# How to Deal with the Adaptation Deficit

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## Adaptation Definition

- Adaptation: "Adjustment in natural or human systems in response to actual or expected climate stimuli or their effects, which moderates harm or exploits beneficial opportunities." IPCC 2001
- Does this definition suffice today 20 years later?
- Various types of adaptation can be distinguished ......

# Adaptation Types

- Anticipatory adaptation
- Autonomous adaptation
- Planned adaptation
- Private adaptation
- Public adaptation
- Reactive adaptation.
- Maladaptation.

SEE ALSO.

Adaptation assessment

Adaptation benefits and costs

Adaptive capacity.

And what about Resilience?

# Adaptive Capacity for What?

- Definition:
- Adaptive Capacity. "The ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences". IPCC 2001.
- Do systems adapt? What are systemic failures? (sexual, racial, cultural/religious, climate system?)
- What is system adaptability? Whose adaptability? Whose responsibility?
- What is systemic adaptation vs. specific or incremental adaptation?

# The Long-term Deficit

- The losses from climate variability and extremes have been increasing long before the arrival of current anthropogenic climate change.
- The increase in losses is more than might be expected due to increases in population and economic growth. The deficit has been increasing due to growth in exposure and vulnerability. As a proportion of GDP? Why is it increasing at all?
- The losses result not so much from natural or anthropogenic climate change and variability, but from human choices and decisions.
- What choices and what decisions, and who or what is responsible?
- Climate change is a "common but differentiated responsibility" (UNFCCC 1992). Disaster losses are not a responsibility but a "common concern" (Sendai Framework. 2015)
- It is not just Disaster Risk Reduction, but Disaster Risk Creation.

## Adaptation Dimensions, Where to Adapt?

- Adapt to different hazards; (floods, droughts, heat waves, tropical cyclones, wildfires, ice storms, permafrost melt, hailstorms, tornadoes, pest infestations, etc). Say 10 of them
- Adapt in different sectors; (agriculture, livestock, infrastructure, health, manufacturing industry, extractive industry, finance and investment, trade and tariffs, migration and relocation. Say 10 of them. So 10 x 10 = 100 adaptation "cells". Both public and private sectors.
- Adapt by locations; (local, regional, continental, global). Say 5 of them. So 100 x 5 = 500
- Adapt by level of government or jurisdiction; (community, municipal, provincial, national, regional (EU, USMCA...), global. Say 5 of them. So 500 x 5 = 2,500.

## An Example; Adaptation to Floods

- Flood control; dams, dykes, levees,
- Land use regulation no more buildings below the 100 year flood,
- Building codes and standards, flood proofing.
- Permanent removal and relocation retreat
- Improve forecasting and warnings.
- Temporary evacuation plans.
- Flood insurance private and public,
- Do nothing bear the costs.

#### Incremental Adaptation.

- Try to address the adaptation deficit in each of these 2,500 cells.
- Apply the principle of Subsidiarity. Article 5 of the Treaty of Maastricht, European Union 1992.) Centralized and higher order government structures should only take action if deemed more effective or necessary than action at local levels. This strengthens accountability and reduces the dangers of making decisions in places remote from their place of application.
- Provide financial support and technical assistance to the poorer and least developed countries which have least capacity to adapt.

#### Systemic Adaptation

• Responsibility versus Concern.

The UNFCCC, Framework Convention on Climate Change (Rio 1992) recognizes that, "The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their Common but Differentiated Responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combatting climate change and the adverse effects thereof. Article 3 Section 1.

The Sendai Framework for Disaster Risk Reduction (2015) recognizes that disasters are a "common concern" but not a common responsibility.

The UNFCCC also states; "The developed country Parties and other developed Parties included in Annex II shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to these adverse effects." Article 4.1

# The Case of Canada.

- A National Adaptation Strategy?
- Role of Provinces and Territories?
- Municipalities.
- Whose jurisdiction?
- Who pays? Cost sharing?
- A chaotic mosaic. No structure. No coordination.
- Another CACOR presentation on Adaptation in Canada?

## What the Convention Says.

- UNFCCC. 1992 Article 2. Objective.
- "The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of he Convention, stabilization of greenhouse gas concentrations n the atmosphere at a level that would prevent dangerous anthropogenic interference with the cimate system. Such a level should b achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner".
- The Convention gives much more attention to mitigation than to adaptation. Sometimes adaptation has been disparaged because to argue for the need to develop and promote adaptation can be interpreted as a potential failure of mitigation.

Do "we" have the capacity to deal with the adaptation deficit.

- It requires incremental adaptation in 2,500 cells.
- It requires systemic adaptation. Adaptation of systems...?
- We do have the theoretical capacity. We know a lot of what has to be done ... but not everything.
- It seems we do not have the practical capacity., including the will and the motivation.

## Transformation?

- Incremental change will not be sufficient. It cannot work by itself.
- Transformation? For climate change; and for sexual, racial and religious systems?
- Revise the UNFCCC. Change its modus operandum.
- Remove the false dichotomy of mitigation and adaptation.
- Mitigation benefits are shared globally. Adaptation benefits fall where the adaptation is made. So why should Canada mitigate when others are not doing? The global tragedy of the commons.

Proposal and suggestions please!

#### Mes Amis.

Pour ce qui est de l'avenir, il ne s'agit pas de le prevoir mais de le rendre possible.

- Antoine de Saint-Exupery.
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## Glasgow COP 26.

- The 26<sup>th</sup> Conference of the Parties meets in Glasgow October 30<sup>th</sup> to November 12<sup>th</sup>.
- What needs to be done?
- More international money for adaptation?
- Global strategies e.g. for agriculture (FAO?) / health (WMO? / etc.
- What can and will be done?
- What about a revisit to Limits to Growth? What should we say now?
- I am happy to report back!