

INTRODUCTION

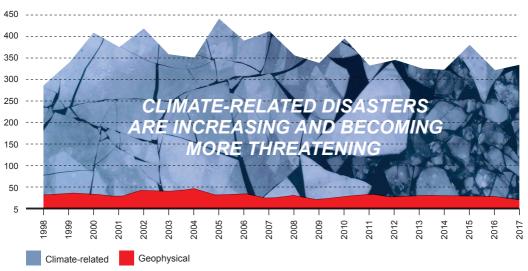
If organisations, policies and practices do not take climate change into account, development interventions and disaster risk reduction and management will become progressively ineffective at reducing poverty and vulnerability to disasters. Addressing and adapting to climate change and its effects is a global and local priority with challenges for both the public and private sectors, including how to prepare for disasters that have grown in intensity and frequency. A long-term perspective in building resilience can be created by placing climate change within disaster risk reduction, while promoting to achieve the wider sustainable development goals for people and places.



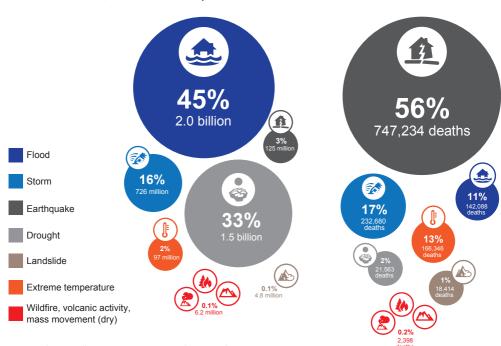
Climate Change Adaptation and Resilience (CCAR)

From risk to resilience.

Number of disasters by major category per year 1998-2017



Source: CRED & UNISDR, Economic Losses, Poverty and Disasters 1998-2017



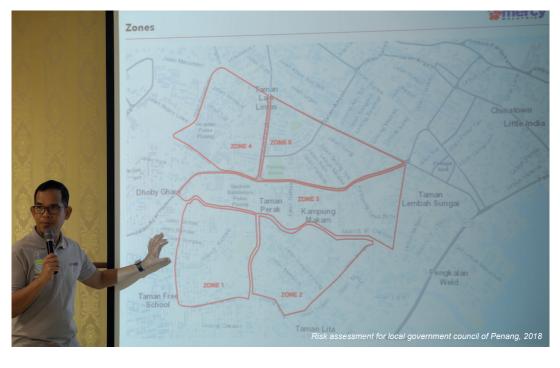
Number of people affected (right) and number of deaths (left) per disaster type 1998-2017 Source: CRED & UNISDR, Economic Losses, Poverty and Disasters 1998-2017



Climate change and disaster

The challenges facing poor and marginalised communities in today's society are multiple and complex; from economic crises, to natural disasters, to environmental degradation and conflict, all of which are increasing poor people's vulnerability and posing significant challenges to securing their livelihoods. Climate change threatens to exacerbate the problem further by creating an additional layer of uncertainty and risk for vulnerable communities to deal with, increasing the severity and frequency of disasters and jeopardising development gains made to date. The cost of ignoring these impacts will soon become impossible to meet.

Climate change-induced natural hazards increase both in magnitude and frequency, thereby threatening the stability and sustainability of social-ecological systems. Society has to adapt its economic, institutional, political and social practices in order to protect the physical environment and people. Addressing and adapting to climate change and its effects is a global priority with challenges for both the public and private sectors, including how to prepare for disasters that have grown in intensity and frequency. MERCY Malaysia with its partners and members of the community are constantly updating, a menu of diversified good practice adaptation options to build disaster resilient communities through climate change adation and localized actions.



Scoping and detailed risk assessment

Climate change is happening and bringing with it alterations in climatic risk patterns. The impact of climate change has potential to undermine development achievements and threaten tens of millions of people. This program service will help understand climate change phenomena, and address it through strategic scoping and risk assessment.

PROGRAM OBJECTIVE

Develop information and focus area that will feed into activities and programs in formulating strategic plans for CCAR actions.

KEY ACTIVITIES

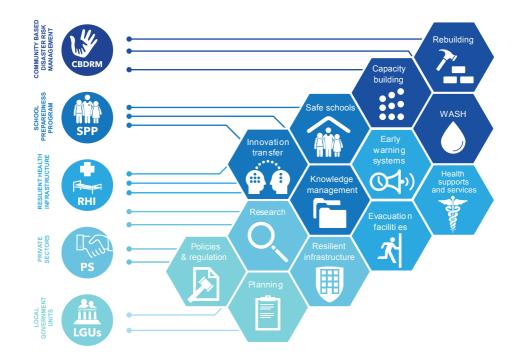
- 1. Discuss project drivers with stakeholders to create shared vision
- 2. Review approach options and requirements and select methodology
- 3. Define scope for climate variables, hazards, and timeframe
- 4. Develop impact chain for a major climate risk within the locality of program area
- 5. Decide on methodologies for risks and capacity assessment
- 6. Conduct detailed risk assessment and produce analytic report

DELIVERY DURATION

1 to 2 months depending contextual needs and program sophistication level

PROGRAM COST RM 25,000 (Malaysia)

RM 35,000 (ASEÁN)



Formulation of adaptation options and action plans

There is no one-size-fits-all solution. Awareness raising and capacity-building processes are urgently needed at all levels that will support long-term learning processes and, at the same time, take the broad range of ecosystems and socio-economic conditions into consideration through specific adaptation options and action plans.

PROGRAM OBJECTIVE

Formulate specific CCAR strategies and actions plans for stakeholder

KEY ACTIVITIES

- 1. Review risk assessment for priority options and resilience solution
- 2. Research and rank resilience options for effectiveness in responding to climate risks, value for money, practical implementation and sustainability
- 3. Integrate preferred climate resilience measures into strategic action planning, operational procedures and CCAR implementation plan design

DELIVERY DURATION

1 month

PROGRAM COST

RM 10,000 (Malaysia) / RM 15,000 (ASEAN)



Community-based CCAR training program for local actions

Society has to adapt its economic, institutional, political and social practices in order to protect the physical environment on which it depends from anthropogenic climate change. Local communities have the right to know and understand the purpose of any climate adaptation effort in their community.

PROGRAM OBJECTIVE

- 1. Train local communities with CCAR knowledge and tools
- 2. Encourage 'local champions' and establish CCA-DRM local committees

KEY ACTIVITIES

- 1. Participatory rural appraisal; Community risk assessment; Vulnerability and capacity assessment; and establish recommendations for development plans
- Capacity development and establishment of local leaders to manage community-led CCA-DRM local committees

DELIVERY DURATION

5 months (end-to-end process)

PROGRAM COST

RM 60,000 (Malaysia) / RM 90,000 (ASEAN)



CCAR training program for local government units

Climate changes will increase the magnitude of risks faced by local councils and agencies, sometimes even challenging their ability to maintain infrastructure and provide essential services to their communities.

PROGRAM OBJECTIVE

- 1. Ensure that local council and agencies' systems will be climate and disaster resilient
- 2. Prioritise risks that require further action as a basis for decision-making and planning
- 3. Align council's action planning with SDGs, SFDRR and NUA

KEY ACTIVITIES

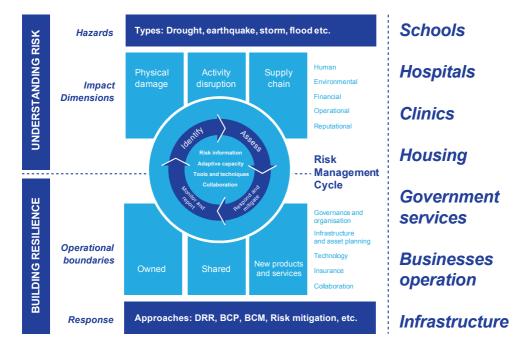
- 1. Conduct and analyze risk assessment for priority options and resilience solution 2. Identify and assess the risks that climate change poses to local council assets, operations and services
- 3. Capacity development; establish risk communication plan; and documentation

DELIVERY DURATION

5 months (end-to-end process)

PROGRAM COST

RM 60,000 (Malaysia) / RM 90,000 (ASEAN)



CCAR for essential services and infrastructure

Our living ecosystem and structure rely on links to multiple essential services such as schools, hospitals and many others through a complex set of infrastructure system. These services and infrastructure are usually highly interactive and interdependent.

PROGRAM OBJECTIVE

Improve resilient level for critical infrastructure and essential services through trained human resources, improved system and integrated CCAR measures

KEY ACTIVITIES

- 1. Conduct and analyze risk assessment for priority options and resilience solution
- 2. Formulate adaptation strategies and addressing vulnerability
- 3. Integrate preferred climate resilience measures into strategic action planning
- 4. Establish mitigation plan; risk communication plan; and documentation
- 5. Capacity development and CCAR trainings for stakeholders

DELIVERY DURATION

10 months

PROGRAM COST

RM 100,000 (Malaysia) / RM 150,000 (ASEAN)



CCAR for urban resilience

Urban areas are both greatly affected by the impacts of climate change. Urban adaptation and mitigation therefore provide significant opportunities, with cities having a key role to play in addressing climate change.

PROGRAM OBJECTIVE

- 1. Formulate specific CCAR strategies and actions plans for stakeholder
- 2. Compliment local development plans with CCAR frameworks and strategic plan
- 3. Align city council's action planning with SDGs, SFDRR and NUA

KEY ACTIVITIES

- 1. Conduct scoping exercise and detailed risk assessment
- 2. Review risk assessment for priority options and resilience solution
- 3. Formulate adaptation strategies and addressing vulnerability
- 4. Linking CCAR strategies and action planning with development planning

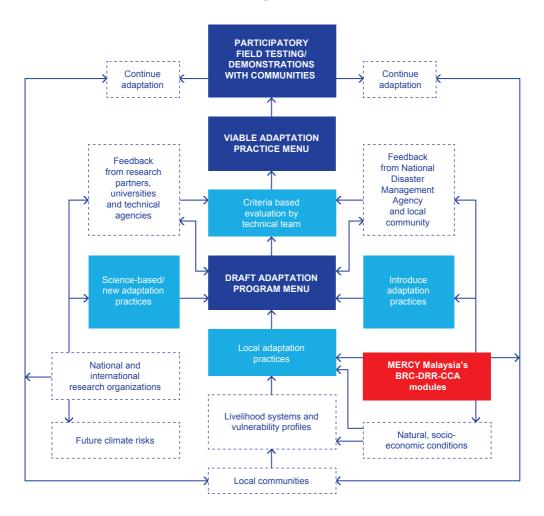
DELIVERY DURATION

12 - 16 months depending contextual needs and scale

PROGRAM COST

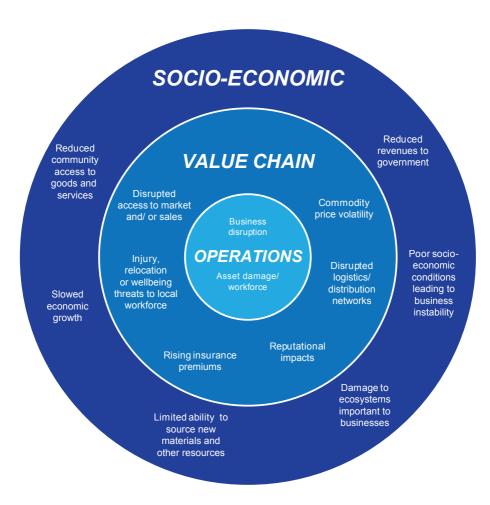
RM 240,000 (Malaysia) / RM 300,000 (ASEAN)

Institutional structure, adaptation framework and process flow



- Adaptation is any action taken to reduce the impacts or even benefit from the effects of climate change
- 2. Assessing the vulnerability of a locality is the first step to plan and undertake adaptation action. Components of vulnerability include exposure, sensitivity and adaptative capacity
- 3. Adaptation actions need to be designed to suit the circumstances and needs of different sectors and countries/ regions
- 4. There is a strong link between adaptation and development planning. Integrating adaptation and development planning can bring additional benefits beyond reduced vulnerability to climate change

Why CCAR is important?



Increased adaptive capacity often results from improvements in governance, business value chains and essential services, and can contribute to improved community livelihoods. This include:

- 1. Improved availability and access to economic resources
- 2. Improved skills and human capital
- 3. Improved social cohesion and greater social capital
- 4. Reduce vulnerability to the impacts of climate change, by building adaptive capacity and resilience
- 5. Enhanced contribution of adaptation action to sustainable development





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