

Conduct research and develop ideas that could help your country better prepare for and manage the effects of natural disasters

Titled: A Proposal for Better Disaster Risk Management in Samoa.

Category: 1 Stating the challenges faced in Samoa

Introduction:

This paper is based on opinion, personal experiences and scholarly writings to support a proposal for Better Disaster Risk Management in Samoa. To allow the reader to make an informed decision this paper will address some key areas such as:

1. What is Disaster Risk Management and why is it important?
2. Identification of disaster risks in Samoa over the last 20 years
3. What Disaster Risk Management Plans does Samoa have in place?
4. Categorizing the affected areas of Samoa
5. Managing the effects of natural disasters
6. Review of the approach to disaster risk management in Samoa
7. Importance of Apia to the Samoan Economy
8. How can Pacific Catastrophe Risk Insurance Company (PCRIC) help Samoa?

In conclusion, this paper will detail the areas where Samoa can better manage the effects of /natural disasters through a good Disaster Risk Management Strategy for a more robust Samoa.

1. What is Disaster Risk Management and why is it important?

Disaster Risk Management refers to the policies and strategies that are implemented in a community to reduce the impacts of natural disasters as they occur. To provide a clear picture and to ensure the strategic management and implementation of disaster risk projects, a good understanding of the different mitigating categories is needed. The **first category** involves policies and strategies that will assist Samoa to prepare for natural disasters (prior or preventive actions to mitigate the impacts of natural disasters). The

second category relates to policies and strategies that will assist Samoa to recover from a natural disaster occurs (post natural disaster actions).

The differentiation in categories is important to note because the **first category** will allow Samoa to be proactive by identifying and understanding the issues putting it at risk of natural disasters. This approach can help mitigate or prevent the occurrence of a natural disaster. The **second category** utilizes lessons learned from previous natural disasters in developing strategies and plans to mitigate the impacts of such disasters in the future.

A disaster risk management strategy based on a good understanding of the aforementioned two categories allows governments such as Samoa to be better prepared, and make informed decisions when establishing a framework and mechanisms to mitigate the impacts of natural disasters, and allow for quick recovery time.

2. Identification of Disaster risks in Samoa over the last 20 years.

In order for Samoa to be better prepared to establish and implement effective disaster risk management policies and strategies, it is important to understand the historical natural disaster trends of the last 20 years. Although it can be difficult to predict the type and intensity of natural disasters over time, identifying consistent weather patterns and frequency of natural disaster occurrences can help Samoa better prepare for mitigation and recovery.

Natural Disaster In Samoa	Result of Natural	
	Disaster	Date occurred
Cyclone Heta	Flooding	December-03
Earthquake	Tsunami	September-09
Cyclone Evan	Flooding	December-12
Cyclone Gita	Flooding	February-18
Heavy Rain	Flooding	December-20
Heavy Rain	Flooding	January-21

Figure: 1¹

From Table 1, it is clear that in the last twenty years Samoa was hit mostly by hurricanes and major flooding caused by heavy rain. This is not to undermine the impact of the earthquake which generated the tsunami of 2009 which claimed many lives. The Table also shows that in the last 20 years, Samoa cyclones occurred mainly between November and April². Whether this is attributed to rising sea levels and climate change is not the purpose of this paper, but this vital information can help inform Samoa's effort to establish and implement sound policies and strategies for disaster risk management.

3. What Disaster Risk Management Plans does Samoa have in place?

The Samoan Government has in place the "Disaster and Emergency Management Act 2007". The objectives of the Act are:

- *"(a) to establish an efficient structure for the management of disasters and emergencies by promoting cooperation amongst agencies with a role in disaster management, and enhancing their capacities to maintain the provision of essential services during periods of disaster and emergency"*
- *"to require the preparation and implementation of a national disaster management plan consisting of the response agency plans prepared by the response agencies and other groups and institutions in accordance with the requirements of this Act".³*

Under this Act the Samoan Government has formulated the "National Disaster Management Plan 2017-2020" prepared under section 9 of the Disaster and Emergency Management Act 2007⁴

The objectives of the "National Disaster Management Plan are:

¹ United Nations Office for the Coordination of Humanitarian Affairs

² As above n1

³ Disaster and Emergency Management Act 2007

⁴ National Disaster Management Plan 2017-2020

- *Public leadership, coordination, development and implementation activities for improved disaster risk management;*
- *Mainstreaming of Disaster Risk Management across all sectors including economic, social and infrastructure sectors and from national level to the villages;*
- *Promoting sustainability by raising public awareness of disaster risk management, including a focus on vulnerable population*

The government document states the National Disaster Management plan is in two parts as follows:

- **Part 1** “provides and all hazard framework for disaster risk management in Samoa”.
- **Part 2** “Disaster Response Operational Procedures that guide stakeholders”.

The objectives and guiding principles of the National Disaster Risk Management Plan emphasize a focus on coordination of Government sectors, Government resources and private sectors to address Disaster Risk Management. Plus, there is also community educational programs to inform the community of Climate Change Adaptation and “plans in order to address the underlying causes of people’s vulnerabilities and contribute to the reduction of people’s risks to disasters”⁵.

The question that needs to be asked is whether the National Disaster Risk Management Plan is addressing the underlying issues and providing an effective disaster risk management strategy that prioritises the main principles of the First and Second mitigating Categories for natural disaster management mentioned elsewhere in this paper.

In answering the question, the National Disaster Risk Management Plan provides a very good structure for coordinating the relevant government sectors, resources and private sectors to prepare for a natural disaster. The community programs are likely to be

⁵ As above n4

effective in terms of educating the community about climate change adaptation and disaster risk resilience, thus, preparing them for natural disasters. But does this strategy answer the question and address disaster risk management? We will look into this further in the next section.

4. Categorizing the affected areas of Samoa

In order to propose a sound disaster risk management strategy in Samoa or any other country, a good understanding of the underlying issues is necessary. In this essay ‘Towards Total Risk Management Approach’ Guzman⁶ highlights the exaggerated and differing definitions of ‘disaster’ by donor organisations:

“Notwithstanding the considerable disparity in definitions, they convey the essence of disaster as a serious condition beyond the normal capacity of the community to cope, thereby justifying external assistance”⁷.

This disparity is likely due to the different objectives of donors and organizations involved. Therefore, the definition does not provide direction for countries to implement effective strategies. However, for the purpose of this paper de Guzman’s definition will be taken into consideration and applied to Samoa to understand “disaster as a serious condition beyond the **normal capacity of the community to cope**”. In Samoa, different sections of the community were affected as a result of natural disasters. For the purpose of this paper and to aid with strategizing, we will categorize the different sectors of the community in terms of ‘those most affected’ and ‘those least affected’ in relation to the data provided in Table 1. The definitions and categorizing will help us identify the underlying issues and strategize for better disaster risk management.

The majority of natural disasters involved cyclones and heavy rains which caused heavy flooding, and high winds which destroyed communities, homes and crops. Flooding on the fringes of the islands where majority of villages are situated is less intensive and

6

⁷ Towards Total Disaster Risk Management Approach

mitigated by locality—the open sea into which excess water flows. Areas such as these are categorized as ‘least affected’.

The more densely populated areas of Apia are more prone to flooding, as evident through footages and descriptions disseminated through the media, including Radio New Zealand. Areas such as these will be categorized as the ‘highly affected areas’.

How is this information relevant? The community on the fringe of the island benefits from its locality and the fact they are a lot less densely populated with a minimal level of deforestation. This is why it is categorized as the ‘least affected area’. The highly affected area of Apia is due to its dense population and a high level of deforestation needed to accommodate the growing population due to the urbanization drift.

This categorizing of the affected areas provides a clearer picture of the underlying issues that assist or mitigate natural disasters. Importantly, it provides information about where the disaster risk management plan policies should be focused, taking into account the principles of the **First and Second categories, thus** enabling Samoa’s preparedness for natural disasters.

Category 2: Statement of the proposed solution – provide an explanation of how it is innovative or adds something new to the existing solutions proposed in DRM materials that cited in your paper.

5. Managing the effects of natural disasters

Now that we have identified the underlying issues and categorized the affected areas. How do we manage the effects? In order to answer this question, it is important to reflect de Guzman’s observation that:

“disasters are the collapse (i.e. failure or inadequacy) of cultural protection, a result of human activities and not of natural or supernatural forces; therefore, they are essentially human-made. This assertion assumes that human societies have the capacity to recognize the risks and factors that could lead or cause disasters and the appropriate interventions to control or manage them”⁸.

The categorization of the affected areas indicates that Apia area is highly affected by flooding due to deforestation of the hills above Apia which resulted in the unstemmed flow of water from heavy rains. As de Guzman suggests, the Apia natural disaster issues are not the result of “natural or supernatural forces” but are “essentially human-made”. To manage the effects of the flooding the Samoan Government has “the capacity to recognize the risks and factors that could lead or cause and the appropriate interventions to control or manage them”. This would require the government to spearhead reforestation efforts in the heavily deforested hills of Apia to curb flooding in the town area in the future. Also better town planning is needed to accommodate the ever growing population, and a good starting point can be building upward as there is seemingly now more space than land to accommodate the growing masses. Implementing policies and procedures for further development of land can also assist Samoa’s preparations for natural disasters.

⁸ Above n6

In relation to the least affected areas, it is felt that the current disaster management plan sufficiently addresses the risks associated with these communities utilizing community educational programs to inform the community of Climate Change Adaptation and plans in order to address the underlying causes of natural disasters.

Managing the effects as mentioned would address the concerns raised in the **First** category of our disaster risk management by using lessons and experiences learnt from previous natural disasters to inform efforts against future disasters.

Another important fact to note is that Apia is vulnerable from a location point of view. There are 3 main rivers flowing into Apia – Vaisigano, Vailima and Vaivase rivers. Apia is also quite low which makes it difficult for flood or stagnant, accumulated water to flow out from it.

Category: 3 Supporting information and analysis of how your solution can help address the problem?**6. Review of the approach to disaster risk management in Samoa**

In reviewing the approach to disaster risk management, the opinion held is that the government should approach varying issues with an open mind, or use a best practice approach. In noting Samoa National Disaster Risk Management Plan, Samoa has taken a “holistic approach to disaster risk Management - aimed at reducing the impacts of and increasing Samoa’s resilience to natural and human induced hazards”⁹. There are varying degrees of approaches such as developmental relief approach, vulnerability reduction approach and such which Samoa could utilize. However, it is also felt that even though a holistic approach is a well-founded approach in terms of covering all sectors of the community, there also needs to be a concerted, proportionate effort to address the underlying issues which highlighted in this paper rather than relying on the current strategy of community education. The concerted effort would entail:

- Firm policies and strategies for town planning addressing Apia’s flooding propensity.
- Reforestation policies to reduce the effects of flooding in the Apia area.
- strategic financial budgeting for disaster risk preparedness and management

7. Importance of Apia to the Samoan Economy?

The reason why Apia is so important to the Samoan economy is that it is the main port and hub for services and trading in Samoa. It is for this reason that Apia is densely populated and is the destination for urban drifters. Apia township provides employment, is the central point for business services and trading.

In relation to disaster risk management, the Apia township being the economic lifeline of the country is reason enough to prioritise it in anti-natural disaster strategies, and in

⁹ Above n4

recovery strategies from natural disasters. Doing so, can ensure the economy can continue with minimal impact.

8. How can Pacific Catastrophe Risk Insurance Company (PCRIC) help Samoa?

As highlighted in the PCRIC webinar, Pacific Island Countries (PICs) are highly exposed to adverse natural events, including tropical cyclones, earthquakes, volcanic eruptions, and tsunamis, which can result in disasters affecting the entire economic, human, and physical environment.

The focus for Samoa at the aftermath of a natural disaster is to ensure a speedy recovery from it. This means ensuring that infrastructural damage is repaired immediately and the economic lifeline of the country is allowed to operate as soon as possible. This requires Samoa to ensure there is funding in place to meet the need for a speedy post-disaster recovery.

Conclusion:

In conclusion, this paper provides some constructive criticism of the current disaster risk management plan employed by Samoa. It has suggested where Samoa could provide a more strategic and proportionate Disaster Risk Management approach to ensure there is a resilient Samoa in the aftermath of a natural disaster. The information provided in this paper provides some insight as to what natural disasters have affected Samoa in the last 20 years which is valuable information for a company like PCRIC to understand and provide a tailored insurance product/solution to meet Samoa insurance needs. More importantly this information provides a discussion point to allow Samoa and all Pacific Countries to be comfortable that an organization like PCRIC can meet the immediate cash injection prompted by a natural disaster.