnight food swap		I set up a sharing food table in front of my house, some neighbours brought food to share, many people came, post in Facebook groups in point cook, has been good. Eco-action fun activities grade 4-6 last year...reusable bag with crayons
31	Q	no	I agree with it, I have experienced it, I believe it needs to be expanded, more people should join rallies as long as it's peaceful, people who are concerned with climate change should help each other and support each and encourage each other	it makes me want to continue doing this and encouraging others to get involved, post on Facebook,	a lot of people are self interested and people don't feel personally affected by climate change, time and money, exciting commitments, family,	darebin climate action now, and indirectly bell field community garden, (in Bellfield), climate for change, I would like to get more of my friends and family involved. one niece and one common get my facebook posts, my age group have had their family and lots of people have moved to county or interstate, this is old friends - getting to see them is hard and then they don't want to talk about
32	C	she knows what she actually do with the coconuts - I went to India, and saw all the coconut waste, so it's inspiring that she know what to do and is young	the fact she is able to attend to school in Bangladesh is inspiration	I've become interested in eco living in last 6 months, I want to build tiny house, zero waste... so it inspires me to use less...specifically to learn about compost and use it more	surrounding myself with like-minded people who do it, personal doubt - can research yourself and feel confident	
33	E	The sanitation and garbage - makes her feel disgust that people are expected to live in these conditions. governments are allowing this to happen	people want to live cleaner environments and are willing to participate and engage in the clean up	pick up rubbish - be active about litter, clean up in public environments and along rivers. can do this while walking	don't have the equipment/ broken glass/ if you don't have gloves	people in local government - providing bins in common use areas, or providing the gloves and
34	R	personal and physical is very powerful affirming thing	action based is important, easy to share with people, which can inspire others to the same, be the change...	reinforces the actions that I'm already doing - the smile on her faces tells me that it's a good thing to do... bring to the everyday. sustainable activism, nourishing yourself while being good for planet, rather than I've taking taking sabbatical from being active with 350...		
35	C	admire because she's so young and taking big actions, her capacity, she's really trying, admire her creativity, doesn't know where she goingne necessarily, doesn't have a full plan, acting anyway	having the courage to start being action, before you know... she seems like a leader in her community, isn't waiting for someone to her what to do, she's taking the initiative...I'd like to be like that	we started mushroom farm mini (box), eats coffee grounds, but live above bakery with coffe, collect grounds to mushroom	limited space in apartment - but could advertised to others who have more space, encourage them too follow their example ... demanding	
36	G	when we design a garden we design for other beings (like everything itself), so I like that the butterfly is like seeing as a mother being. stepping into the experience of another being (butterfly)	Brian Cox documentary animal senses. eg catfish feels all through its skin... when we disturb animals, we disturb ways of seeing, and the environmental needs that they have (eg butterflies might need green etc ) coeval tuition	sensory gardens I'm interested in for my landscaping business... tactile, smells, colour. research a specific insect/bird about their sensory requirement - Facebook post/blog post	actually it's quite easy	amplify the idea through my business
37	J	seashephard beach cleanup 224kg of waste picked up - so much... as you start to pick it up, you start to see it everywhere... as its invisible before, he's just doing, he's become aware like I've had - the anger - being enraged as - prodigy	being inspired by people who are doing this... we should all be a little bit more like this... taking responsibility	cleanup, but also to take action to stop that waste being there in the first place..reduce my waste. buying plastic free stuff - reuse containers and bags,making specific time to do it	busy schedule, get t o the bulk food store before it closes, potentially blocking in sat to do shopping	friends - not a drudgery
38	E	waste is my passion area, I get dissapoint to see people mindlessly throw litter, minimising resources	what can I do, what's the behaviour carnage , waste is longer term behavioural, takes longer... part of a bigger picture, how to connect the waste to their own story, psychology	research appropriate behaviour change strategies, research for behaviour change course, social change experiment - on the train just pick up rubbish when	past barrier - feeling embarrassed to be seen to pick up rubbish/ not having bag - so being prepared with bag	I've built personal support over a term, previously emotional blocks to it...friend to document video share
39	C	it's a girl, you usually see this stuff with boys, I'm a woman so I identify with her, I love coconuts, I dry them up myself, and burn them myself, and use the ash in the garden, so I relate to her... she's using a push bike, no pollution	why is she doing this?	I'm already doing! if re-using, affirming what I'm already		
40	E	happens in over populated area. needs to be address at root care and looking for solutions provide basic services	comes from Philippines story strikes home and rehabilitation of water at home	support mission to poor back at home in Philippines / financial support to indigenous groups and BoysTown / couples for Christ building relationships for better parenting	local causes are tax deductible. over seas contributions are not	connected to orgs. in Philippines support schools world vision, urban poor support groups
41	C	this girl has courage, mix emotions because they don't have same chances as us, we are born in rich areas where looks good on the outside but inside its not but theirs doesn't even look good on the outside, so much trash there, here we would do stuff about the trash but they can't, it's poor, countries exploited by our country's materialism. force of inequality. she starts on the bottom, I start... she is doing something about it, making changes, taking action for a better world.	it's a simple example of small actions that can have a big impact. I could have an impact too. we can all do something. I have choice, she doesn't and she is doing hard work.	recycle more, in Australia it's hard. have an electric vehicle, solar panels. real impact would have to have an impact on and inspire others. living by example.	when not a priority, affecting directly, hard to do. need to make a priority, talk about it, have a reminder .	my partner, she can remind me
42	N	more the story than the image itself - it's a great idea ... small accessible action, sense of community ... the image makes it more accessible to people, not your typical greenie... maybe action can inspire neighbours	there are little things that everyone can do...lots of people have good intentions but don't do anything...there a spectrum of activism, little things can make a difference ... privilege associated with being environmental conscious..more accessible	I'm moving soon to a place where I could implement this action, reusing plastic bags ... I can specific	no car - could borrow one, hesitation of how I would be perceived by neighbours... waiting a little time to sus out, having conversations with neighbours	neighbours

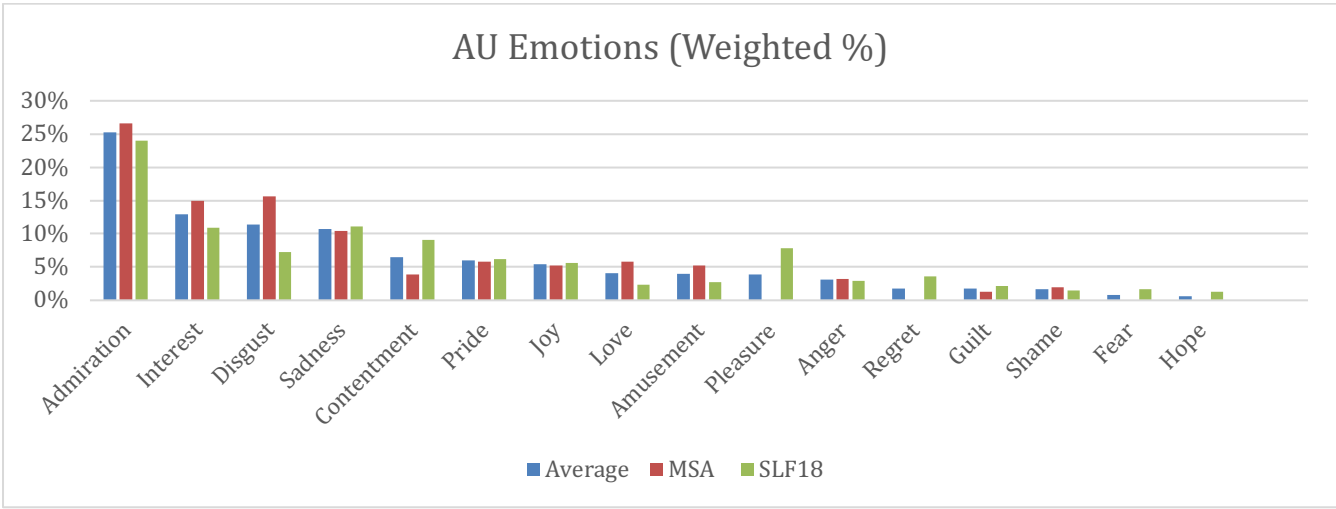


Figure 216 - Interviews Collective Emotions - Australia MSA/SLF 2018

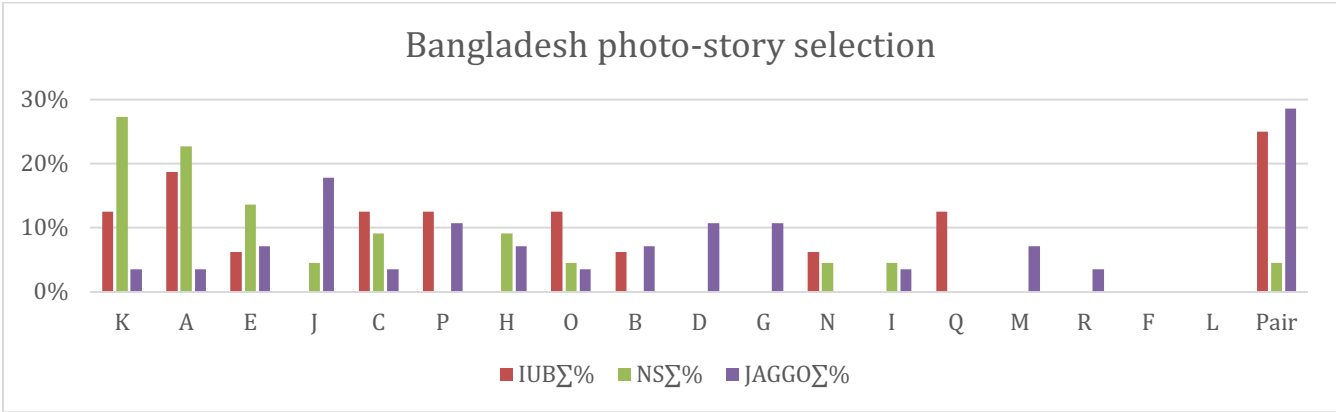


Figure 217 - Bangladesh combined photo-story selection

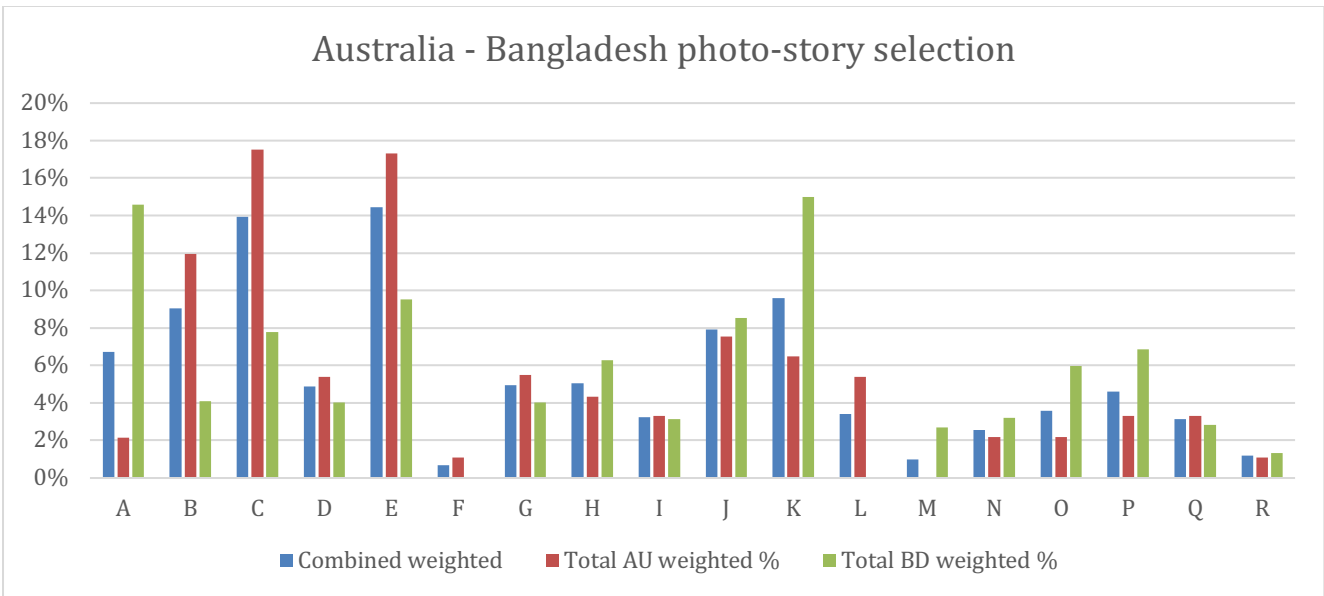


Figure 218- Photo-story selection by site

BD	AU
Interest	Interest
Admiration	Admiration
Amusement	Amusement
Anger	Anger
Compassion	
Contempt	
Contentment	Contentment
Disappointment	
Disgust	Disgust
Fear	Fear
Guilt	Guilt
Hate	Hope
Joy	Joy
Love	Love
Pleasure	Pleasure
Pride	Pride
Regret	Regret
Relief	
Sadness	Sadness
Shame	Shame

Figure 219 - Bangladesh to Australia motion simplification

	Bangladesh	Australia	Combination weighted
No.	53	91	144
BD	40%	55%	50%
CN	37%	33%	34%
AU	23%	12%	16%
	100%	100%	100%

Figure 220 - Comparison site selection - (which sites choose which photographs)

Describe Your Environmental Action	Unplanned Influences	Future Environmental Actions
To buy plants, indigenous and local providence, and give them to people. To raise the money through busking.	Other climate awareness activities have become more prominent such as assisting my cousin, once removed to advertise her conversation facilitation.	Yes, see above. Plus I've started my own indigenous plant patch on the metro creek and Carolyn and I will be handing out microlena stipoides, weeping grass, in Northcote soon.
Everytime I have to purchase something. New or used, plastic packaging is n°1 criterial! This leads me to consume less and better. I only bought one haloumi plastic packaging but reused it 8 times as a lunchbox after.	It reinforced my commitment and I look at the photo occasionally as a witness.	I have to make the step to share my experience and engagement but still didn't make it...
My plan was to support the education of girls in the majority world. In some ways I have done a bit by donating money to a group supporting the education of children and at risk families in Nepal who were greatly impacted by the earthquakes in 2015. The provision of feminine hygiene products is a stated aim of the group. The organisation is We All Rotate <a href="http://www.weallrotate.com">www.weallrotate.com</a> . Otherwise I often raise the issue of the importance of educating girls as absolutely necessary in the fight against poverty and in the interests of girls having choices regarding reproduction. I can do more and will put some more thought into this.	I think quite simply my awareness about this issue and also the people of Bangladesh has been increased.	Not really. At the moment I am volunteering with a Melbourne based organisation supporting and advocating for homeless and at risk of homelessness (HAAG) and will support the Greens during the election. It is likely that I will continue to support We All Rotate.
I go to work by bicycle		
Not buying new clothes for a month .I didn't buy any clothes and I donated some clothes .	Read the news about the shortage of water in Victoria. Plan to save the water .	Save the water , minimize the usage .

Figure 221 - SLF 2019 Follow-up evaluation results






















Photo	Total BD w	IUBΣ%	NSΣ%	JAGGOΣ%
K 	15%	 13%	 27%	4%
A 	15%	 19%	 23%	4%
E 	10%	6%	14%	7%
J 	9%	0%	5%	 18%
C 	8%	 13%	 9%	4%
P 	7%	 13%	0%	 11%
H 	6%	0%	9%	7%
O 	6%	 13%	 5%	4%
B	4%	6%	0%	7%
D	4%	0%	0%	11%
G	4%	0%	0%	 11%
N	3%	6%	5%	0%
I	3%	0%	5%	 4%
Q	3%	13%	0%	0%
M	3%	0%	0%	7%
R	1%	0%	0%	4%
F	0%	0%	0%	0%
L	0%	0%	0%	0%
Pair	18%	25%	5%	29%
Total	100%	100%	100%	100%

Figure 222 - Bangladesh photo-selection by workshop

## 12.5 Appendix E5 - Interview guidelines

### SLF 2018 Interview Guidelines and Questions

#### General Advice

- *Incentives: Contribute to research about environmental action, connect with positive environmental stories from abroad,*
- *Explain Feel, Think, Act*
- *Don't worry, there is no right or wrong answer – it is your **individual** responses which matters*
- *Be specific and detailed as possible*
- *You may pick one single favourite photo-story, or choose a pair of photo-stories (eg that **connect** or **contrast** together)*

#### 1. Full Name

#### 2. Selected photo-story(s) alphabetic letter(s), these are marked in RED

#### 3. How does this photo-story(s) make you FEEL?

Mark the **emotion(s)** on the wheel on the opposite page.

You may also use words, sentences or drawings to further explain these emotions below if you wish.

#### 4. What do you THINK about this photo-story(s)?

What ideas or opinions do you have about this photo-story?

How does it relate to your life?

#### 5. How does this photo-story(s) make you want to ACT?

After considering THINKING and FEELING, what ACTIONS would you like to take?

What actions may improve the situation? Don't worry about the feasibility of the action.

These actions could be in different contexts, for example:

- Your own life
- Your friends or family
- Your wider community – such as school/university/workplace

#### 6. Barriers - What are the barriers to this action and how might you overcome them?

#### 7. Support - Is there anyone who could help you?

#### 8. Timing - When might you be able to *attempt* your action(s)?

- Next week
- Next month
- Next 3 months
- Other

#### 9. Research Participation - Consent to use your responses in the research?

Yes - public: name will be displayed with your responses

Yes - private: name will not be displayed with your responses

No - will not form part of the research

#### 10. Gender & Age

#### 11. Your best email

#### 12. Your involvement

- Join contact list
- Submitting your own photo-story?
- Volunteer/Intern
- Collaborate

## **SLF 2019 Photo Interview Guidelines and Questions**

### **General Advice**

- *Incentives: Contribute to research about environmental action, connect with positive environmental stories from abroad,*
- *Don't worry, there is no right or wrong answer – it is your **individual** responses which matters*
- *Be specific and detailed as possible*

#### **1. Full Name**

#### **2. Selected photo-story(s) alphabetic letter(s), these are marked in RED**

#### **3. Why did you pick this one?**

What ideas or opinions do you have about this photo-story?

#### **4. What message would you like to send to the creator (and friends) of the photo-story?**

- Any message at all (if they think of one), and
- Message of hope regarding environment action here in your own live and community*

#### **5. What specific environmental actions would best support your message of hope?**

Having been inspired by SLF, the conversations etc. Don't worry about the feasibility of the action.

Can you pick one action from each different contexts?:

- Your own life
- Your friends or family
- Your wider community – such as school/university/workplace

#### **6. Barriers** - What are the barriers to the biggest action and how might you overcome them?

#### **7. Support** - Is there anyone who could help you with your biggest action?

#### **8. Timing** - When might you be able to *attempt* your biggest action(s)?

- Next fortnight
- Next month
- Next 3 months
- Other

#### **9. Take interviewee's photo with their favourite photo, and whiteboard of actions**

Optional. Photo doesn't need to be publicly displayed (see next question). Invite them to think about their actions as you take the photo.

#### **10. Research Participation** - Consent to use your responses in the research?

Yes - public: name + photo will be displayed with your interview responses

Yes - private: name + photo will not be displayed with your interview responses

No - will not form part of the research

#### **11. Gender & Age**

#### **12. Your best email** (so we can send you photograph+survey)

#### **13. Your involvement**

- Join contact list
- Submitting your own photo-story?
- Volunteer/Intern
- Collaborate

#### **14. Thank person, checkover responses, email photograph using your phone**

## 12.6 Appendix E6 - Group Action Projects

Workshop No	Date	Mentors present	brief description approx 100 words
RB 1	8/8/18	Touhid Pranto Ahnaf Shanto Siam Lenin Taslima Lily	The first workshop held in Rayer Bazar was mostly about about getting to know each other and getting introduced to the topic of the workshop. The participants filled up the respond sheet on photo-stories from Australia. Further discussions on the topic lead to brainstorming about positive environmental actions. Later they were briefed about the basics of photography and on how to use the cameras provided. Once this was done they went out in groups along with the mentors to take photos. The day ended with them submitting the photos of their choice on which they will later work.
RB 2	11/8/18	Touhid Pranto Shishir Siam Lenin Taslima Lily	On the second day of the workshop, we begin with reviewing the previous workshop. The priority on this day is to create the photo-stories. The students brainstorm and then create three photo-stories out of their pictures. Meanwhile one by one the students go out of the room and record a video of themselves speaking about their photo-stories and also reading out part of their letters. By the end of the day, they were told about the project they will be working on in the future and to think of a topic.
RB 3	14/8/18	Touhid Pranto Siam Lenin Taslima Lily	On the third day of workshop, after reviewing the previous activities the students complete their photo-stories (if any final touch is required). Then the activity of the day is pointing out their most and least favorite places on a map of their locality. Once completed, they share their work with the rest of the class and shares the reason behind their statements. Later, students select 3 best topics for their projects and display them via sticky notes in front of the class. Group of 5 students in each group were created based on the level of similarities of their topics. The students then discuss and plan their project among themselves along with their assigned mentors and made a draft of it. Later, they were given homework of taking photos to create a cultural photo-story through which they will represent their culture (lifestyle, home, friends and family, what they do for entertainment etc.) especially of Eid as they were going on Eid vacation soon before the next workshop.
RB 4	5/9/18	Touhid Pranto Siam Lenin Taslima Lily	On the fourth day of Workshop, the students return from Eid vacation. The previous activities are reviewed and they share their experiences. They present in front of the class and submit a map which represents how they want to see their local area in the future (the changes) after they are given some time to make last minute edits. They also share their experience about taking the pictures for the cultural photo-story. Then they start to discuss their project with their group and make a detailed plan which includes cost estimation as well. At the end, they select the pictures for the cultural photo-stories.
RB 5	13/9/18	Touhid Pranto Siam Lenin Taslima Lily	The fifth day is about reviewing the project plans one last time before going out on the field, discussing obstacles, if any, relieving the fund for the projects and then presenting the main plan of execution. They were supposed to complete the cultural photo-story on this day but the activities above took so much time that it had to be postponed.
RB 6	2/2/19	Siam Lenin Taslima Lily	Back from the field, the students were very excited to share their experiences on the field. It was an amazing experience witnessing this. One student from each group share their work in detail. After this they propose plan plans about how they want the exhibition to be. Later they complete creating the cultural photo-story.
KW 1		Tamzed and another person from Korail staff member	Michael and Agam conducted this workshop.
KW 2	12/8/18	Touhid Shishir Ahnaf	The aim of this workshop was to create the photo-stories and collect messages from the students for Australia. The workshop began with reviewing the previous day's activities, especially for students who came for the first time today. Later the students were guided to writing down the photo-stories step by step from selecting the pictures, brainstorming the captions to reorganising then finally writing it down on the final paper with the pictures.
KW 3	12/9/18	Touhid Pranto Shishir	On this day the students are required to do the map activity and choose a topic for the group project exactly like it was done in the Rayer Bazar Branch. As there was a huge time gap between the last workshop and this one, we focused on reviewing the previous activities. It was nice to see the students as excited as before and they did not forget anything at all. The aims were successfully achieved. The students formed groups of 5. The mentors were assigned for each groups. They went home with the homework of taking pictures for the cultural photo-story. (There were no festivals this time so they will focus on the lifestyles)
KW 4	4/2/19	Touhid Pranto Shishir	On the fourth day of the workshop we collect the pictures taken by the students for the cultural photo-story. Most of them completed the map homework but few lost their maps or wanted make changes so we said we will get them fresh copies on the next day. Some students shared their thoughts on their work on the map, about the changes they would like to see in their locality and their most and least favourite parts of the area. After this they worked on planning for their group project, going through details along with their mentors.
KW 5	6/2/19	Touhid Pranto Shishir	On this day The students were provided with their photos for the cultural photo-story. They created their stories. Later they worked on the project plannings and gave us the cost estimation based on which the fund was provided to them. People (1/2 of them) who wanted to work further on the cultural photo-story took it home. Fresh copies
KW 6	6/3/19	Pranto Shishir	On the sixth day, the students came back completing the projects. Each student presented their experience of the field, what worked and what did not and how excited they were. They planned about how the exhibition can be designed. They need assistance of the mentors the most as they are young compared to the Rayer Bazar students. All the papers related to the workshop were collected such as the maps, remaining photo-stories etc.

Figure 223 - Group action projects workshop descriptions

School	Group No.	Project Name	Students involved (names or how many involved)	Brief Project Description (100 words)	Project outputs (specifically what was achieved - 100 words)
Rayer Bazaar	1	Dustbin (Educational)	<b>Mentors-</b> Lenin and Pranto Haque <b>Students</b> Shimla Akter Shahnaj, Rumki Akter, Md. Kawsar, Latifa Akter Rimi	This group wrote down informations about how to use dustbins and waste separation (plastic, organic waste and hazardous waste) on chart papers and went to 3/4 schools and did a presentation for the students there. Their objective was to spread awareness about waste management and especially encourage young people to use dustbins. After the presentations they have also left the three kind of dustbins they spoke about to each school to encourage the young children to use them and inspire them to do so everywhere else.	- names of schools? - how students attended presentations? - how many dustbins given-16 - how were the presentations received- the presentations were received positively. The student and teachers of the schools were really appreciative about it and proud of young people working on spreading such information.
Rayer Bazaar	2	Tree plantation and awareness	<b>Mentors-</b> Siam Hossain, Touhidul Islam <b>Students-</b> Rabeya Akter, Sakib Hasan, Salman Rahman, Shujon Hossain, Sonali Hossain, Uzma Akter Laboni	The group of students bought plants from a nursery and distributed them to households of the locality. Before handing over the plants they have spoken to the household members present about the importance of tree plantation in a form of informal presentation. Their main motive was to inspire people to plant more trees, make gardens and encourage indoor plantation as well. Providing them with a plant would work as good rapport building between the students and the household members and also encourage them to add more plants to their collection.	- names of school- JAAGO Foundation School - how many households engaged- 5 houses (total 60 rooms) and 20 shops - how many plants given - 100 plants, 5 chart papers - how did the householders react to the students? People appreciated the initiative taken by the students very much and showed interest and understanding towards the cause. They also have said they will keep on getting more plants for themselves.
Rayer Bazaar	3	Dustbin (Physical)	<b>Mentors-</b> Lily Hossain, Taslima Akter <b>Student-</b> Jhuma Akter Lamiya Jannatul Ferdous, Hridoy Monju Akondo, Neela	This group went to other schools and with the permission of the authorities made a group of 50 other school students and one particular day they went out on the streets of their localities and started cleaning the streets. This brought attention towards them and slowly people passing by or from the area gathered around them and that's what they intended to happen. To the people gathering around they spoke about how and why everybody should keep the roads clean. And they finished their work by keeping dustbins at several corners of the roads and in front of shops where there are more chances of litter.	- estimated number of people engaged with the students? - estimated amount of rubbish cleaned up (volume or weight) - how many dustbins distributed? - how did the public react to the students- This group got public attention on a larger scale as they worked on the streets. Even though 1/2 people showed annoyance towards school students cleaning the road, majority praised them so much that it did not matter at all. It was mostly because people of such young age came out on streets showing the elders how to keep the environment clean. People appreciated their work very very much! One example- A policeman was passing by during their work. Seeing them, he stopped and got off his bike and saluted them. It almost brought me in tears while listening to them describing the moment.
Korail	1	Spread awareness about limited resources of gas, electricity and water.	<b>Mentors-</b> Pranto Haque <b>Students-</b> Mahmuda Akter Maria, Md. Rifat Uddin, Sifat Khan, Meem Akter, Tamanna Akter	the group of students made chart papers with the information they were to talk about and made leaflets to distribute. their target area was market places where there were shops, restaurants etc. they approached such shops and spoke to the owners as well as people around and the customers about how we should not waste gas, electricity and water. They also distributed leaflets and left decorated papers with slogans about awareness on this topic in the shops and visible areas.	- how many papers given out- 100 Appx - scan/upload copy of paper?-no - how many people engaged with?-30appx - how did the public react to the students- People appreciate young people spreading such knowledge on environment. Their initiative was received positively.
Korail	2	awareness video (tree plantation)	<b>Mentor-</b> Touhidul Islam <b>Students-</b> MD. Hanzala Islam, MD Razon Miah, Yusuf Ali, MD. shahin Hossain, MD. Hanif Miah	This group made a short video on the importance of tree plantation and why we should reduce deforestation. <a href="#">the link will be provided here.</a>	
Korail	3	Dustbin distribution and road clean and awareness	<b>Mentor-</b> Ashiqul Shahid Shishir <b>Student-</b> Shila Hawlader, Shumi Akter, Shamin Akter, Lamia Akter, Yeasmin	This group worked on awaring people about using dustbin. They cleaned few roads near their school and home and after doing so they left a dustbin in each corner of the roads and also distributed leaflets with slogans about keeping the roads clean and using the dustbins.	Dustbin-10 Broom-5 Dustpan - 5 Bin bag-5 Duct tape, gloves and papers.

Figure 224 - Group action projects evaluation

Date	Time	Event	Location
5 August	13:00	Planning meeting	ICCCAD office/call
6 August	13:00	Organiser Briefing	ICCCAD office
7 August	13:00	Mentor Briefing	Jaago Korail
7 August	15:00	Primary W1	Jaago Korail
8 August	15:00	Secondary W1	Jaago Rayer Bazaar
9 August			
10 August			
11 August	15:00	Secondary W2	Jaago Rayer Bazaar
12 August	15:00	Primary W2	Jaago Korail
13 August			
14 August	13:00	Planning meeting	
14 August	15:00	Secondary W3	Jaago Rayer Bazaar
15 August		Planning	
16 August		ICCCAD Planning meeting	

Figure 225 - Workshop schedule

## 12.7 Appendix E7 - Portraits of change video documentation

*'Jaggo Foundation School'* - compiled by Ismar Uzeirovic



Jaggo Foundation School

<https://www.youtube.com/watch?v=vtR-ofb7jV4>

*'Climate Action Photo Pen-pals'* - compiled by Agam and Param Mahal



Climate Action Photo Pen-pals

More from Vimeo Staff #  
Autoplay next video

<https://vimeo.com/276564074>

*'Photovoice in Bangladesh'* - compiled by Emily Crawford



Photo voice in Bangladesh

483 views · 26 Dec 2017

Like Dislike Comment Share Save

<https://www.youtube.com/watch?v=mej5B6Zhfs8>

## 12.8 Appendix E8 - Portraits of change Vision and Values

### Portraits of change values and visions

#### VISION (draft)

Empathy driving environmental action  
Photography inspiring change

Everyone is a storyteller

#### MISSION (draft)

To promote environmental action through photo-storytelling

To empower urban youth through mutual connection between Bangladesh, China, and Australia

To support community environmental action through disseminating effective applied research

#### STRATEGIES

Environmental photo-story creation – youth are trained to use photo-storytelling to show local environmental actions

Environmental photo-story dissemination – physical and online exhibitions of the photo-stories

Cross-cultural engagement – sharing photo-stories and experiences between different global sites

#### Coms Objectives

To promote environmental action through photo-storytelling

To foster connection between Bangladesh, China, and Australia youth

Encourage dialogue around environmental issues

To support community environmental action through disseminating effective applied research

#### Values (v1)

We believe in the power of positive storytelling

We work to cultivate global perspectives on local environmental issues

We connect people to amplify their impact

We empower people and communities.

We actively develop and support dialogue with communities in China, Bangladesh and Australia.

We work with partners that have compatibility with CRME values

We have an openness to different cultures and religions, and what we can learn from them

We strive to be environmentally sustainable in all our projects and processes.

We guided by the principle of non-violence towards all beings

We advocate equality and respect regardless of gender, race, sexuality, political affiliation, caste and disability.

We value creativity, innovation, and experimentation in the way we work

We value honesty and transparency in our daily work

We value accurate and ongoing reporting, recording and review of our activities, so that we can learn from our experiences. We report on our activities, finances and our goals with the groups that we work with.

## Appendix F - Open Photovoice recipe

The following two page document is simple instructions intended for organisations or researchers who are interested in running open photovoice.

### Recipe for Open Photovoice

#### What is it?

Open photovoice is a collection of participatory storytelling methods to empower people to share their stories using photography, and invite audiences to engage with them. Photo-stories are combinations of photographs and writing that work together to tell stories about their creator's world and their relationship to the storytelling theme - such as identity, environment, health etc.

#### Who can use it?

Open photovoice is an excellent complement to add value to community organisations or NGOs existing community engagement programs. The method can also be easily used by individual researcher/ practitioners.

#### What is needed?

While any cameras can be used, technology is kept at minimum to reduce access barriers - participants' own smartphones can be used to take and share photographs with others via closed social media groups.

A simple project plan can guide the engagement, adapting the stages below.

#### Guidelines

The below stages can be viewed as part of an action-research cycle which can be repeated to build on the knowledge and relationships developed. Encourage relevant involvement from participants or relevant partners in each stage.

Best wishes for running your open photovoice!

For inquiries:

Michael Chew - [entropygravity@gmail.com](mailto:entropygravity@gmail.com)

## Open Photovoice Recipe

### 1. Confirm theme and aims

### 2. Confirm resourcing and partner arrangements

Think ahead to what partners can be engaged to recruit participants and/or share the photo-stories. Crowdfunding or unpaid internships can build capacity if resources are limited.

### 3. Facilitate photo-story creation

Photo-stories can be created in several ways:

#### Workshops Series

The simplest workshops are a pair:

*First workshop* - participants brainstorm and develop ideas around the theme. They experiment with photographing these ideas during or between the workshops, and can share them via social media.

*Second workshop* - participants select their favourite photos and add writing to express their deeper ideas.

Additional workshops can be run to further develop these photo-stories or connect with other participants through responding to their photo-stories.

#### Online Submission

If time, resources or social distancing constraints limit running workshops, photo-stories can be collected online through a photo-competition or simple online submission promoted through social media.

### 4. Audience engagement and photo-story sharing

Interactivity is an important part of open photovoice - sharing the photo-stories is a powerful way of stimulating engagement around their theme and involving new participants.

*Exhibitions* - can bring people together and provide a platform for discussion and expression

*Interviews* - the photo-stories can be used as prompts for facilitating further discussion with the community

*Online* - web and social media combined with voting

Design ways of encouraging audience engagement, such as people's choice voting or online surveys where people can share their responses or making pledges to take further action.

### 5. Evaluation and knowledge dissemination

Gather and share learnings from the inquiry.

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