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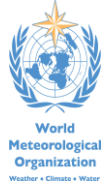
# Appraising Adaptation Options

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**NAP Expo**  
**Seoul, Korea**  
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United Nations  
Framework Convention on  
Climate Change



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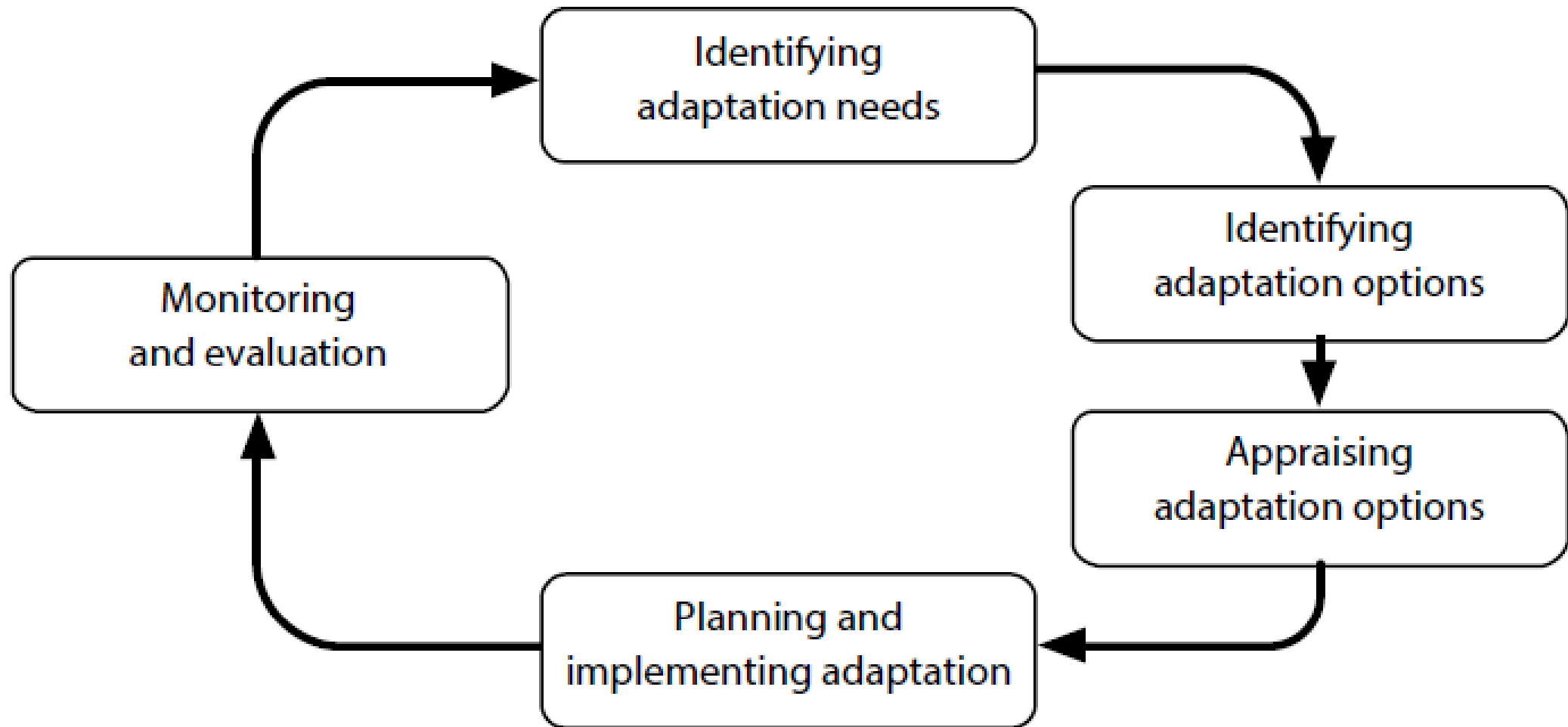
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# Overview

- Adaptation learning cycle – appraisal
- What do we mean by appraisal of adaptation options?
- Why do we need to prioritize?
- Types of appraisal approaches
- What criteria defines prioritization?
- What tools can be used to prioritize adaptation options?

# Adaptation Learning Cycle





# What do we mean?

- It refers to the process of selecting (prioritizing!) the most appropriate or relevant adaptation strategies, taking into consideration a set of criteria that is previously defined (e.g. national development goals).
- The selection process needs to take into consideration climate vulnerability assessments – which will help identify where (region, sector, communities) climate impacts are likely to be most severe.



# Why do we need to prioritize?

- Because resources (financial, capacity, time, etc) are limited.
  - Not all adaptation options can be implemented!
- Prioritization allows to use limited resources more efficiently, making sure they reach where they are most needed.
- Agreed criteria helps prioritization and avoid disagreement on outcomes.
- It look into the **cost and benefits** of each option.



# What are different types of adaptation options?

- Adaptation options include a combination of:
  - Policy and Governance Frameworks
  - Field actions/project on the ground
  - Capacity building
- Examples of adaptation options to climate change:
  - Incorporate hard infrastructure to help people adapt to adverse effects of climate change – “HARD” ADAPTATION
  - Use options that rely on biodiversity and ecosystem services as part of the adaptation strategy – ECOSYSTEM BASED ADAPTATION
  - A combination of both – hard and EbA adaptation – HYBRID OPTIONS

# Entry Point and Types of Approaches

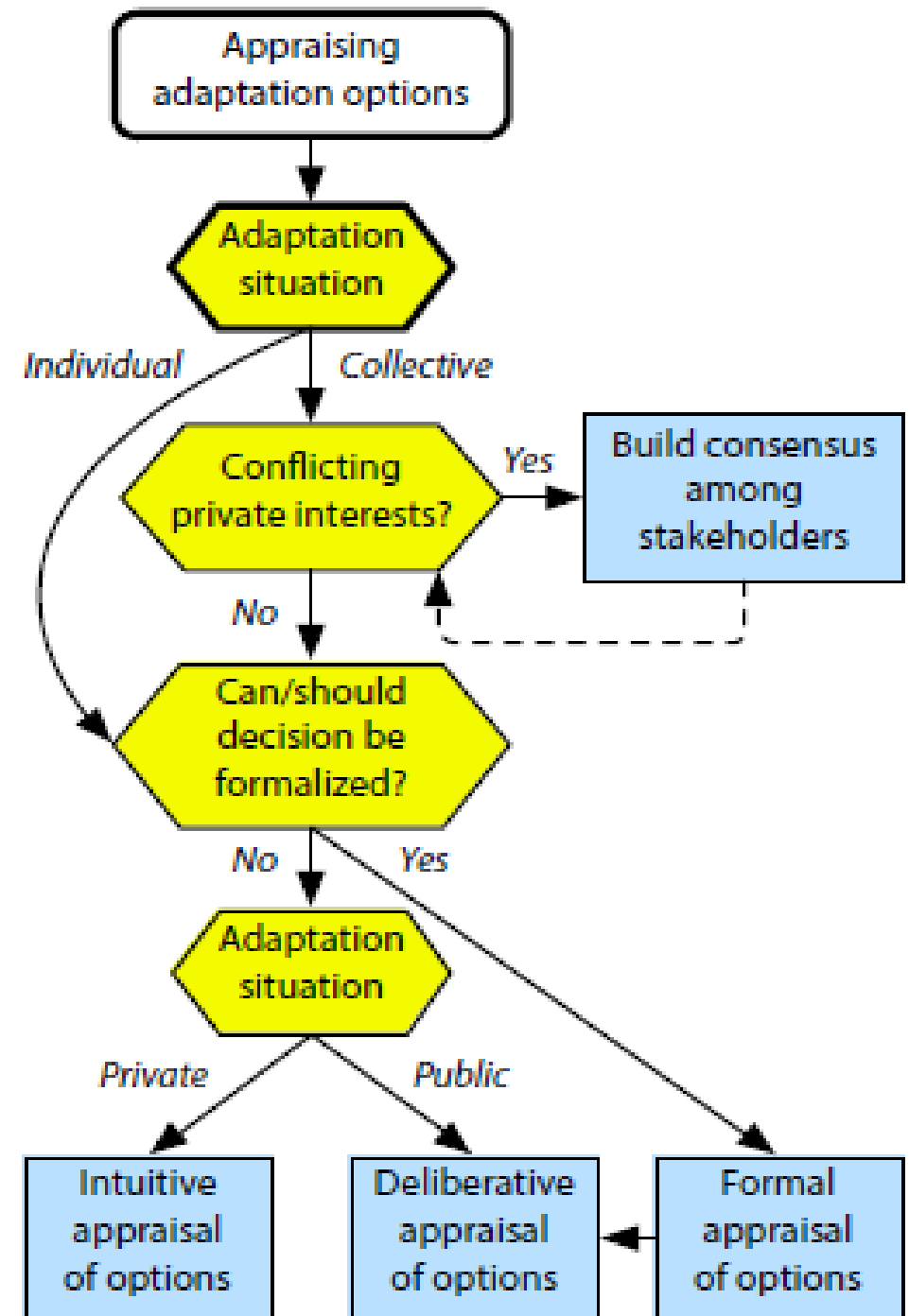
## Entry point

### Adaptation situation:

- A specific adaptation problem or decision has been identified.
- A set of adaptation options has been identified.

### This is what you want to do

- You want to appraise the options and choose the best.



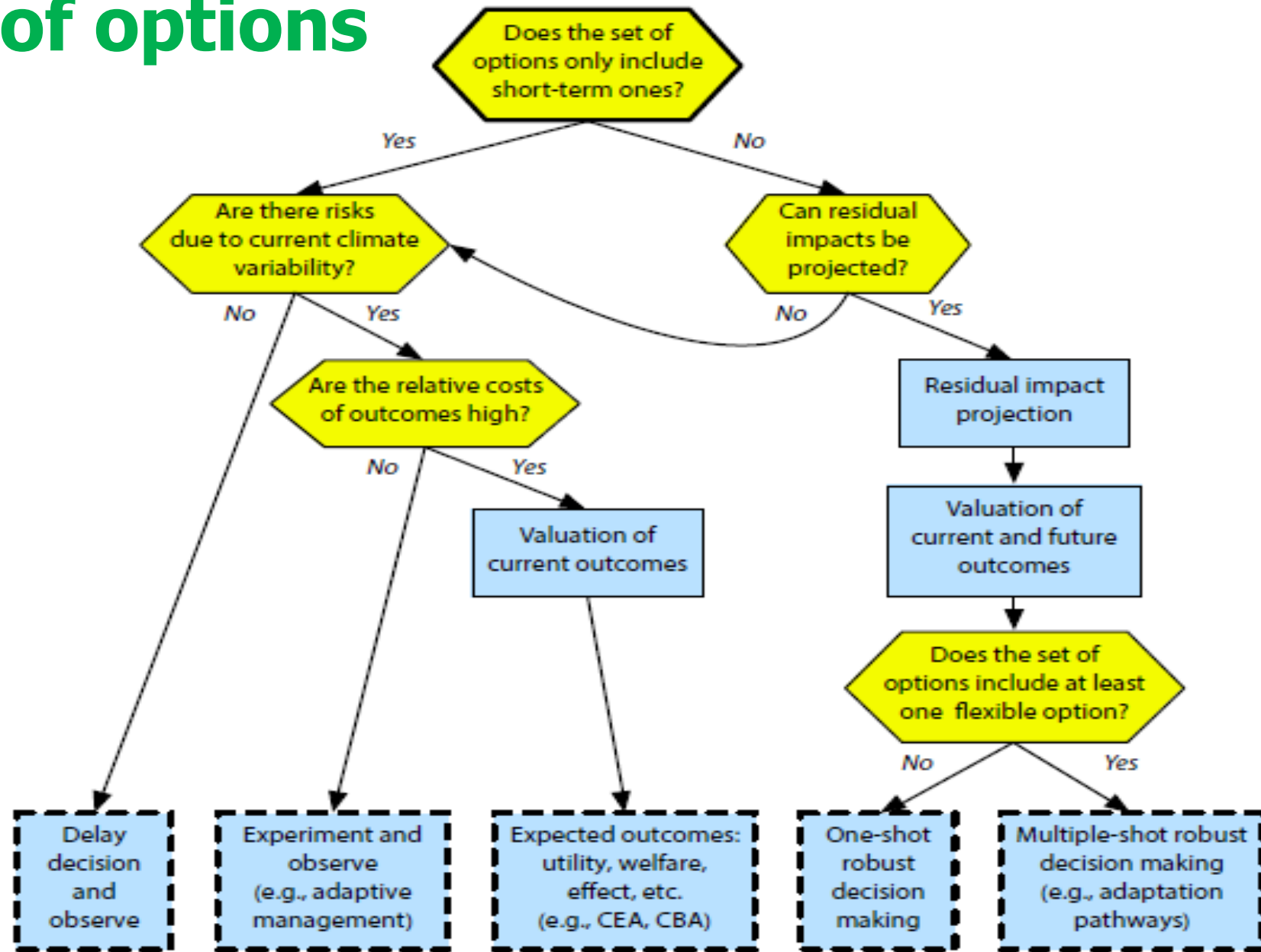
# Criteria relevant to selecting formal or informal methods for appraising options

Empirical criteria	Formal appraisal	Intuitive/ deliberative appraisal
Ambiguity on options, outcomes and baselines)	Low	High
Interconnectedness of decisions	Low	High
Information gathering and processing costs	Low	High
Importance of money in decision	High	Low
Experience on similar decisions with immediate feedback.	Low	High

Source:  
PROVIA  
Guidance,  
2013



# Choosing approaches for formal appraisal of options



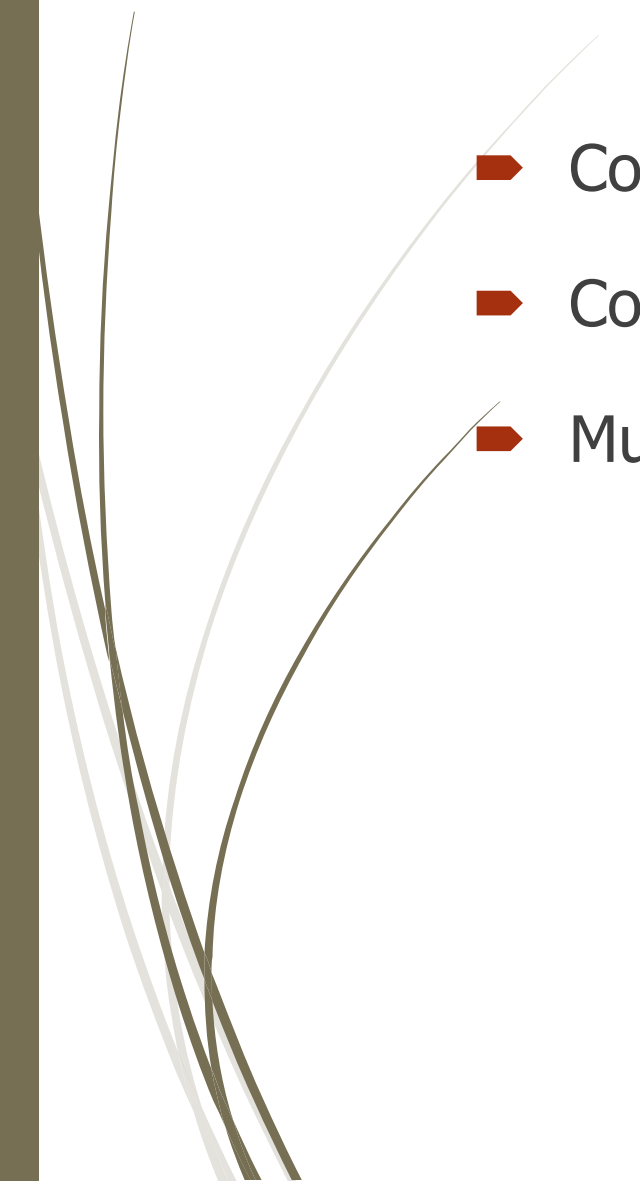


# Criteria to consider:

- Timing/urgency for action
- Cost
- Co-benefits
- Efficacy
- Flexibility or robustness
- Contributions to poverty reduction
- Contributions to national development goals
- Social and political acceptance
- Economic, social, technological and environmental feasibility



# Main tools for prioritization

- Cost-benefit Analysis (CBA)
  - Cost-efficiency Analysis (CEA)
  - Multi-criteria Analysis (MCA)
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# Cost-benefit Analysis (CBA)

- ❑ Popular tool
- ❑ Implies calculating all the cost and benefits of adaptation options in monetary terms.

<b>Advantages</b>	<b>Limitations</b>
Informs on economic viability of an adaptation option	Not all costs and benefits have a monetary value - How much is worth protecting an ecosystem? VS How much cost erosion control measures?
Allows for prioritisation between alternative adaptation options in monetary terms	



# Cost and Benefit Analysis (CBA) initial considerations

- Not all costs and benefits have a monetary value
  - How much is worth protecting an ecosystem? vs How much cost erosion control measures?
- Who makes the decisions on what are the COSTS and the BENEFITS?
- Availability of all information/data that require to carry out a reliable analysis?
- How to take into account uncertainty?
- At the end, CBA should be just a tool for decision-making.

# Main stages of CBA Analysis

1. Identify potential benefits of different options
2. Consider level of protection different options provide
3. Assess the economic value of benefits and costs
4. Calculate overall net present value (NPV)
5. Combining economic cost-benefit analysis with the other appraisal criteria

For more information on Coastal EbA:

<http://www.unep.org/coastal-eba/content/cost-benefit-analysis-adaptation-options>

# Cost-efficiency Analysis (CEA)

- Implies a cost analysis of alternative adaptation options that achieve the same objective and selects the one with the least costly option.
- Useful alternative to CBA where benefits cannot be defined in monetary terms

Advantages	Limitations
Gives information on how an objective can be achieved in the most cost-efficient way	Measurable objective required
	Costs need to be defined in monetary terms

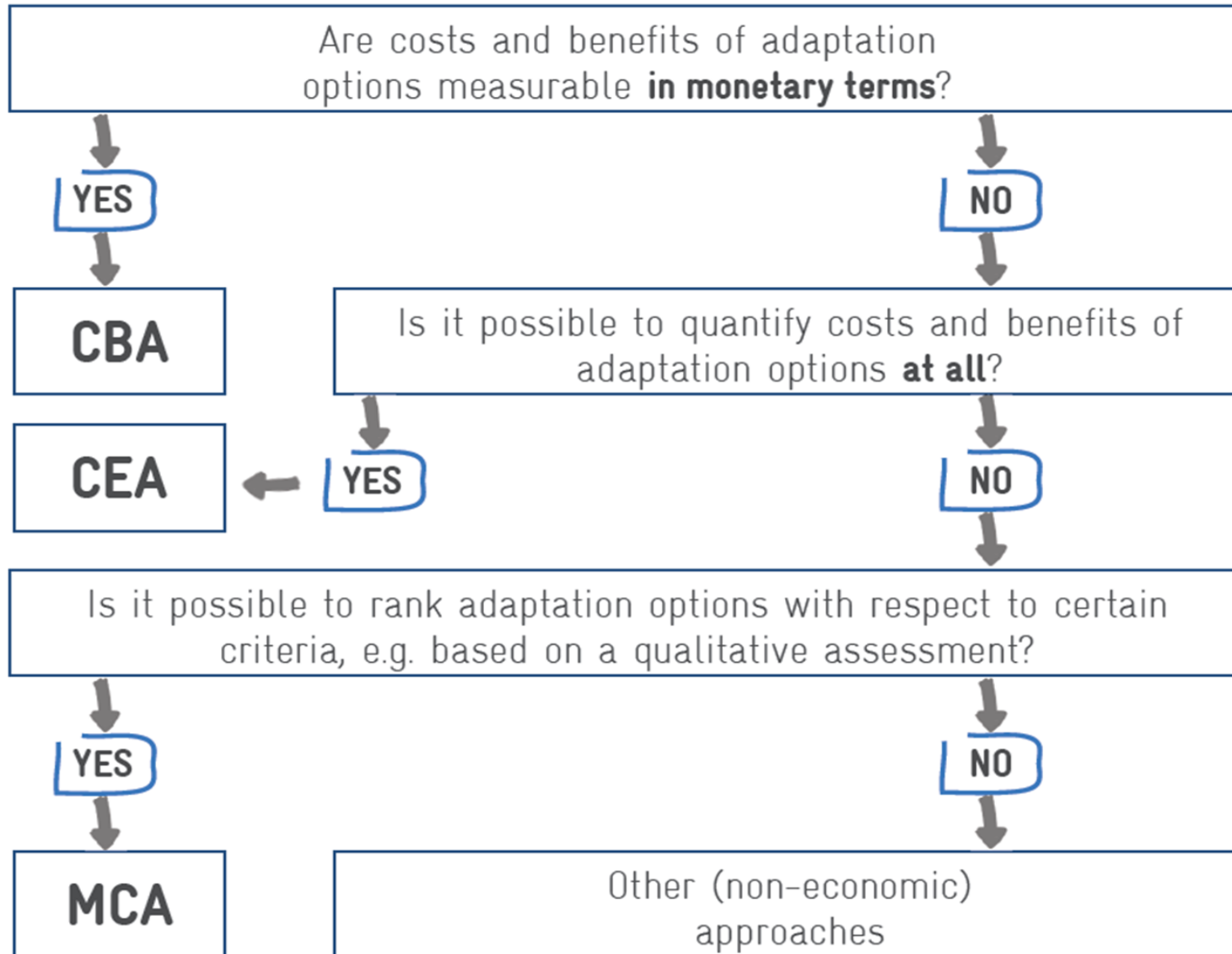
# Multi-criteria Analysis (MCA)

- Implies ranking and prioritizing multiple adaptation options.
- The ranking takes into consideration other qualitative assessment criteria (not monetary costs)

Advantages	Limitations
MCA allows for prioritization and helps identify trade-offs and win-win situations	MCA is more subjective than other methods
<ul style="list-style-type: none"><li>➤ Need to find a common indicator (e.g. scores)<ul style="list-style-type: none"><li>➤ scores can be calculated (if quantitative judgment is available)</li><li>➤ or be obtained via expert consultation</li></ul></li></ul>	MCA tells nothing about economic efficiency



# Selecting a method for assessing adaptation options



CBA = Cost-benefit Analysis

CEA = Cost effectiveness Analysis

MCA = Multi-criteria Analysis

Source: From GIZ and NAPGSP Training Modules)



**Further information on NAP-GSP**  
<http://globalsupportprogramme.org/nap-gsp>

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