

# ADAPTATION CLIMATE VARIABILITY/CHANGE AND RELATED DRIVERS

## 12 CLASSES OF ADAPTATION



BROAD OBJECTIVE	CLASS OF ADAPTATION	DESCRIPTION OF PLAUSIBLE ADAPTATIONS
ADDRESSING DRIVERS OF VULNERABILITY	1. Human Capital	Changes in skills, health and hability to labour of members of a household
	2. Financial capital	Changes in flows of money and savings that households have available, including loans and insurance
	3. Social capital	Changes in networks, relationships and membership of groups that households can use
	4. Natural capital	Changes in land ownership and access to natural resources and storage facilities
	5. Physical capital	Changes in infrastructure and goods such as tools and equipment that households can use to increase productivity and non-productive assets of the households (e.g. house material)
DISASTER RISK REDUCTION	6. Managing long term risk	Efforts to build physical and social infrastructure that mitigate the worst impacts of an event. These can be one off activities, for example, building a sea wall, cyclone shelters, or on-going initiatives, e.g. developing flood risk management plans or relocating communities.
	7. Preparedness	Efforts to ensure communities are ready to respond to an event. These activities take place cyclically, for example, ensuring sea walls are maintained, practicing evacuation drills, or testing early warning systems.
	8. Response	Efforts to ensure affected households, communities, business and services receive appropriate assistance during and immediately following an event, e.g. evacuation support, first aid medical supplies, emergency responders
	9. Post disaster recovery and rehabilitation	Efforts to ensure affected households, communities, business and services are able to rebuild following an event, e.g. rehousing, reconstruction, etc.
LANDSCAPE /ECOSYSTEM RESILIENCE	10. Provisioning services	Changes in ecosystem goods, quality or productivity that can be directly consumed, such as food, water, raw materials (e.g. fibre, biofuel, ornamental items), but also adaptations that enhance these services such as the use of irrigation and fertiliser
	11. Regulating and Maintenance Services	Changes in the services that keep the wider planetary systems (such as the atmosphere, cryosphere, oceans) functioning and include the regulation of climate, air, nutrient cycles and water flows; moderation of extreme events; treatment of waste – including water purification; preventing erosion; maintaining soil fertility; pollination; and treatment of waste – including water purification; preventing erosion; maintaining soil fertility; pollination; and biological controls, such as pests and diseases.
		Changes in the habitats that maintain the life cycles of species or maintain genetic diversity, through quality and quantity of suitable habitats. In turn, these habitats underpin the health of provisioning and regulating services.
	12. Cultural services	Changes in aesthetic, recreational and tourism, inspirational, spiritual, cognitive development and mental health services provided by ecosystems.

1. The paper by [Suckall et al \(2018\)](#) defines 3 categories (also referred to as broad aims or theoretical frameworks) of adaptation.
2. The authors use 13 classes of adaptation under those broad aims but using the Common International Classification of Ecosystem Services (CICES) only 12 classes are used (11. Regulating services and 12. Habitat services into the new 11. Regulating and Maintenance Services (biotic and abiotic))
3. The observed adaptations (from literature review) were grouped into types using the categories described bellow