SYNOPSES SERIES:

SLOW ONSET EVENTS

The technical paper was mandated by COP 17 (2011) under the work programme on loss and damage (L&D).

OVERVIEW

Slow onset events include:

* sea level rise;
* increasing temperatures;
* ocean acidification;
* glacial retreat and related impacts;
* salinization;
* land and forest degradation;
* loss of biodiversity;
* desertification.

This explicit definition of the types of slow onset events is contained in decision 1/CP.16, paragraph 25, establishing the Cancun Adaptation Framework (of which the work programme on loss and damage is one component).

The paper draws on the discussions from regional expert meetings for Africa, Asia and Eastern Europe, Latin America, and small island developing States, on a range of approaches to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events , held in the course of 2012.

The technical paper:

* Describes eight types of slow onset events, as defined in the Cancun Adaptation Framework;
* Provides an overview on slow onset events and on approaches to address L&D associated with the adverse effects of slow onset climate change events;
* Identifies and analyses approaches to addressing L&D associated with slow onset events and takes into consideration the outcomes of the three regional expert meetings for Africa, Asia and Eastern Europe and Latin America and the expert meeting for small island developing States.

Slow onset events evolve gradually from incremental changes occurring over many years or from an increased frequency or intensity of recurring events, whereas a **rapid onset event** may be a single, discrete event that occurs in a matter of days or even hours.

Contents of the technical paper:

* Conceptual background of approaches to address L&D associated with slow onset events;
* Description of approaches for addressing L&D associated with slow onset events;
* Annex containing case studies of examples and lessons learned from regional expert meetings;
* Annex containing case studies on approaches to address L&D arising from slow onset events.

This synthesis summarises the document as contained in FCCC/TP/2012/7. Access full document here

KEY FINDINGS

The technical paper identifies possible approaches to address L&D associated with slow onset processes:

Slow onset event	*Approaches to address L&D associated with slow onset events*
Sea level rise	* Develop a lowland drainage system * Create vegetative buffers and setback areas * Map flood zones * Relocate homes/businesses currently in flood zones * Provide local communities with customized information on flood risks
Temperature increase	* Develop water conservation programmes * Develop protected areas for coral reefs * Develop crop varieties and other agronomical practices that increase the resilience of agriculture
Ocean acidification	* Develop shellfish mariculture facilities * Develop mobile marine protected areas * Develop fishing cooperatives * Develop social protection programmes
Glacial retreat	* Develop an early warning system to protect downstream settlements from floods * Artificially drain lakes at risk of outburst * Implement regional water management programmes * Implement water conservation and irrigation techniques
Salinization	* Remove excess salts from soils by installing a drainage systems * Reduce the salinization of coastal aquifers using techniques such as artificial recharge * Conduct research and development to introduce saline-tolerant crops
Land degradation and deforestation	* Implement erosion control programmes and soil conservation measures * Promote agroforestry to improve forest ecosystems * Avoid fragmentation and increase the connectivity of forests * Provide buffer zones around forested areas * Represent different forest types across environmental gradients * Maximize the size of forest management units * Actively manage insect pests in forests
Loss of biodiversity	* Create parks/reserves, protected areas and biodiversity corridors * Use species distribution models to project how the distribution of species of concern may change in response to changes in temperature and other climate variables * Conduct modelling of minimum viable population sizes
Desertification	* Protect soils by planting trees in dense perennial hedges to act as windbreaks * Implement drip irrigation * Develop an early warning system for drought * Develop strategies that allow pastoralists to move across borders temporarily as well as those that allow permanent resettlement