



Climate Resilient Urbanisation - Asia Pacific Region (CRU-AP) Mission statement

Context: Urbanisation and global environmental change are two of the most significant challenges facing cities and societies in the Global South. Climate change will aggravate the significant risks already posed by natural hazards, impacting towns and cities that are also rapidly urbanising. These challenges are particularly acute in developing countries in the Asia Pacific region. In the Pacific, geographical isolation places further stress on the resilience of communities in Small Island States (SIDS). Rapid urban growth often overwhelms local Government response, in some cases leading to unplanned informal settlements and significant growth in the numbers of 'urban poor', a group considered the most vulnerable to the impacts of climate change.



Prof McEvoy discussing community issues in Honiara, SI.



Informal settlement housing in 'at risk' area of Honiara.

An inter-disciplinary team: Responding to this critical urban resilience agenda in the Global South, the Centre for Urban Research houses CRU-AP; a group of researchers drawn from across different schools and disciplines to collaborate on projects that offer scientific, technical, and capacity strengthening solutions to some of the most critical challenges facing fast-growing towns and cities in the Asia Pacific region. This geographic focus closely complements the Climate Change Transformations group, which predominantly focuses on the Australian context, allowing for a sharing of people and knowledge between the two climate adaptation groups.

Research topics: CRU-AP specialises in participatory action research and brings together expertise across a range of urban climate resilience issues. Key research topics (often cross-cutting) include:

- Climate vulnerability assessment and climate action planning;
- Community-led adaptation;
- Disaster planning (including evacuation centres);
- Engineering solutions (environmental and civil disciplines);
- WASH;
- Climate resilient housing and critical infrastructure;
- Nature-based solutions;
- Urban and landscape planning and design;
- Food security;
- Gender, youth and disabled;
- Intersectionality;
- Land tenure and responsible land administration;
- Institutions / governance;
- Communication of climate risks.

Partnerships: Due to the nature and complexity of urban resilience challenges, members of the research team have considerable experience of collaborating with other scientific bodies as well as a wide range of end user groups including UN agencies, multi-level Government bodies, industry sectors, local universities, international NGOs, and civil society organisations. Examples of organisations include:

- UN-Habitat (Nairobi and the Asia Pacific regional office)
- UN Global Land Tool Network
- UN 10YFP Sustainable Building & Construction Programme
- UN ESCAP
- DFAT
- MFAT
- ACFID Urban Community of Practice
- Commonwealth Local Government Forum – Pacific (CLGF)
- Home in Place
- SPREP
- Local, provincial, and national Government (Vanuatu and Solomon Islands)
- ICLEI
- World Vision
- Live and Learn
- Solomon Islands National University

Geographical scope: Members of the group have project experience, and networks, in a wide range of countries across the Asia Pacific region: Solomon Islands, Vanuatu, Fiji, PNG, Vietnam, Bangladesh, Thailand, Nepal, India, Singapore, Malaysia, Indonesia, Cambodia, Lao, Maldives, and the Philippines.

Selected projects:

1. Climate Resilient Honiara, phase 2: funded by UNFCCC Adaptation Fund and administered by UN-Habitat (2022-2023). Projects include:

- Updated vulnerability assessment;
- Climate adaptation pathways (5 informal settlements);
- Local disaster planning;
- Governance: cross-border partnerships;
- Gender and communication of risks;
- Gender, urban gardens, and local food security;
- Land tenure assessments;
- Nature-based solutions: urban greening master plan;
- Nature-based solutions: review of local planning scheme;
- Nature-based solutions: community level landscape designs;
- Nature-based solutions: flood and landslide mitigation;
- Engineering design of drainage upgrades (4 settlements);
- Water tanks and sanitation;
- Review of a construction management diploma (for Solomon Islands National University).

The project mainly works with 5 urban communities (shown numbered 1-5 in the map below) but also undertakes a limited scope of work in the Koa Hill settlement.



Distribution of case study settlements



Community workshop: Ontong Java settlement

2. Inclusive and Disaster Resilient Shelter Guide: Urban Informal Settlements, Honiara, Solomon Islands: funded by the AHP Disaster Ready programme and administered by Habitat for Humanity (2021 – 22)

[Inclusive and Disaster Resilient Shelter Guide: Urban Informal Settlements, Honiara, Solomon Islands](#)

This Shelter Guide has been developed as part of a regional suite of guides covering Fiji, Vanuatu, and Solomon Islands. Whilst this Guide for Solomon Islands complements the others, it also adds critical insights by focusing on the particular needs of those living in urban informal settlements and the realities of residents who often act as first responders. The main sections of the Guide are structured to the three key stages of the Disaster Risk Management cycle: Preparedness, Response, and (longer-term) Recovery.



At risk housing: Kukum Fishing Village settlement



Shelter needs workshop with women, youth and people with disabilities

3. *Unlocking the potential of urban gardens as a mechanism for sustainable, climate resilient, livelihoods in Greater Honiara: funded by SPC (Pacific Community) (2021 - 22)*

The project has five major aims:

Understanding local vulnerability / resilience attributes:

1. To better understand urban communities' reliance on different types of garden (home / sup sup, and bush) and to map their locations and related factors such as travel distance, access, land tenure etc.
2. To identify the different crops being grown and / or harvested, and determine whether these are for subsistence or cash purposes.
3. To identify perceived climate and non-climate threats that are impacting, or likely to impact, local food security (and by extension, the specific vulnerabilities of women to climate change and other urban stressors).

Promoting ecosystem-based adaptation:

4. To provide local training on urban farming best practice for women from case study local communities, based on needs identified in the workshops.
5. To carry out an integrated assessment of geospatial data and findings from the workshops to develop policy recommendations for the Ministry of Lands, Housing and Survey and Honiara City Council for protecting productive urban open spaces and enhancing local food security.



Bush garden: Jabros (drone imagery)



Urban organic farming

4. Implementation of nature-based solutions in an informal settlement (Koa Hill, Honiara): funded by the Swedish International Development Cooperation Agency (2022).

The project has three main components: 1) community and stakeholder workshops; 2) the implementation of three NbS pilots; and 3) dissemination of the NbS pilots' achievements and their benefits.

- 1) Community workshops: The workshops will be used to raise awareness of the benefits of NbS, as well as identifying and codesigning locally appropriate NbS actions that address riverbank protection, flood resilient community open space, and either landslide mitigation or water security / quality.
- 2) NbS pilots: Once the NbS actions have been identified and agreed, the local project team (PACSOL consultancy and Kastom Gaden Association) will source the necessary materials and manage the implementation of three pilots, with remote scientific support provided by RMIT.
- 3) Dissemination: A final dissemination workshop will be held at SINU (Solomon Islands National University) to showcase the achievements of the pilots, as well as promoting the societal and environmental benefits of NbS. Dissemination will also take place through SINU and other local networks (e.g. Honiara Youth Council and the Solomon Island National Women's Council), as well as to an international audience through RMIT and personal networks.



Community consultations carried out by the local project team

5. Climate Resilient Honiara, phase 1: funded by UNFCCC Adaptation Fund and administered by UN-Habitat (2019 – 2022). Projects include:

- Climate action planning;
- Community profiles;
- Local engineering solutions;
- Informal settlements: climate resilient community development plans (integrating climate vulnerability, geospatial, and engineering outputs);
- Non-written communication of climate risks;
- Urban organic farming;
- Design and location of new evacuation centres;
- Nature-based solutions;
- Planning for Climate Change (training)
- Governance: cross-border partnerships;
- Responsible land administration in peri-urban areas;
- Gender, urban farms, and local food security.

Reports:

[Wind Valley Community Profile](#)

[Community profiling methodology](#)

[Enumerator training notes: community profiling](#)

[Community engineering actions](#)

[Local validation of community engineering actions](#)

[Kukum Fishing Village - climate resilient community development plan](#)

[Ontong Java - climate resilient community development plan](#)

[Aekafo-Feraladoa Planning Area - climate resilient community development plan](#)

[Wind Valley - climate resilient community development plan](#)

[Jabros - climate resilient community development plan](#)

[Nature-based solutions](#)

[Design and location of new evacuation centres](#)

[Locally Appropriate Peri-Urban Land Administration Options](#)



Field visit for local engineering assessments

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Coordination: The CRU-AP research group is coordinated by Professor Darryn McEvoy, a Research Professor in Urban Resilience and Climate Change Adaptation in the School of Engineering. The group is open to all RMIT researchers with an interest in climate resilient urbanisation in the Global South, as well as collaborative partnerships outside RMIT University.

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