



Sensitivity and Adaptive/ Coping Capacities

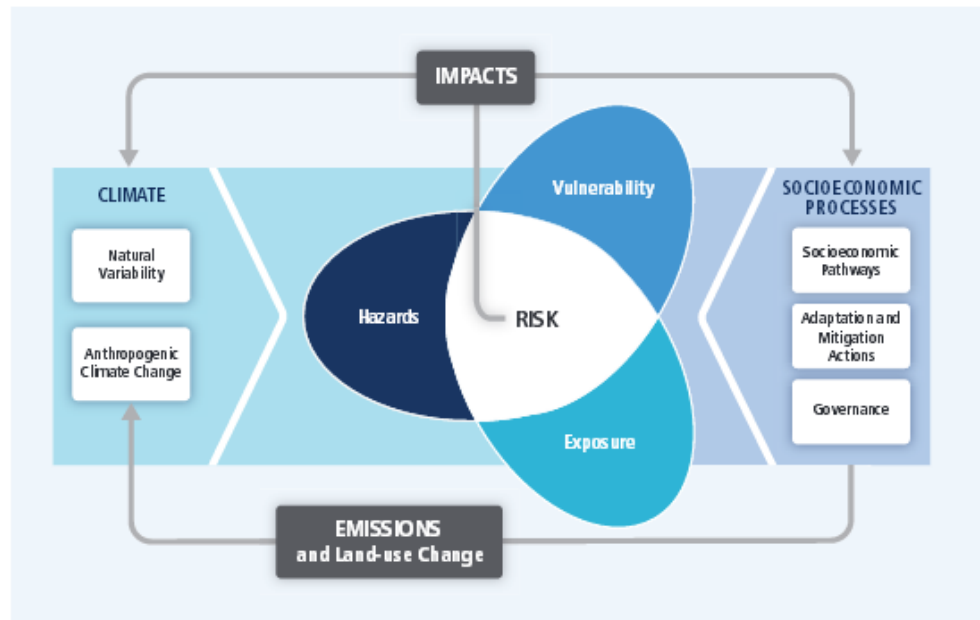
Developing Impact Chains

Workshop II

June 27th, Bangkok

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IPCC AR5 Risk Concept (2014)



Vulnerability:

The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements **including sensitivity or susceptibility to harm** and **lack of capacity to cope and adapt.** (IPCC 2014)



- **Vulnerability can be divided into two components:**

SENSITIVITY: WHAT IS THE PROBLEM? WHAT IS THE DEGREE OF THE PROBLEM (-)

- Description of the status quo of biological/biophysical, social, economic and cultural/societal characteristics of a system that show susceptibility/ vulnerability towards climate change

ADAPTIVE/ COPING CAPACITIES: WHAT DO WE HAVE? (+); WHAT DO WE NEED?

- The whole of capabilities, resources and institutions of a country, region, or sector allowing to implement effective adaptation measures
- Positive coping strategies already identified and/ or applied by different social groups or relevant stakeholders that will positively influence the system in order to adapt to the changing context
- Adaptive capacities aim at building resilience on the long term (looking at climate changes), but coping capacities are actions that communities adopt to confront climate change impacts in the short term (weather changes).

Definitions Sensitivity and Adaptive Capacity

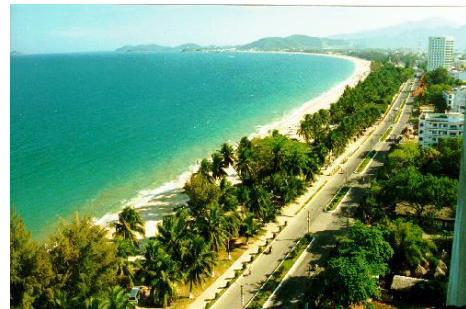


SENSITIVITY:

WHAT IS THE PROBLEM? WHAT IS THE DEGREE OF THE PROBLEM? (-)

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Some examples



SENSITIVITY (some examples)

- Biological characteristics (e.g. endangered species):
more or *less* threatened by extinction



SENSITIVITY (some examples)

- Biophysical characteristics (e.g. *long* coastlines, *strong* currents, *steep* slopes, risk-*prone* areas)



SENSITIVITY (some examples)

- Social characteristics (e.g. age, health, education; but mostly around nutrition status, income levels): *more* or *less* strong



SENSITIVITY (some examples)

- Economic characteristics / assets (e.g. *more* or *less* resilient infrastructure, which depends on characteristics such as construction material etc.)



- **BUT:** Can be an exposed element also! (e.g. impact chain “Water”)

SENSITIVITY (some examples)

- Cultural/societal characteristics (e.g. water **demand** in water-related traditions)



ADAPTIVE/ COPING CAPACITIES:

WHAT DO WE HAVE?; WHAT DO WE NEED? (+)

- The whole of capabilities, resources and institutions of a country, region, or sector allowing to implement effective adaptation measures





ADAPTIVE/ COPING CAPACITIES (some examples)

- **Knowledge:** Potential broadening of adaptation options (e.g. *deeper* knowledge on climate smart agriculture, disaster risk management and prevention,)
- **Technology:** Potential positive impact (e.g. *better* irrigation infrastructure, weather forecast systems, improved seed availability)
- **Institutions:** Potential increase of coordination and effectiveness (e.g. *improved* farmers networking, law enforcement, NP management, IWRM)
- **Economy:** Potential enhancement of options and more security (e.g. *enhanced* economic diversification, *more* insurances)



DISCUSSION

QUESTIONS & ANSWERS



Sensitivity Factors

- Which **factors** show the sensitivity of the exposed factors (biological/biophysical, social, economic and cultural/societal characteristics)?

Coping and Adaptive Capacities

- Which stakeholders have to be included in the adaptation process?
- Could you think of any pilot areas in your sector to start with in regards to adaptation measures?
- How can the inclusion of community level, district level and national level be assured?
- Adaptive Capacities:
 - **Knowledge:** Which institution can provide most valuable knowledge and expertise in your sector? Which data and/or knowledge is missing?
 - **Technology:** Are there technical options available and affordable?
 - **Institutions:** How does the institutional environment contribute to the adaptive capacity of your sector?
 - **Economy:** Which economic and financial resources are available? What role does the private sector play?