

Climate Change Adaptation Research Grants Program

- Emergency Management Projects

Project title:

Understanding the Pacific's adaptive capacity to emergencies in the context of climate change.

Principal investigators:

Dr Juliet Willetts

Lead organisation:

University of Technology, Sydney

Objectives:

1. Provide recommendations to policy makers and practitioners in the Australian and Pacific disaster and emergency response sectors on current adaptive capacity of the Pacific Island Countries (PICs) to climate related disasters (e.g. tropical cyclones, floods, droughts, storm surge), and what resources are likely to be needed in the coming years to enhance this capacity; focusing on the immediate humanitarian needs post-disaster, including health care; food and nutrition; water and sanitation and psychosocial needs.
2. To understand the Australian emergency services and related organisations' capacity and obligations to assist PICs in times of disaster and whether there is adequate capacity to service future needs due to a changing climate, allowing for better planning and thus more effective response in times of disaster.

Project design and methods:

Our project will take a collaborative approach and involve those whom the research seeks to influence, both through the PRG and through other stakeholder involvement in the research, from the Australian and Pacific perspectives. The project design draws upon an innovative mixed methods approach, combining a predominantly qualitative study (with some quantitative elements) with Action Research for an in-depth situation analysis, as well as the future impacts and adaptive capacity of our Pacific neighbours. Through our wide reaching networks, and collaborations with experts, we will conduct interviews and workshops both in Australia and in 4 Pacific Island countries (which will be decided upon in discussion with the PRG) to examine the emergency and disaster systems already in place. 4 PICs are suggested to cover a range of geographical and cultural (e.g. Polynesian, Melanesian and Micronesian) contexts, and also countries that may have experienced various types of disasters in the recent past (e.g. tropical cyclone, flood and drought). Our aim is to include countries with a range of different policy responses to disasters and climate change, e.g. those with existing Joint National Action Plans (JNAPs) for disaster management and climate change (e.g. Tonga, Cook Islands, Marshall Islands) and National Adaptation Programmes of Action (NAPAs - e.g. Samoa, Tuvalu, Kiribati) and those without. The 4 PICs selected for involvement in the research will also have had a recent disaster, as understanding their disaster response systems is paramount. Some analysis of research findings will occur in-country, allowing an ethical approach to ensure outsiders don't misinterpret findings, and also to obtain effective engagement and buy-in around findings from local stakeholders.

We will also undertake a case by case review of changes that have been actioned (e.g. institutional and governance arrangements, human resources, cultural issues, knowledge etc.) within the 4 PICs to gain an understanding of their adaptive capacity following emergency and disaster situations. The results will be thematically analysed and recommendations made to enhance adaptive capacity that are relevant to the Australian and PIC context. The research aims to engage with decision makers and leaders who can not only effect change, but have an understanding of the contextual issues pertaining to their country and PIC context.

A cross-sectoral Project Reference Group (PRG) will be established with participants representing key organisations in Pacific emergency response (e.g. AusAID Emergency Response Co-ordinator, Pacific Applied Geoscience and Technology Division (SOPAC), Asia Pacific Emergency Disaster Nursing Network (APEDNN), Pacific Human Resources for Health Alliance (PHRHA), World Health

Organization Western Pacific Region (WHO WPRO), South Pacific Chief Nursing and Midwifery Officer's Alliance (SPCNMOA). The PRG will communicate regularly using an online conferencing tool, Elluminate, which runs on low bandwidth, thus an effective option for colleagues in the Pacific. This group will steer the project direction, provide input into interview design and ensure outcomes are cross-sectoral and useful to a broad range of end users.

The Australian component will involve a literature review of existing relevant research and interviews/workshops with high level professionals in the emergency and response sector to ascertain the current challenges and constraints as well as their views on future implications of emergency/ disasters in the Pacific and the impact on Australian resources. The Pacific component will include a convenience sample of high level professionals in the four proposed thematic areas (healthcare, food and nutrition, water and sanitation and psychosocial needs). UTS Ethics Approval will be sought for all relevant elements of the research.

By using 4 countries as case studies more detailed information can be gathered regarding: disaster response procedures, impacts of climate driven disasters on populations, adaptations they have made and lessons learned from past events.

Action Research has become increasingly popular with practice-based professions such as education, midwifery and nursing, and is gaining recognition in other professional fields. Action Research has also become recognised as a form of participatory or collaborative research that is aligned with the foundations of Critical Social Theory. It is a process whereby the researchers work explicitly with, and for, people rather than undertaking research on them. It seeks to engage practitioners collaboratively in taking action to improve their situation. The strengths of Action Research are that it enables participants to focus on generating solutions to practical problems. It also enables the participants to engage with research and 'development' or 'implementation' activities. As a result, it is particularly suited to identifying problems in practice and helping develop potential solutions, which will be vital in this proposed research. Action Research will also be useful to assist the team to work in the workshops being conducted, both interactively and reflectively, on both a personal and at an organisational level.

Qualitative methods of research are growing in popularity due to the ability to take a closer look at social construction and dynamics which is relevant to this research proposal. Indeed, literature espousing and promoting qualitative methods of research are rapidly increasing. This proposal will employ a thematic networks approach to analysis which draws on core features that are common to many approaches in qualitative analysis. Thematic networks aim to explore the understanding of an issue or the signification of an idea, rather than to reconcile conflicting definitions of the problem. In this case we have the problem, which is a future drain on Australian service resources due to climate change emergency and disasters in the Pacific region. As we need to explore possible solutions to this problem, gaining directed information from experts in this area, analysing their ideas into themes, and devising appropriate recommendations stemming from these themes is the aim.

Finally, our approach will build upon and align with existing Pacific Island focused initiatives Australia is involved in, for example the CSIRO Pacific Climate Change Science Program (PCCSP) and the Pacific Adaptation Strategy Assistance Program, both funded through the International Climate Change Adaptation Initiative. The PCCSP has recently released new climate change projections for the Pacific, which will form important resources for our literature reviews. With a technical focus, the PCCSP have acknowledged their scope is limited and there is a disconnect between their scientific outputs and actual adaptation initiatives. Our research will aim to begin to bridge this gap, drawing upon outputs of the PCCSP and linking it to the information needs of Australian emergency response organisations and those responding to disasters in PICs. We will also ensure any publications from our research are developed with CSIRO in mind.