



(Source: PACE SD EU GCCA Project)

Adaptation to Climate Change

As a result of a large increase in greenhouse gases (GHGs), the world is now grappling with the climate change problem. There are two key ways of dealing with this:

1. Mitigation — reducing emissions due to human activity; and
2. Adaptation — adjusting behaviours so that people can cope with the changing conditions.

While both types of responses are crucial and complementary, climate change is already occurring and will continue to occur due to the amount of GHGs already present in the atmosphere. The strongest mitigation efforts cannot avoid the impacts of climate change in the decades to come. As such, it is necessary to adapt to the impacts which are already 'locked in' (see Figure 1).

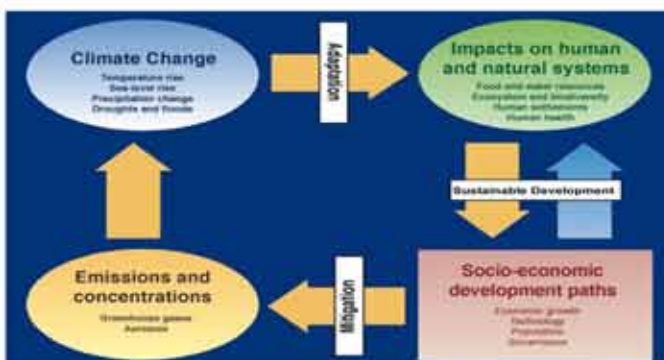


Figure 1: An integrated framework on climate change, illustrating mitigation, adaptation and sustainable development pathways as the key areas in our decision to respond to the impacts of climate change (Source: IPCC, 2001)

According to the IPCC (2007), **adaptation** is:

“The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effect, which moderates harm or exploits beneficial opportunities”.

Adaptation consists of actions or activities to reduce the adverse impacts of climate change, including the impacts of climate stresses on both human and natural systems.

Types of Adaptation

There a number of approaches to adapt to climate change, however it is important to consider the following four points prior to undertaking any projects:

- Type - Proactive adaptation is undertaken in anticipation of an event, and reactive adaptation is if it is done in response
- Timing and Location - Short-term or long-term, localised or widespread
- Purpose - Done autonomously or planned as a result of a policy decision
- Agents - Public or private, government, industry, business or individual

Examples of adaptation measures

Enhancement of the adaptive capacity of communities and systems (natural and man-made) to the current and projected future. Moreover, we need to build our individual capacity to respond and adapt to the impacts of climate change.

Some examples of adaptation actions or activities:

- Establish early warning systems.
- Improve risk management.
- Generate awareness activities on climate change, extreme weather events.
- Enhance water use efficiency.
- Increase rainwater harvesting.
- Build new water reservoirs.
- Grow resilient staple crops, yams and taro.
- Create more garden plots for food security.
- Plant crops in dug-out canoes.
- Diversify crops grown.
- Vary farming practices and crop use.
- Build houses on stilts
- Plant and maintain mangroves and native vegetation
- Use forest food resources; and
- Construct and maintain sea walls including traditional sea walls.
- Improve human health and well-being.

Adaptation to Building Resilience

Adaptation is a process that involves building adaptive capacity, and reducing exposure or sensitivity to climate stresses and change.

Reducing vulnerability is the foundation of adaptation. It is important that we collect and analyse information on exposure and sensitivity to climate stresses, projected climate impacts and adaptive capacity to better understand who is vulnerable and why. From this, appropriate adaptation actions or activities can be designed and implemented.

A resilient community is one that is well-placed to manage climate stresses, change and hazards — to minimise the effects of such and recover quickly from any negative impacts.



Tuvalu youth face the impacts of the King Tide events in their home in Tuvalu (Source: Gary Braasch)

Adaptation of Pacific Island Countries

This factsheet was produced by PACE-SD under the funding support of the Australian Government's 'Future Climate Leaders Program' (AusAID-FCLP) and the European Union's 'Global Climate Change Alliance (EU GCCA) Project'.

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