Stacey Atkinson University of New South Wales

CLIMATE CHANGE ADAPTATION FOR THE SOLOMON ISLANDS

As a Small Island Developing State (SIDS) and Least Developed Country (LDC), the Solomon Islands is one of the most vulnerable to the effects of climate change, with socio-economic challenges and a susceptibility to extreme climate further exacerbating these effects. These challenges also present constraints to the successful implementation of adaptation options. Low technical, institutional and human capacities, as well as a lack of financial resources, limit the number of strategies available for implementation.

This thesis explores the link between trigger points that impel communities to take action and adaptation strategies appropriate for the Solomon Islands. Assessment of the region's vulnerability to climate change, based on current projections, identifies these triggers; predominantly sea level rise with subsequent impacts on agriculture, food security and fresh water resources. Site visits and surveys conducted in the Solomon Islands determine a level of variability in community perceptions of climate change, which differ with geographic location, demographic circumstances and level of government presence.

MAJOR FINDINGS AND OUTCOMES:

The most significant finding is that, at a local level, the trigger points investigated for the purpose of this study have already been reached. Survey results from four community sites provided anecdotal evidence of climate change and communities demonstrated natural resilience in attempting to adapt to changing circumstances. Some especially isolated communities have never heard the term "climate change" but are very aware that their climate is changing.

In terms of trigger points, the results suggest that these thresholds have already been reached on both a community and ecological level. Sea level rise appears to be the most serious threat to the Solomon Islands with most of its social and economic activities centered on the coast.

There was a moderate level of variability among survey responses depending on geographical location, demographic circumstances and the level of government presence. There also appeared to be a discord between community needs and government action which has resulted in the community's lack of faith in government ability.

A pressing issue recognised by the community is the government's need to source land for the relocation of people displaced by sea level rise, overpopulation and other factors. Traditional land ownership however, continues to create tensions and hinder the adaptive capacity of the Solomon Islands on a national level.

Although communities have demonstrated resilience to impacts it was varied and seemed to suggest that the more isolated communities were able to tap into this natural or traditional capacity better than those more exposed to government and NGO presence.

An evaluation of the site visits and current literature, allowed a brief assessment of the adaptive capacity of the Solomon Islands at both community and broader government levels. Appropriate adaptation strategies were suggested in line with a "no regrets" policy of incorporating measures to address socio-economic issues while recognising risks associated with future climate change.

In observing these trigger points reached at a local level, this study suggests that the next stage is provincial and national government trigger points which would require much more planned adaptation strategies.

PROJECT SIGNIFICANCE TO ADAPTING AND PROTECTING AUSTRALIA'S SETTLEMENTS AND INFRASTRUCTURE:

This study seeks to aid decision makers at all levels to identify key vulnerabilities to climate change, assess appropriate adaptation strategies and explore community perceptions, which will influence implementation of these strategies. The adaptation strategies identified and assessed for the Solomon Islands will, ideally, be applicable to other similar SIDS in the Pacific region.

Surveys were conducted at four locations in the Solomon Islands to investigate community perspectives and responses to climate change. The results demonstrate that encouraging community involvement in the decision making process is important as it is communities themselves who will need to physically adapt to the changes in climate. There exists a clear link between the level of community involvement and the long term sustainability of projects implemented.

The Solomon Islands context provided a clear example of how regions challenged by complex geographic, socio-economic and political issues may address climate change adaptation through a "no regrets" adaptation policy, where socio-economic issues are addressed with reference to current and future impacts of climate change. In addressing these concerns, governments are then able to increase the resilience and adaptive capacity of the people to better respond to future climate change impacts.

The urgent need for adaptation in the Solomon Islands also provides a different perspective on climate change compared with its close Australian neighbours. The need for immediate action in the Solomon Islands stresses the importance of planning adaptation to protect settlements and infrastructure before the impacts of climate change are exacerbated.

FURTHER RESEARCH SUGGESTIONS:

A more comprehensive study of the Solomon Islands would allow a broader number and range of communities to be surveyed, increasing the validity and depth of survey results. Fewer restrictions with regard to time and accessibility would allow further exploration of the more isolated communities and their perceived natural adaptive capacity.

A shift in the focus of this thesis study may consider the trigger points for the Solomon Islands provincial and national governments to take the next level of action. In doing so, further research into the appropriate adaptation strategies would provide results to facilitate government planning to address climate change impacts at a broader, national level.

Similar studies in the Pacific region would aid in supporting decision makers to identify the key vulnerabilities to climate change and assess appropriate adaptation strategies for SIDS.

Grant Holder: Stacey Atkinson, School of Civil and Environmental Engineering, University of New South Wales
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