



# **A conceptual framework for developing adaptation indicators**

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# Purpose of adaptation indicators


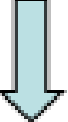

## Primary purpose:

- **To monitor implementation & effectiveness of adaptation policies, measures & actions**

Can also be used to:

- Justify, target & monitor funding for adaptation
- Mainstream adaptation within & between sectors
- Communicate adaptation to policy & decision-makers & other stakeholders
- Compare adaptation achievements across sectors, regions & countries
- Inform international climate change negotiations

# Conceptual framework for adaptation indicators

			Process-based indicators		Outcome-based indicators
Planned adaptation to climate change impacts		Building adaptive capacity	Development of adaptation policies (e.g. preparation of catchment-specific flood management policies/plans)		
					
		Delivering adaptation actions	Implementation of adaptation measures (e.g. construction of flood protection schemes)		Effectiveness of adaptation actions (e.g. reduction in economic losses due to floods)

# Process and outcome-based indicators

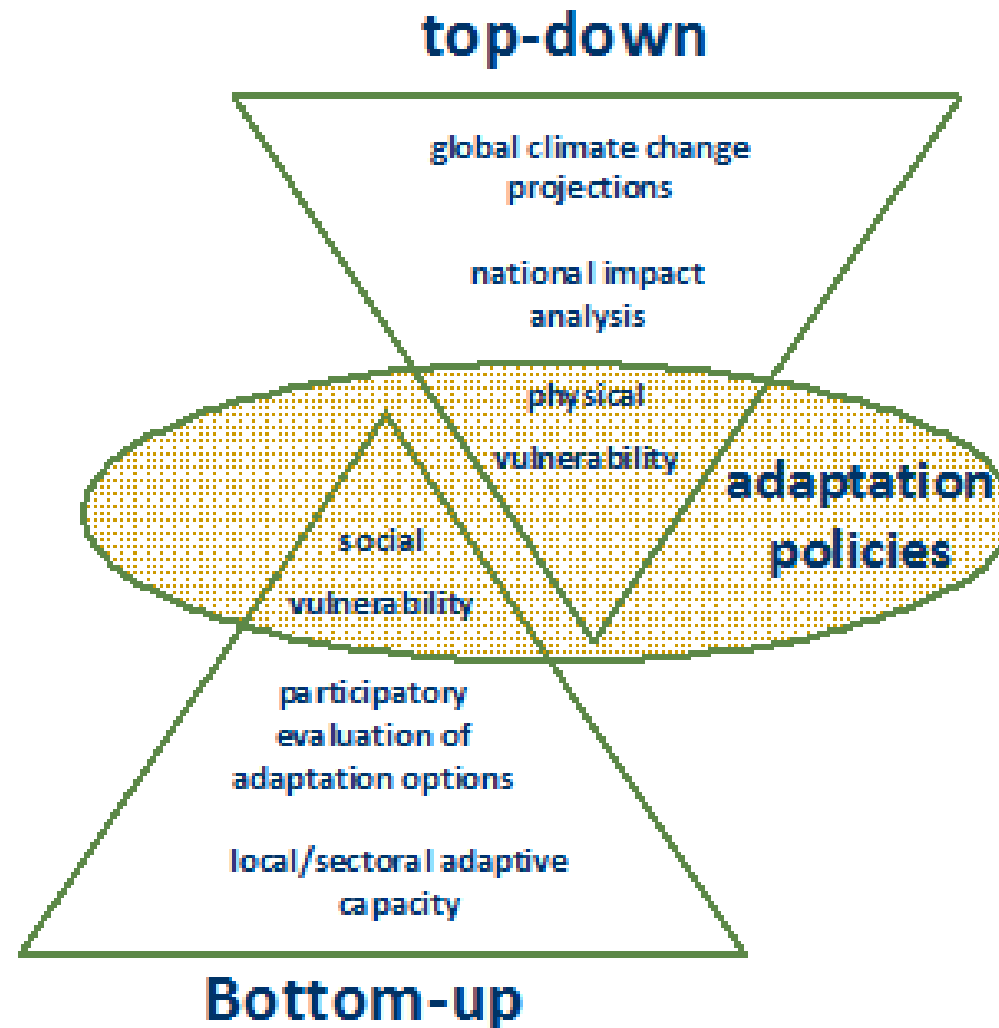
## Process-based indicators:

- Seek to monitor key stages that lead to choices about end points or outcomes & should inform & justify decisions

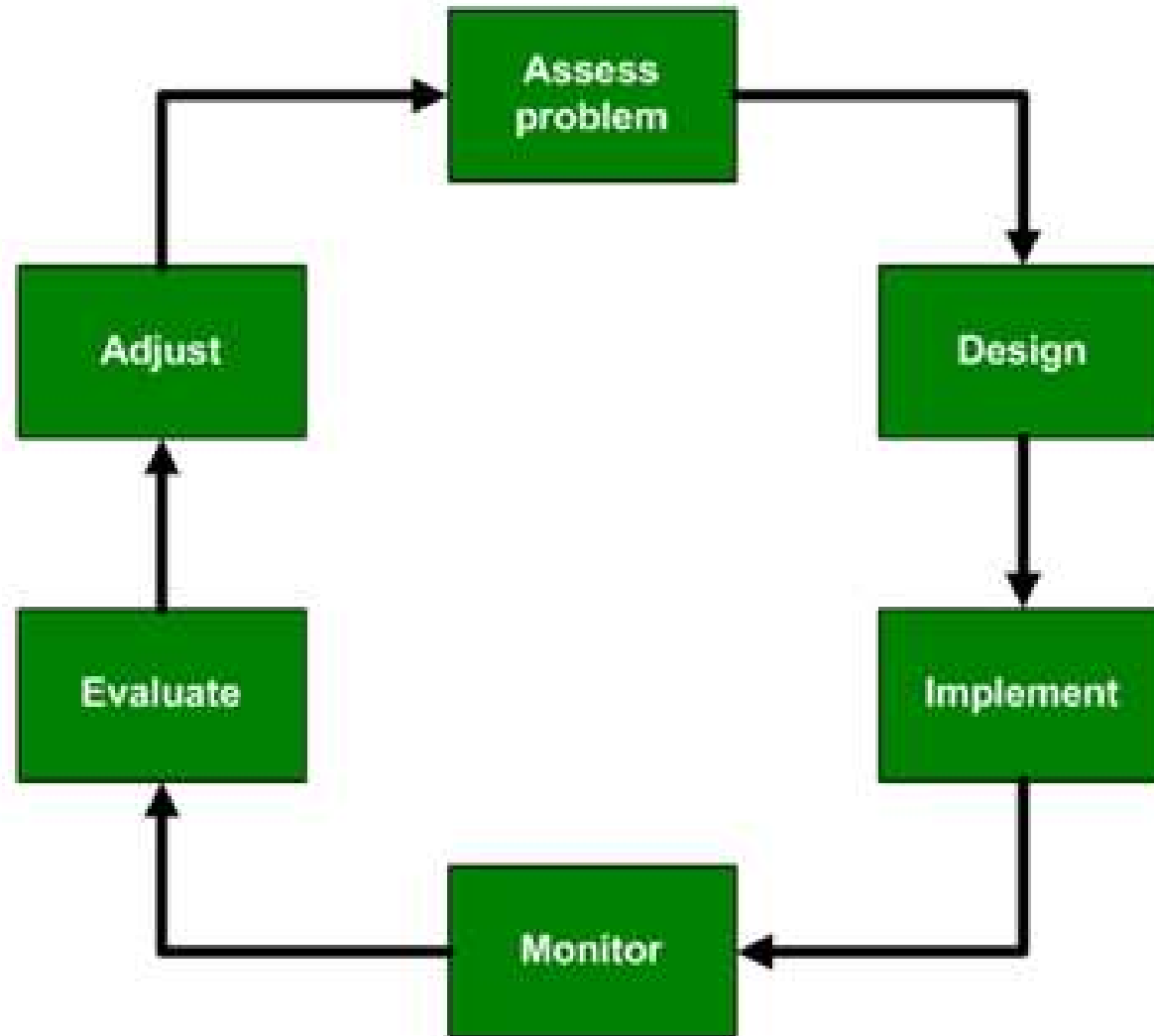
## Outcome-based indicators:

- Seek to monitor explicit end points or outcomes & should focus on long term effectiveness of decisions

# Building adaptive capacity – process-based indicators



## Delivering adaptation actions – adaptive management indicators



# Regional strategies: case studies

## Common aims:

- **Improve knowledge of climate change impacts**
- **Identify possible sector & area-specific adaptation options**
- **Increase adaptive capacity of sectors & areas**
- **Facilitate, coordinate & encourage participation in delivery of adaptation actions**

## Examples of process and outcome-based indicators

<b>Sector</b>	<b>Building adaptive capacity: process-based indicators</b>
<b>Agriculture</b>	Research into farming techniques that accommodate climate change
<b>Biodiversity</b>	Integration of adaptation into conservation management plans
<b>Health</b>	Establishment of coordinating authorities & networks
<b>Water</b>	Development of flood management policies/plans
	<b>Delivering adaptation actions: process-based indicators</b>
<b>Agriculture</b>	Introduction of drought & heat resistant crops
<b>Biodiversity</b>	Extension, connection & establishment of buffer zones around protected areas
<b>Health</b>	Provision of climate control equipment for vulnerable people
<b>Water</b>	Construction of flood protection schemes
	<b>Delivering adaptation actions: outcome-based indicators</b>
<b>Agriculture</b>	Increase in crop yields
<b>Biodiversity</b>	Reduction in degraded ecosystems
<b>Health</b>	Reduction in deaths during heat waves
<b>Water</b>	Reduction in losses due to floods



# Biodiversity policy area: case study

## Bern Convention's seven overarching adaptation principles:

- Take action now
- Maintain & increase ecosystem resilience
- Accommodate impacts of climate change
- Facilitate knowledge transfer & action between partners, sectors & countries
- Develop knowledge/evidence base & plan strategically
- Use adaptive conservation management
- Undertake monitoring & identify indicators

# Examples of process and outcome-based indicators

<b>Building adaptive capacity: process-based indicators</b>
Amendment of biodiversity policy, legislation and agreements to reflect climate change
Integration of adaptation into sector/cross-sector plans at national to local levels
Exchange of information and communication of best practice on successful adaptation
<b>Delivering adaptation actions: process-based indicators</b>
Assessment of species and habitat vulnerability
Implementation of measures to protect vulnerable species and habitats
Evaluation of progress through the adaptive management cycle
<b>Delivering adaptation actions: outcome-based indicators</b>
Reduction in other sources of stress and harm
Establishment of buffer zones around conservation areas
Establishment of networks of interconnected protected areas and intervening habitat

# References and contact details

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