

*composition, resilience or productivity of natural and managed ecosystems or on the operation of a socio-economic systems or on human health and welfare.” (UNFCCC, 1992)*

This definition recognizes that ecosystems, socio-economic systems, health and welfare are all areas that may be impacted and anticipated to suffer adverse effects.

### 3.5 Catastrophic event

***Catastrophic event** - A climate-related event having sudden onset and widely distributed and large magnitude impacts on human or natural systems, such as historically rapid sea level rise or sudden shifts (over a decade or less) in atmospheric or oceanic circulation patterns. Such events have occurred in the past due to natural causes (Australian Greenhouse Office. 2003)*

### 3.6 Climate feedback

***Climate feedback** - The influence of a climate-related process on another that in turn influences the original process. For example, a positive climate feedback is an increase in temperature leading to a decrease in ice cover, which in turn leads to a decrease of reflected radiation (resulting in an increase in temperature). An example of a negative climate feedback is an increase in the Earth’s surface temperature, which may locally increase cloud cover, which may reduce the temperature of the surface. (IPCC TAR, 2001)*

### 3.7 Climate Change Scenario

***Climate Change Scenario** - A coherent and internally-consistent description of the change in climate by a certain time in the future, using a specific modelling technique and under specific assumptions about the growth of greenhouse gas and other emissions and about other factors that may influence climate in the future. (UKCIP, 2003)*

### 3.8 Climate impacts

***(Climate) Impacts** - Consequences of climate change on natural and human systems. Depending on the consideration of adaptation, one can distinguish between potential impacts and residual impacts. (IPCC TAR, 2001)*

- ***Potential Impacts**--All impacts that may occur given a projected change in climate, without considering adaptation.*
- ***Residual Impacts**--The impacts of climate change that would occur after adaptation.*

See also aggregate impacts, market impacts, and non-market impacts.

- ***Aggregate Impacts** - Total impacts summed up across sectors and/or regions. The aggregation of impacts requires knowledge of (or assumptions about) the relative importance of impacts in different sectors and regions. Measures of aggregate impacts include, for example, the total number of people affected, change in net primary productivity, number of systems undergoing change, or total economic costs.*
- ***Market Impacts** - Impacts that are linked to market transactions and directly affect gross domestic product (GDP, a country's national accounts)--for example, changes in the supply and price of agricultural goods.*

- **Non-Market Impacts** - Impacts that affect ecosystems or human welfare, but that are not directly linked to market transactions--for example, an increased risk of premature death.

### 3.9 Climate variability

**Climate Variability** - Climate variability refers to variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the climate on all temporal and spatial scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability). See also climate change. (IPCC TAR, 2001)

### 3.10 Impact assessment

**(Climate) Impact Assessment** – The practice of identifying and evaluating the detrimental and beneficial consequences of climate change on natural and human systems. (IPCC, TAR, 2001)

**Impact assessment** – The analysis of positive and negative consequences of climate changes on natural systems and human societies, both with and without adaptation to such changes. (Australian Greenhouse Office. 2003)

See also *Adaptation assessment*.

### 3.11 Integrated Assessment

**Integrated Assessment** - A method of analysis that combines results and models from the physical, biological, economic, and social sciences, and the interactions between these components, in a consistent framework to evaluate the status and the consequences of environmental change and the policy responses to it. (IPCC TAR, 2001)

**Integrated assessment** - A consistent framework to analyse models that simulate climate (including physical and biological conditions) and socioeconomic conditions (including policy and behaviour) and the interactions and feedbacks between them. This integration can be performed over a range of spatial scales, increasing in complexity from farms or cities, to regions, to countries to global (Australian Greenhouse Office. 2003)

### 3.12 Maladaptation

**Maladaptation** – Any changes in natural or human systems that inadvertently increase vulnerability to climatic stimuli; an adaptation that does not succeed in reducing vulnerability but increases it instead. (IPCC TAR, 2001)

### 3.13 National adaptation programme of action (NAPA)

**National adaptation programmes of action (NAPAs)** – Documents prepared by least developed countries (LDCs) identifying urgent and immediate activities useful for coping with climate change. The NAPAs are then presented to the international donor community for support. (UNFCCC Secretariat website)<sup>14</sup>.

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<sup>14</sup> <http://unfccc.int/adaptation/napas/items/2679.php>

### 3.14 Reinsurance

**Reinsurance** – *The transfer of a portion of primary insurance risks to a secondary tier of insurers (reinsurers); essentially "insurance for insurers."* (IPCC, TAR, 2001)

**Reinsurance** – *Insurance for insurers. As with insurance, the basic function of reinsurance is to spread risks; that is, part of the liability accepted by an insurer is transferred to the reinsurance company.* (Australian Greenhouse Office. 2003)

### 3.15 Risk

**Risk** - *Is the probability that a situation will produce harm under specified conditions. It is a combination of two factors: the probability that an adverse event will occur; and the consequences of the adverse event. Risk encompasses impacts on human and natural systems, and arises from exposure and hazard. Hazard is determined by whether a particular situation or event has the potential to cause harmful effects.* (Australian Greenhouse Office. 2003)

**Risk (climate-related)** – *Is the result of interaction of physically defined hazards with the properties of the exposed systems – i.e., their sensitivity or (social) vulnerability. Risk can also be considered as the combination of an event, its likelihood, and its consequences – i.e., risk equals the probability of climate hazard multiplied by a given system's vulnerability* (UNDP, 2005)

The term 'risk' is often used in the context of climate change. However, it has not yet been defined, either by the UNFCCC or by the IPCC.

### 3.16 Risk management

**Risk management** - *The implementation of strategies to avoid unacceptable consequences. In the context of climate change adaptation and mitigation are the two broad categories of action that might be taken to avoid unacceptable consequences.* (Australian Greenhouse Office. 2003)

**Integrated Risk Assessment** - *An approach to the management of risk that includes all sources of hazard, pathways and receptors, and considers a wide combination of risk management options.* (UKCIP, 2003)

### 3.17 Robustness

**Robustness** – *The ability of a system to continue to perform satisfactorily under load.* (UKCIP, 2003)

### 3.18 Stimuli (climate-related)

**Stimuli** - *All the elements of climate change, including mean climate characteristics, climate variability, and the frequency and magnitude of extremes.* (IPCC TAR, 2001)

### 3.19 Strategy

**Strategy** – *Refers to a broad plan of action that is implemented through policies and measures. A **climate change adaptation strategy** for a country refers to a general plan of action for addressing the impacts of climate change, including climate variability and extremes. It may include a mix of policies and measures, selected to meet the overarching objective of reducing the country's vulnerability.* (UNDP, 2005)

## 4. Conclusions

The analysis of various definitions of the key adaptation terms and concepts demonstrates that definitions vary across institutions and different groups of stakeholders. The lack of precision is a reflection of a highly dynamic discussion of the adaptation issue where the lexicon is still evolving and the relatively young age of these discussions. Once adaptation enters wider circles of policy makers and analytical community it may need to be handled with more care and accuracy.

As work on adaptation to climate change progresses, a need for greater precision is likely to become more apparent, as will the implications of various terms. Terms that have policy implications may warrant special attention in the review of the Fourth Assessment report (AR4) of the IPCC.

Some terms and concepts are not defined either by the IPCC or the UNFCCC. If deemed necessary a cooperative effort between the UNFCCC and IPCC could aim to clarify such terms and concepts. For example, the following terms are not yet defined by the IPCC: adaptation policies and measures, adaptation goals and/or objectives, adaptation technologies, coping capacity, adverse effect, disaster, risk, and mainstreaming.

Some existing definitions are very loose, and inevitably generate different interpretations. While creative ambiguity may be appropriate for some, others may have policy implications in the future. For example, such terms as ‘adaptation’, ‘adaptation assessment’, and ‘resilience’ might benefit from further clarification. Also, in some cases precise definitions may not be desirable until more information is available, for example, the definition of ‘adaptation baseline’.

In the interim, it would be helpful if the adaptation community used either the existing definitions provided by the IPCC or, in some cases, those provided by the UNFCCC, rather than invent new definitions.

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