Chapter 8

Capacity Building at the Community Level in the Face of Disaster Risk Reduction in Mauritius

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Summary

Over the past decade, more than 1.5 billion people have been affected by disasters that have cost at least US$1.3 trillion. Climate change, weak governance, and an increasing concentration of people and assets in areas exposed to natural hazards are driving disaster risk upwards, especially in poor and fragile countries (UNDP 2018).

This poses a critical threat to achieving the Sustainable Development Goals (SDGs). There have been the UN Development Programme's (UNDP) disaster risk reduction efforts, which aim to risk-inform development in line with the goals and targets of the SDGS, and the Sendai Framework for Disaster Risk Reduction. UNDP works with country partners to strengthen national and subnational policy, legal and institutional systems; foster greater coherence of disaster risk reduction and climate adaptation efforts; provide access to risk information and early warning systems; and strengthen preparedness and response measures. Together, these efforts strengthen the resilience of countries and urban and rural communities.

Disasters are common in small island developing states (SIDS) and Mauritius, an island in the Indian Ocean, is no exception to such problems. During the summer season, there are cyclones and floods affecting the country that cause casualties – namely refugees leaving their destroyed homes looking for security in shelters. There is already a committee working on disaster risk at the national level and monitoring activities related to disaster risk reduction. This is a centralised task, where central government monitors the risk. Given that risks are impending during the summer season; it would be useful to develop capacity at the community level.

The islands of Mauritius and Rodrigues are generally prone to a wide range of natural hazards including cyclones, flash floods, torrential rains, landslides, drought, pests, epidemics, tsunamis and tidal waves. Light earth tremors have been felt in Rodrigues, while coastal erosion arising from climate change can also be added to this list. The underlying challenge is that of building capacities, bridges and networks, in promoting problem-solving actions that mobilise key actors and constituencies, that generate effective momentum and impact, and that are culturally sensitive and scientifically sound (UNESCO 2017).

Local communities comprise citizens who face disasters but might not have the ability to tackle the problems effectively on their own. This chapter highlights that there must be a means for developing capacity in selected communities that are more vulnerable to risks than others. Such capacity can be built from members of society who have the desire to serve the nation voluntarily in times of risk and who might co-ordinate during such difficult times to assist local authorities in bringing about improvements; these aspects are of utmost importance in such demanding times.

Disaster risk reduction is a major consideration for all small island developing states (SIDS) that have become vulnerable because of climate change. This is in part because there are more calamities and natural disasters taking place and at a higher magnitude in different parts of the world and these do affect small nations. The island of Mauritius, situated in the South-West of the Indian Ocean, is no exception. As such, a Disaster Risk Reduction (DRR) Management Committee was set up in 2016 with a view to better anticipate and manage risks. At the time of writing, the outcomes from the committee had been positive, with few casualties following its setting up. Those events that did result in casualties were closely linked with flooding disasters in places like Fond du Sac and the northern part of the island in 2018 and 2019.

The threats to the coastline and tourist industry are just some of the risks Mauritius faces as a result of rising temperatures. According to the latest World Risk Report (World Risk Report, 2017) Mauritius is classified as the country with the thirteenth highest disaster risk in the world and is the seventh most exposed to natural hazards.

The island is situated in the Indian Ocean's tropical cyclone belt and may suffer more intense cyclones as temperatures rise (Republic of Mauritius 2016). Mauritius is also braced for more frequent and severe flash flooding. Flash floods in 2013 in Port Louis, the capital, resulted in 11 people losing their lives. However, problems might arise from the fact that the DRR Committee is centralised with a top-down approach and information is channelled to the public via radio or television. There appears to be no direct public involvement when citizens are faced with calamities. Cyclone refugees just rush to the community health centres to benefit from first-hand assistance. During their stay in such centres, it is also difficult to manage the situation due to a lack of qualified personnel.

8.1 Introduction

This chapter considers the need for capacity building at the community level, namely in villages and localities affected by calamities. Some places are affected by flooding while others can be struck by cyclones and related hazards. If capacity is built in the form of resource persons who can be involved in DRR during such times, there might be better co-ordination within the community and problems could be more effectively addressed.

To build up capacity requires first, a top-down involvement whereby the government can call for people from the communities to act as volunteers in the process. There are already *'forces vives'* ('life blood') in such communities, comprising people willing to give help in times of disaster. It is important here to build capacity from citizens

coming from a wide sphere of social life. For instance, teachers from primary schools could be effective as educators for children in times of disasters; social workers might be helpful in the cleaning and rehabilitation process; while women from various fields could be suited to nursing and counselling and psychologists could help deal with people affected by traumatic events. Added to these possibilities, there could be graduates who are either employed or unemployed, who might become involved by participating in DRR in communities. For example, developing countries such as India, Mozambique and Guatemala have adopted such a bottom-up approach to disaster risk reduction by engaging communities, particularly youth, in such endeavours and the results have proved to be conclusive through a higher level of awareness and commitment from local communities and a desire to better address natural calamities (UN Volunteers 2017).

There are already volunteers in Mauritius, helping out in challenging situations. The development of such capacity entails a focus on people who have the correct profile or background. Citizens participating in DRR should be people who have shown a keen social interest and who wish to volunteer. They must be to some extent already engaged in such activities or show a desire to be involved in them. This also builds a sense of patriotism among the community while enhancing active participation in DRR. Such capacity building must involve individuals who are able to network with the public in times of calamities, liaise with the Disaster Risk Reduction Committee in Mauritius, volunteers and local teams to provide assistance and moral support to refugees in times of the disaster.

This proposal could be of particular importance in refugee centres during cyclones or bad weather conditions, where refugees experience various hardships. The development of capacity at the local level can partly address such problems. During flooding, centralised organisations might take time to tackle immediate issues, but if capacity has been developed locally through volunteers, first-hand solutions might be found.

However, there are some immediate constraints that must be considered. First, volunteers linked with capacity building need to have the time available to participate in DRR. Second, having recognised the competence and devotion of such people, there might be a mechanism to reward them financially and ensure their availability at other times of disaster. Next, there might be the need to recognise the contribution of all members involved to ensure that there will be more opportunities to develop and sustain such capacity in the future.

Ultimately, capacity building at the community level in selected vulnerable locations in Mauritius could be useful. When problems crop up and the authorities are affected by insurmountable calls and demands for relief from the population, capacity built at the community level can address immediate problems quickly and also assist central government in reducing risks effectively.

8.2 Methodology

This chapter describes past events to explain the need to develop capacity within communities. It analyses selected situations that resulted in casualties in Mauritius and

looks at how the problem was tackled. Based on observations and findings reported in the media, it develops a concept of capacity building in relation to disaster events.

Developing capacity must involve people from different spheres of life. Educators will be helpful in supporting vulnerable people and children; psychologists or mentors could be useful in the same endeavour, while the police can ensure security; and women could be effective in counselling other women in such difficult times. At the reconstruction level, capacity might be built from volunteers coming from non-governmental organisations (NGOs) who have shown evidence of good social involvement.

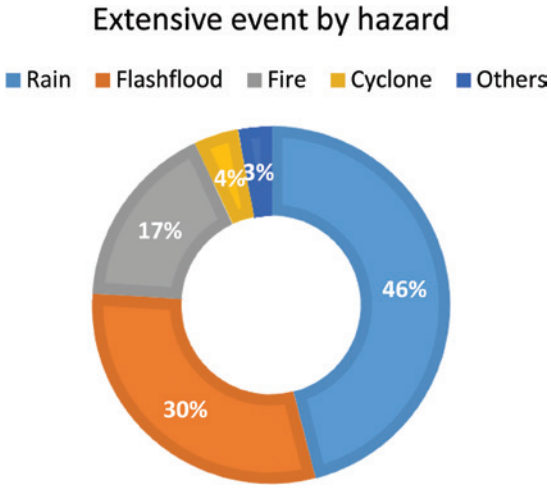
8.3 Disasters in Mauritius today

It is essential at this point to highlight the different disasters that have occurred in Mauritius in a recent past and how these featured in terms of their relative impact. Out of 1,104 extensive disasters between 2015 and 2018, rain was the most prevalent (46%), followed by flash floods (30%), fire (17%) and cyclones (4%) (see Figure 8.1). Being a tropical country, rain affects the country during the summer season – with high volumes of rainfall and torrential downpours having impacts on work, people and health. Flash floods have been recurrent recently, while fire hazards affecting sugar plantations, agriculture and residential areas also account for extensive hazard events (*Financial Times* 2017).

8.3.1 Economic loss due to extensive events (physical and agriculture)

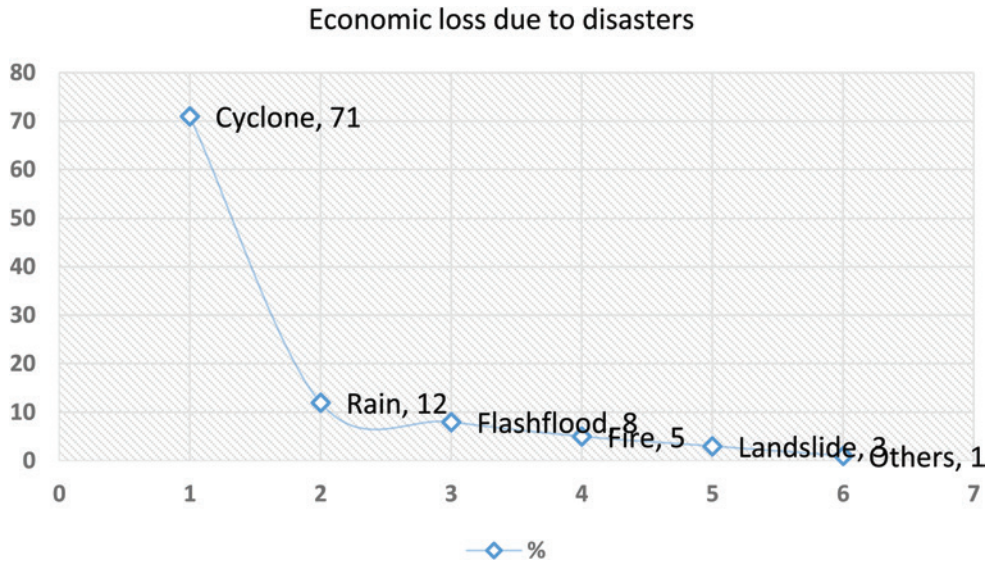
It is important to assess the economic losses that have affected the nation in a recent past as a result of hazard events/calamities. Cyclones have caused an immense economic burden to the country, due to damage caused to agriculture in physical

Figure 8.1 Extensive hazard events



Source: UNISDR (2015).

Figure 8.2 Economic loss due to disasters



Source: UNISDR (2015).

terms. Rain and flash floods have also contributed to heavy economic losses, with these commonly affecting economic growth and making the nation economically vulnerable to disasters over the years (UNISDR 2015).

Figure 8.2 shows the percentage of economic loss due to disasters on the y-axis with indexed values stating the loss magnitude and the ordered classification of disasters on the x-axis.

8.3.2 Illustrations of recent disasters in Mauritius

To illustrate the disasters affecting the country, two case studies are included here, these being the most important ones in recent years. They show how the country became suddenly vulnerable to such events and how these disasters impacted Mauritius, both economically and socially. The first case depicts Black Saturday, 30 March 2013, a flash flood that killed 11 people. The second one relates to the passage of an intense tropical cyclone, Berguitta, on 17 January 2018 and its aftermath.

Black Saturday

The images of this fateful day are still present in people's memories. On 30 March 2013, Mauritius lived one of the worst days of its history. In the early afternoon, Port-Louis was prey of heavy showers causing large accumulations of water and flash floods in the capital and surrounding areas. The streets were completely submerged, and people panicked. Port Louis was flooded: shops, homes and vehicles all took on water, creating great fear among Mauritians. Human chains were formed to withstand the strength of the water. Many cars were trapped and some of them started to float (5-Plus Dimanche 2013).

In the afternoon, tragic news was spread announcing the deaths of several people. At the end of the day, it was found that 11 people had lost their lives in the floods. Six people died in the underground passage of Caudan, which was completely submerged. The images of this catastrophe spread through social networks, internet sites and TV, which portrayed members of the Groupe d'Intervention Police Mauricienne (GIPM) and the Special Mobile Force(SMF) and professional divers looking for bodies. Mauritius was traumatised by this unprecedented event. At Canal Dayot, the water infiltrated dozens of houses causing significant damage. Trapped, many people were forced to flee to take refuge elsewhere. One person died in the rising waters, while several families in this region lost everything. In the following days, as the island mourned its dead. In a spirit of solidarity, Mauritians from all over the country offered food and other material assistance to the victims. For months, Mauritius had to struggle to get back on his feet.

Cyclone Berguitta

Although Berguitta was not yet close to Mauritius at 5 o'clock on Thursday 18 January 2018, there had already been one death and someone was seriously injured. The refuge centres were already crowded. At 5pm on the day before, there were 2,187 people in the country's 38 shelters, having had to leave their flooded and damaged homes (Accuweather 2018).

The authorities were unable to manage the refuge centres; there was a lack of beds, food and staff. The Minister of National Solidarity called on non-governmental organisations (NGOs) to provide hot meals to the people affected. In the face of the disaster, there was a groundswell of solidarity to help the victims, illustrating how the Mauritian people can be generous and compassionate.

Once again, this country, which aspires to become a high-income country aiming at developing 'Smart Cities', seemed incapable of supporting a small percentage of its inhabitants in a moment of distress. It was feared that the government, though aware of the arrival of Cyclone Berguitta, had made no provision or arrangements to support the people affected. Yet it was known that not everyone had concrete houses equipped with generators and provisions for weeks to withstand the cyclone.

The scene was already catastrophic even before the cyclone passed. As usual, when there is a cyclone approaching, Mauritians make provisions, buy candles, torches, bottles of water etc. And it is always the same scenario: some shopkeepers increase their prices while some products run out.

The risks of the sea flooding inland are great in some locations. In Port-Louis, it was believed that the esplanade of the Caudan as well as the tunnels would be overwhelmed by the sea rising. Some people did not follow official instructions and went to the already stormy sea on 17 January. At Poste Lafayette, the water had already covered the beach. Some 3,011 people were forced to leave their homes to take refuge in the shelters, while the effects of Berguitta were felt throughout the country. The largest number of refugees was in Port Louis, in this case 1,621 (L'Express 2018). There were little or no casualties but refugees remained in shelters for at least two weeks.

8.4 Developing a National Disaster Risk Reduction Policy in Mauritius

The Minister of Civil Service and Administrative Reforms and Minister of Environment and Sustainable Development stated that Mauritius was committed to develop a National Disaster Risk Reduction and Management Policy, strategic framework and action plan in the near future. According to Minister Alain Wong, the first step to implementing the Sendai Framework was to understand the risks faced; the government had already identified some of the risks via the commissioning of the Disaster Risk Reduction Strategic Framework and Action Plan ('the DRR Report') in 2013 based on the Hyogo Framework for Action 2005–2015, the predecessor of Sendai Framework (Government of Mauritius 2013).

The main aim of the DRR project, he said, was the development of an inundation, flooding and landslide national risk profile for the Republic of Mauritius, along with the development of a strategic framework for the integration of disaster risk management into urban planning and development. The National Disaster Risk Reduction and Management Centre (NDRRMC) was working on the recommendations proposed by the DRR Report.

The implementation of the Sendai Framework would require participatory, multi-agency and multistakeholder engagement, the minister highlighted, adding that the NDRRMC was collaborating with all stakeholders concerned to align Mauritius to the targets and priority actions of the Sendai Framework. 'We are working together on disaster risk reduction and management activities to ensure the sustainability of development efforts and reduce loss of life', he said.

The various actions taken and being implemented in order to mitigate the effects of disasters and save life and property include:

a. setting up a national multi-hazards early warning and emergency alert system; this was completed by the end of 2018;

b. training community-based disaster response teams;

c. launching a website and using social media for communication with the public during disasters;

d. setting up a state-of-the-art national emergency operations command to manage disasters at the national level; Rodrigues will have its own emergency operations command, as will all 12 local authorities;

e. the setting up of a Disaster Response Unit within the Mauritius Police Force to be a specialised high-level trained disaster response agency;

f. procurement of a Mobile Command Vehicle equipped with a robust communication and co-ordination system to co-ordinate disaster response on ground; and

g. including disaster management in the education curriculum for primary and secondary schools, with a school safety plan component.

8.4.1 Capacity building through the implementation of the Sendai Framework

The 'Implementation of the Sendai Framework: Development of Risk Reduction Strategies and Plans' workshop was aimed at supporting the capacity development and pilot testing of draft Sendai Framework indicators at the national level by the Mauritius National Disaster Risk Reduction Management Centre (NDRRMC). Furthermore, this workshop was delivered as a 'training of trainers' (ToT) that aimed to support the sustainable advancement of capacity development initiatives within Mauritius, as well as contribute to the development of an international cadre of disaster risk reduction professionals (Government Information Service 2015).

The Sendai Framework for Disaster Risk Reduction 2015–2030 was adopted by UN member states on 18 March 2015 at the Third UN World Conference on Disaster Risk Reduction (WCDRR) in Sendai City, Japan. The Sendai Framework is built on elements which ensure continuity with the work done by states and other stakeholders under its predecessor, the Hyogo Framework for Action, and introduces a number of innovations as called for during the consultations and negotiations. Many commentators have identified the most significant shifts as: a strong emphasis on disaster risk management as opposed to disaster management; the definition of seven global targets which are: the reduction of disaster risk as an expected outcome; a goal focused on preventing new risk, reducing existing risk and strengthening resilience; as well as a set of guiding principles, including the primary responsibility of states being to prevent and reduce disaster risk, and engage all-of-society and all-of-state institutions.

In Mauritius, certain actions were initiated, namely: the promulgation of the National Disaster Risk Reduction and Management Act 2016; the setting up of the National Disaster Risk Reduction and Management Council; and the implementation of a national multi-hazard early warning and emergency alert system.

8.4.2 Mauritius investment in resilience on disasters

Mauritius adopted used the Africa Regional Platform for Disaster Risk Reduction to identify the challenges facing small island developing states (SIDS) in the face of a rise in climate-related disasters which constitute a real threat to many of them. Mauritius has shown a keen interest in the Sendai Framework for Disaster Risk Reduction, investing 2 per cent of its gross domestic product (GDP), approximately US$230 million annually, in reducing disaster risk for the Indian Ocean nation's population of 1.3 million (McClean 2016). This has compelled the nation to use the Sendai Framework as and when calamities arise and set up a disaster risk committee monitoring potential hazards in the island.

Climate change includes higher temperatures, changing precipitation and runoff patterns, and extreme weather conditions, leading to reported increasing incidences of weather-induced disasters including floods, droughts, wild fires, strong winds, heatwaves and cold waves. Such climate change agents contribute to an increase in disaster risks, thus making disaster management a vital and urgent component of any

climate change adaptation programme. As a small island developing state, Mauritius has been ranked as the thirteenth country with the highest disaster risk and seventh on the list of countries most exposed to natural hazards (Prevention Web 2016). It is highly vulnerable to the effects of climate change and its adverse impacts on socioeconomic development.

The country has seen clearly the overlap between climate change adaptation and disaster risk reduction.

Speaking at the opening ceremony on Disaster Risk Reduction, Mr Alain Wong Yen Cheong, Minister of Environment, Sustainable Development, Disaster and Beach Management, said: 'Past events call for the need to integrate climate change adaptation, disaster risk reduction and management strategies…. Mauritius is investing in climate-resilient infrastructure such as improved drainage systems, elevated roads and larger reservoirs' (Preventionweb, 2016).

The focus on larger reservoirs and water storage capacity is an important issue as drought sweeps across the member states of the Southern African Development Community (SADC), affecting 41 million of the region's 257 million people, including 23 million who are in immediate need of food assistance (Preventionweb, 2016).

The national budget of Mauritius in 2016 provided for a series of measures in the areas of renewable energy, sustainable transport, smart agriculture, the ocean economy and water. 'We expect these measures to have twin contributions in addressing climate change impacts as well as reducing disaster risks', the minister said.

Since the mid-1940s, overcoming cyclone impacts has been a top priority and after past tragedies, 90 per cent of the Mauritian housing stock now comprises cyclone-proof concrete buildings. Cyclone and drought-resistant sugar cane varieties have also been developed to secure the future of the country's lucrative sugar industry.

'Building back better', a core priority of the Sendai Framework, is a feature of the country's disaster risk management strategy, with a focus on ensuring that essential utility services suffer minimum disruption from events such as the cyclones which hit the Indian Ocean archipelago once every five years.

According to the Meteorological Services, Mauritius is hit 3 to 5 times every year by storms, which often means heavy rains which can trigger landslides. Some 37 sites have been identified across the country as being susceptible to landslides.

Minister Cheong focused his debate during the presentation on mainstreaming the four priorities for action of the Sendai Framework into Mauritius's national programmes for disaster risk reduction. He stressed it was crucial to understand all dimensions of disaster risks, strengthen disaster risk governance at all levels and across all sectors, invest in resilient infrastructure, and reinforce disaster preparedness for more effective response and recovery. Accordingly, Following the establishment of the National Disaster Risk Reduction and Management Centre in 2013, there were 12 local DRR committees operating across the country and they had conducted 50 disaster simulation exercises during 2016. (Mc Lean, 2016). over the last year.

As part of his argument for investing in resilience, Minister Cheong cited the UN International Strategy for Disaster Reduction (UNISDR) Global Assessment Report on Disaster Risk Reduction (GAR; UNISDR 2015), which found that governments need to be setting aside US$314 billion every year globally to meet annual average losses from earthquakes, tsunamis, tropical cyclones and river flooding.

'For small island developing states like Mauritius, escalating disaster losses pose an existential threat. It is forecast that SIDS may lose on average 20 times more of their capital stock annually due to disasters', he said.

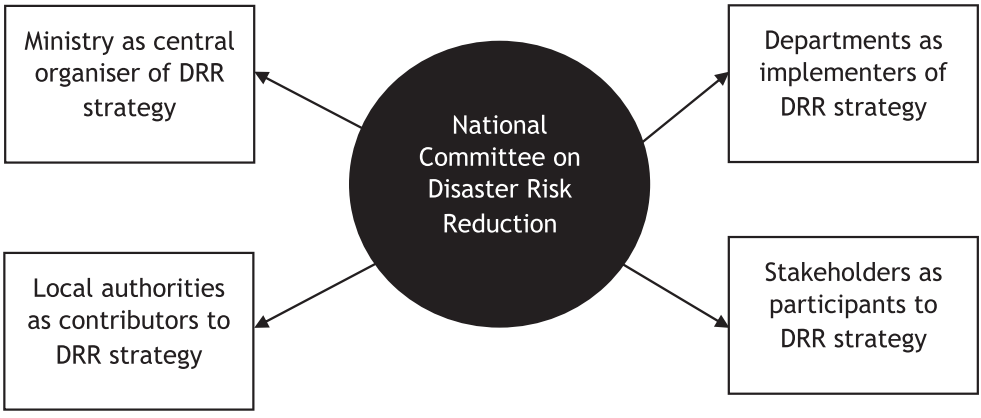
8.4.3 Initiating action for a National Disaster Risk Reduction Plan

It was acknowledged there was a national need to develop a National Disaster Risk Reduction and Management Plan for disaster risk reduction and management by the Government of Mauritius in 2015. This would be reviewed and updated as and when necessary, providing for measures to be taken for the prevention of disasters or the reduction of their impacts. The integration of disaster risk reduction down to the local level was also envisaged, along with implementation of measures to ensure preparedness and capacity building to respond effectively to disasters. This could include the allocation of roles and responsibilities of every ministry, department, local authorities and other stakeholders, along with operational arrangements for in disaster risk reduction and management activities (see Figure 3).

The National Crisis Committee on Disaster Risk Reduction should take decisive and timely actions through the National Emergency operations Centre (NEOC) to: ensure that general preparedness plans are activated at all levels; safeguard the life of persons in danger, including evacuating persons at risk; supervise the organisation of disaster response operations; provide relief assistance; take appropriate measures during the initial recovery phase; and other measures as may be appropriate in the circumstance.

Building a disaster resilient nation is a high priority for the Mauritius government. Yet, to be realistic, there exist several constraints, namely: lack of financial resources;

Figure 8.3 Institutions involved in disaster risk reduction in Mauritius



as an island state there is limited available space in the event of relocation; continuous capacity building of personnel; and renewing existing equipment with new technology. Strengthening the network of monitoring stations is costly and upgrading equipment to new technologies is also expensive. New regulations and policies are being put in place to develop resilience of the nation.

8.4.4 Setting up of a National Disaster Risk Reduction Centre in Mauritius

Created in 2016, the National Disaster Risk Reduction and Management Centre (NDRRMC) is the body that acts as the main institution for the State of Mauritius for planning, organising, co-ordinating and monitoring disaster risk reduction and management activities at all levels. The NDRRMC co-ordinates with all stakeholders (World Risk Report 2017).

The National Centre, inter alia:

a. acts as the main institution in Mauritius for co-ordinating and monitoring the implementation of disaster risk reduction and management activities as per the National Strategic Framework and National Plan;

b. ensures the implementation of the National Strategic Framework and National Plan;

c. co-ordinates and monitors all disaster risk reduction and management activities;

d. co-ordinates and monitors the implementation of the disaster risk reduction and management programmes through community participation and public awareness campaigns;

e. works in close collaboration with the Mauritius Meteorological Services, which shall develop and improve warnings and advisories systems for all natural hazards affecting Mauritius;

f. implements a national multi-hazard emergency alert system to provide accurate and timely advice to the public and key stakeholders;

g. supports ministries, government departments, local authorities and communities in building capacity for disaster risk reduction and management;

h. facilitates and co-ordinates the conduct of regular trainings, drills and simulation exercises to test the adequacy of disaster response plans;

i. undertakes and participates in post-disaster reviews, including lessons drawn from previous disasters in disaster preparedness and response plans;

j. assists relevant stakeholders to develop an appropriate risk transfer mechanism for post-disaster recovery and rehabilitation purposes;

k. collaborates with all relevant stakeholders so that disaster risk reduction and management become an integral objective of environment-related policies and plans, sound land-use planning, natural resources management, education

and social development plans, economic and sectoral policies, as well as infrastructure through enforcement of building codes;

l. fosters regional and international co-operation in disaster risk reduction management issues, including best practices and sharing of expertise;

m. promotes research and development and commissions studies on disaster risk reduction and management matters; and

n. publishes and disseminates information concerning disaster risk reduction and management.

8.5 Capacity-building at the community level

The citizens of Mauritius are well aware and well educated regarding most hydro-meteorological hazards, namely tropical cyclones, heavy rainfall, large waves and strong winds. Some knowledge and understanding exists regarding landslides and tsunami. Public awareness campaigns include audio, video and clips on television and radio, brochures, posters in public places and government buildings, and talks in educational institutions, in communities, focusing on women, youth centres and the elderly.

Apart from centralised decision-making, local authorities, municipal and district councils have legal responsibility to manage risks and DRR at the local level (Dunputh 2012). All municipal and district councils meet individually before the beginning of the cyclone season, to review their strategic plans, take note of gaps and inadequacies experienced during the previous cyclone season, and to ensure a status of preparedness of all partners concerned. The challenge here again is the enforcement of regulations and the absence of a legal framework. The overall mind-set of the people is that local authorities or the central government will carry out DRR; there is little individual commitment and therefore inadequate community participation. Further education and public awareness need to be undertaken by local authorities to engage the whole community at the local level.

Some work has already been done in Mauritius to adopt the Sendai Framework since Mauritius is a participating member in many of the initiatives and conferences held on the subject. However, according to Desai (2015), the country's approach has tended to involve a particular authority/department representing the country and developing some strategy to the best of their ability, without a thorough or 'holistic' approach. This approach is not going to provide the necessary capacity for 'building resilience to natural disasters'. A recent study conducted by a consortium of both international and local consultants for Mauritius identified the following nine key recommendations after an assessment revealed that substantial areas of the country were exposed to elevated levels of flood, coastal flooding and landslide hazards (Desai 2015). The recommendations were, namely, to:

1. strengthen the co-ordination of risk prevention;

2. transpose the results of the study into the National Development Strategy;

3. cease any further degradation of coastal riverine and marine ecosystems;
4. accept a culture of risk and make sure that all hazards and their potential impacts on every aspect of society were fully understood and considered;
5. create a sound spatial data infrastructure;
6. improve emergency response capacity to ensure seamless co-ordination of all activities before, during and after a disaster strikes;
7. extend the existing early warning systems for tsunami and cyclones to cover other hazards, such as flood and drought; and
8. create an emergency fund to facilitate recovery from a disaster.
9. engage the communities in potential disaster risks.

8.5.1 The functions of local committees

Every local committee shall, in respect of the area under its jurisdiction and under the supervision of the National Disaster Risk Reduction and Management Centre 2016 ('the National Centre'):

a. work closely with its local community in disaster risk analysis and vulnerability assessment;
b. prepare and implement, in accordance with any guidelines laid down by the National Council, the local plan to be approved by the National Centre;
c. promote and implement disaster risk reduction and management education and public awareness programmes;
d. build capacity, acquire resources and co-ordinate disaster risk reduction and management activities; and
e. conduct trainings, drills and simulation exercises.

8.5.2 Capacity-building-through local committees

Setting up local committees with clear objectives, as mentioned above, demonstrates that there is an intention to develop competencies at the local level. So far, this chapter has highlighted views first, from the strategic or governmental perspective and then from a tactical or national perspective through the existence of the Disaster Risk Reduction Committee. Currently, to be able to develop capacity, there must be people coming from communities and different spheres of life. These could include educators, force and volunteers. These are in fact key resources that might be addressed in capacity building developed in this paper.

Capacity building will first be assessed in terms of resources to be used, followed by how people and organisations might be effectively prepared to face the impending challenge of natural disasters in Mauritius and also to better respond to this major concern.

8.5.3 Building capacity through competencies

To build capacity, one needs to consider the importance of competencies. Capacity building is defined as the process through which individuals and organisations obtain, improve and retain the skills, knowledge and other resources necessary to do their jobs competently or to a greater capacity (SPRC 2018). Community capacity building is a conceptual approach to social, behavioural change and leads to infrastructure development. It simultaneously focuses on understanding the obstacles that inhibit people, governments, international organisations and NGOs from realising their development goals and enhancing the abilities that will allow them to achieve measurable and sustainable results.

The term 'community capacity building' emerged in the lexicon of international development during the 1990s. Today, community capacity-building is included in the programmes of most international organisations that work in development, such as the United Nations, World Bank and non-governmental organisations like Médecins Sans Frontières (MSF 2011). Community capacity building often refers to strengthening the skills, competencies and abilities of people, communities and local grassroots movements so they can achieve their goals and potentially overcome the causes of their exclusion and suffering. Organisational capacity building is used by NGOs and governments to guide their internal development and activities.

Below, an illustrative example of capacity building is provided showing potential people that could be involved at the community level and their capabilities.

8.5.4 Actions to be initiated

Figure 8.4 provides a mind map of how a local team – as a result of capacity building – carries out the different actions that will be needed from them. Though the actions are not exhaustive, they clearly depict how effective capacity building can play a positive role in managing disasters at the community level in Mauritius[1].

From the profiles presented, it is important to see that there is proper definition, monitoring and screening of the capacity built around, including the importance of synergy.

Defining capacity

Capacity-building at the community level must be well defined. This requires finding the right people with the right profile to deal with the problems resulting from disasters in Mauritius. Such capacity has also the ability of providing a bottom-up approach to dealing effectively with disasters. Two key concepts in such development are monitoring and screening capacity and synergy.

Monitoring and screening capacity

It is necessary to see how each selected member fits in the group and how the role is effectively carried out. Each role should be well defined to avoid duplication and redundancy. Each contributor must know what is expected of him or her.

Figure 8.4 Potential citizens involved in disaster management at the community level

Local community	Illustration	Capabilities
Educator		The educator is an influential person in providing pedagogical awareness of disasters and their risks to the population. Being widely educated, the educator can act as a mentor to refugees and vulnerable people. Precaution regarding health and safety can be passed onto refugees. Educators also provide effective mentoring to school children, who in turn influence the family.
Police force		The police force ensures security in times of disaster. It plays an important role in communicating information linked with disasters and providing help to people in difficulty. Precautionary measures against disasters can be implemented by the police force. Even monitoring security can be quite well handled by the police force.
Student		Students can become volunteers in helping people in times of disaster. This could be an experience that they can gain vocationally and that can add to their competencies which can make them accountable as potential community leaders. Volunteering could be also a part of the function that students undertake during free times away from studies.
Social worker		Social workers are invaluable in times of natural disasters. They can address both problems of a physical or psychological nature. Being close to the community, social workers can be a first-hand resource to people in difficulty and may be quite effective in handling immediate problems. They can help in welcoming refugees in centres/ shelters in times of crisis.
Psychologist		A psychologist or nurse can be an important resource in times of disaster. People who are displaced are psychologically affected by material or physical loss. Displacement and adjustment might be difficult for refugees. Psychologists can help addressing problems affecting vulnerable people and providing the necessary support and comfort in times of distress.
Volunteer		Volunteers might constitute the most important aspect in the capacity building exercise. They can come either from social workers or any citizen willing to provide a helping hand. They could be first-aiders, helpers or any opinion leader in the community who is willing to immediately respond and address the needs of the vulnerable people.

Synergy

Synergy is expected because all members forming the capacity must collaborate fully and play a useful role in bringing the desired outcomes in times of disasters. Quite often it is feared that a lack of collaboration and group cohesiveness can be detrimental to capacity building.

Figure 8.5 outlines how the local team is expected to work under capacity building. The main tasks are highlighted.

- Working closely with its local community in disaster risk analysis and vulnerability assessment

  Once capacity is built among members of the local community, there will be the need to work closely with the community in disaster risk and vulnerability assessment. Disaster risk assessment comes from an assessment of potential risks in areas that are the most likely to be affected. In Mauritius, coastal areas are places at risk, namely Poste de Flacq or Baie du Tombeau (see Figure 8.6). These have been identified as tsunami risk areas. Similarly, localities close to rivers and terraces in Mauritius are also important in the assessment. The possibility of landslides exists in inhabited urban areas like La Butte (Davies 2015). In such circumstances, the local community must be informed of the risk. Some simulation/drill exercises are carried out at regular intervals and these are bound to have a positive effect on the community, provided that effective collaboration is obtained.

- Preparing and implementing, in accordance with any guidelines laid down by the National Council, the local plan to be approved by the National Centre

  It is essential to have the plan implemented at the national level. Capacity built with the local community will be empowered to work out and implement

Figure 8.5 Local team working under capacity-building

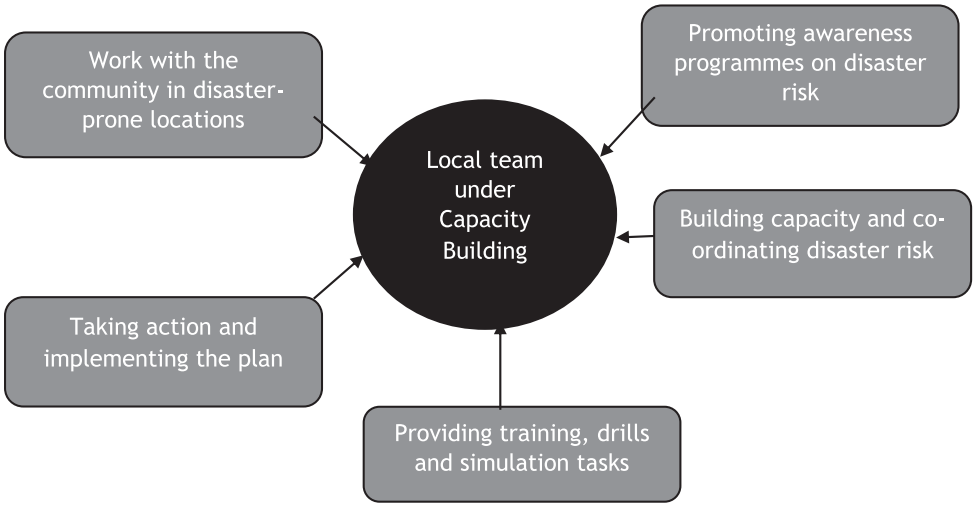
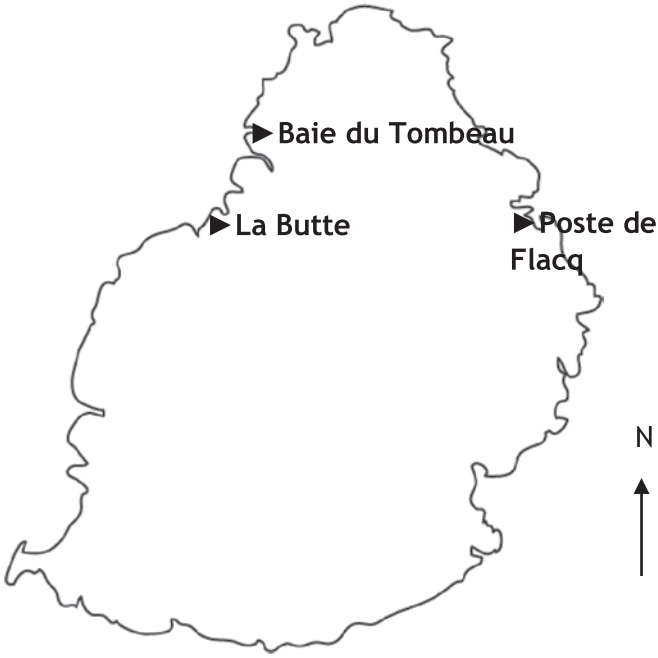


Figure 8.6 Vulnerable locations in Mauritius



the guidelines. For instance, there could be actions initiated like awareness campaigns and risk alerts through communiqués, welcoming the refugees and displaced persons in shelters and properly accommodated places. There could also be lifesaving activities and similar precautionary measures likely to be taken by actors involved in the national team. Further, the recording of data, communications with different parties involved, as well as interactions with higher authorities like the central committee, the police force and the national security forces could well be initiated by the team at the community level.

- Promoting and implementing disaster risk reduction and management education and public awareness programmes

  The local community team has to be effective in promoting disaster risk reduction, management education and public awareness programmes. Campaigns through local radio and posters, ones that are fairly cheap and within budget parameters, could be effective in building public awareness of disasters. The Mauritian community is well aware of precautions to take during the cyclonic season, and the low incidence of accidents and deaths evidence this. Little has been so far said of other disasters, where the public is informed through traditional media, because their impact has not been felt that strongly. A simulation exercise based on a possible landslide or tsunami might look simple, yet its importance must be emphasised to the public. Traditional media involves television, radio, posters and announcements made by authorities, while non-traditional means are mainly social media such as Facebook, podcasts and websites that provide online information on the imminence and threat of disasters. In times of crisis

in Mauritius, traditional media have an advantage over the non-traditional ones. People have been accustomed to using radio and television in times of cyclones and calamities as such experience is easier and more accessible to them.

- Building capacity, acquiring resources and co-ordinating disaster risk reduction and management activities

  The co-ordination of disaster risk and management is important. Too often problems crop up suddenly in such situations and it becomes difficult to co-ordinate effectively – as with Ebola disease management or the Haiti earthquake in 2010. In easily cut-off areas, it is imperative to build local capacity to respond. Local residents can be empowered with early warning systems, evacuation plans, and training to identify and mitigate hazards before the emergency strikes (CARE Emergencies 2015). Co-ordination by the local team should be done with the community, the National Council for Disaster and including international groups like the Red Cross or external NGOs willing to assist a community. For example, access to a location affected by a disaster might be quite difficult. The local team could be of great help by quickly liaising with partners, offering facilities to third parties, as well as managing activities locally like providing supplies of medicine, food and amenities required. Transparency and accountability should also be enforced in such critical times.

- Conducting trainings, drills and simulation exercises

  For the local team to be effective, it is important to implement a training programme. This comprises short but tailor-made training programmes that particularly address a disaster situation. Through tailor-made training programmes for humanitarian actors, in-country technical support and a global network of practitioners, effective capacity building can integrate environmental considerations within humanitarian and early recovery operations (UNEP 2018). First-aid training is essential in such situations. Similarly, team building and team management programmes could be helpful where the local team needs to be well managed. From the practical side, drills and simulation exercises are helpful in that they train local community members to be familiar with the real needs in a crisis situation.

8.6 Conclusion

This chapter discusses the relevance of capacity-building at the community level in Mauritius. Examples of nations involved in disaster risk reduction are numerous. Just a few examples – like a stakeholders' evaluation of the Metro Manila prototype experience where the community took part in the launching the Community-Based Disaster Risk Reduction Training Learning Circle to enhance learning through knowledge and solution exchanges, by focusing on addressing systemic gaps and topics in risk reduction. Such a situation indicates a keen interest and involvement from the community, creating a positive dynamic to engage stakeholders and commit institutions to the goal of changing practices and influencing policy (Earthquakes and Megacities Initiative 2007). In Fiji, the provincial government incorporated

disaster risk reduction and development priorities identified by communities into its provincial development plan (UN Secretariat of ISDR 2010). In Bangladesh, as the result of a community risk assessment, local authorities got practical experience in assessing their risk environment, determining the vulnerabilities of their local communities and taking the appropriate actions to mitigate them (ibid).

The National Disaster Risk Reduction Committee in Mauritius has set up committees at the local level, but their functions and roles have not been explicitly defined. Taking into consideration that hazards have increased in the country recently, creating more disasters and risks, it is necessary that the capacity for risk reduction and response be developed at the local level. By identifying actors likely to help in creating capacity within communities, it is likely that there will be better actions initiated at the local level, depending upon the implementation of the desired policies.

It is expected that a high level of co-operation will be provided to local teams and this must be encouraged through training, motivation and management. Being close to the community in question, capacity building at the community level provides first-hand assistance to the local population, develops quick and effective relationships with vulnerable groups, while addressing directly the immediate needs and concerns of people in distress. At the same time, this small picture sensibly contributes to the bigger picture of capacity building that impacts people under distress during disasters.

Note

1 Illustrations used: clipart-library.com; istockphoto,com.

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