EXPLAINER

WHAT IS ADAPTION?

Climate Systems

National Environmental Science Program

Adaptation is how we adjust or do things differently to make it safer, and easier to live with our changing climate. Adaptation can be ecological, social, or economic responses to present day or likely future climate change.

Maladaptation refers to actions intended to reduce the impacts of climate change that create more risk and vulnerability in the future or for a different place, community or value. For example, building a seawall to protect a house that creates erosion elsewhere.

What is the difference between adaptation and mitigation?

We use the term 'mitigation' to talk about reducing greenhouse gas emissions like carbon and methane. Adaptation actions should avoid increasing greenhouse gas emissions.

There are lots of different ways adaptation can happen. This includes:

Incremental

Small adjustments or actions e.g. beach nourishment to maintain current shoreline and beach quality, protect houses from sea-level rise.

Transformational

Adaptation actions which result in a significant change to community goals and expectations, potentially disrupting those communities and their values e.g. relocation of an entire suburb or community including homes, businesses and infrastructure.

Anticipatory or proactive

Adaptation that is planned and takes place before the impacts of climate change are observed e.g. local government prevents development of a site likely to be inundated by sea level rise in 50 years.

Autonomous or reactive

Adaptation undertaken in response to climate change that has already been experienced e.g. a bridge is rebuilt above new flooding levels after it was destroyed in a flood.

Private

Adaptation taken by a person or business e.g. Installing a water tank to ensure water availability during a dry spell.

Public adaptation

Adaptation undertaken by a public entity to benefit the broader community e.g. local government undertakes beach nourishment to ensure beach is available to the public for recreation despite sea-level rise.

Note an adaptation action can combine different types – for example, it can include both incremental and public.

Resilience describes how well people or ecosystems cope with climate shocks. Vulnerability focuses on before the shock, while resilience tends to focus on recovery after a shock or trend.

For more information

Visit: nesp2climate.com.au

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