

ON KNOWLEDGE: 8

Prioritising climate change adaptation actions

The need for prioritisation

Climate change adaptation is the process of adjusting to different circumstances or conditions resulting from a changing climate. It involves predicting the adverse effects of climate change, acting to prevent or minimise damage, and also taking advantage of opportunities arising from adaptation actions. Examples of adaptation measures are building flood defences or restoring wetlands to protect against flooding, using scarce water resources more efficiently, adapting building codes to anticipate extreme weather events, and planting crop or tree species that are less vulnerable to droughts or storms.

Prioritising between different climate change adaptation options is part of a wider decision-making process, which starts with screening climate risks to define the problem and concludes with monitoring of the implemented adaptation measures (see Figure 1). The prioritisation stage occurs after the identification of all possible adaptation options and before the implementation of the selected options.

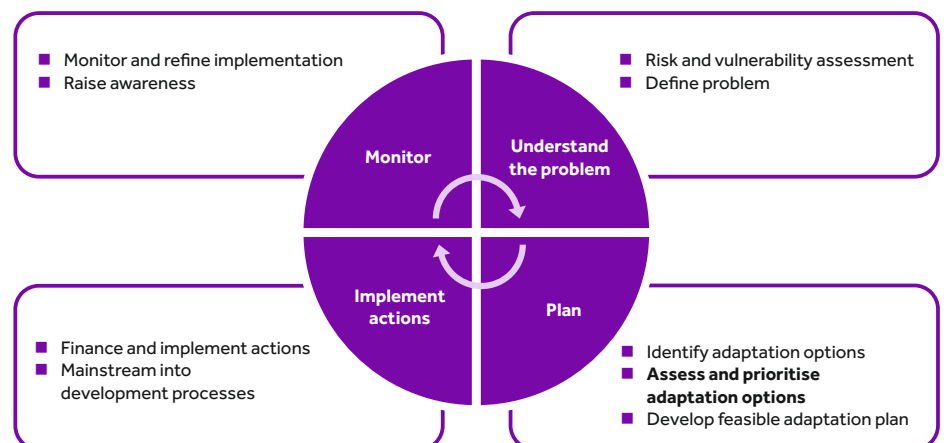


Figure 1: The overall climate adaptation planning process

This briefing looks at the prioritisation of climate change adaptation options. This is a crucial step in the planning cycle, but one that is often given insufficient importance. As a result, the adaptation actions which are ultimately prioritised for implementation are often not the most effective or the most feasible.

There are a number of tools and methodologies available for assessing adaptation options, though these require various levels of capacity to be used effectively. ACT is therefore helping national and regional governments in South Asia to prioritise and implement appropriate adaptation actions.

About the series

The ACT on knowledge series focuses on key emerging issues related to climate change and how they affect South Asia. Each leaflet synthesises existing knowledge on a topic and aims to stimulate discussion. Suggestions for further reading are provided at the end. Please see the full list of topics at www.actiononclimate.today

South Asian governments have adopted a number of strategies, policies and plans on adaptation to climate change. For instance, in India, state governments are finalising, or have adopted, State Action Plans on Climate Change (SAPCC), which include long lists of proposed adaptation actions. Given governments' limited resources and capacities, it is not feasible to implement all such actions. Prioritisation is, therefore, a key step for identifying feasible and realistic adaptation measures from these long lists ('wish lists') of possible actions. Different adaptation actions vary considerably in cost and in their environmental and social impacts. So, making the right choice is important on a number of levels. However, the prioritisation process is often missing or insufficiently applied in climate change action planning.¹

Different approaches

Prioritisation involves assessing a range of adaptation options, based on an agreed and consistent set of criteria. These usually involve the effectiveness, feasibility and cost of adaptation options, in addition to a range of locally-specific criteria.²

There are a range of tools and approaches that can be used to prioritise adaptation options. These are usually based around the principles of 'costs' and 'benefits', but they differ in terms of what evidence they use and how qualitative or quantitative they are.³ Two of the most commonly used economic methods for selecting between adaptation options are Cost-Benefit Analysis and Multi-Criteria Analysis.

Cost-Benefit Analysis (CBA)

This approach focuses on a quantitative evaluation of the impacts and net benefits of different adaptation options. Several stages are followed during CBA. A project (adaptation option) is defined and its economically-important impacts identified, the positive and negative impacts of the project's implementation are monetarised, and a sensitivity analysis predicts its efficiency once operational. Potentially worthwhile options are selected where benefits exceed costs. These are then subject to a ranking process, to establish an order of preference for implementation (e.g. see Box 1).⁴

Multi-Criteria Approach (MCA)

An MCA enables both qualitative and quantitative data to be used when ranking adaptation options, so that monetary and non-monetary criteria can be directly compared using the same weighting system. This brings greater flexibility and a wider range of criteria into consideration, which is especially useful where data gaps occur, but there is a risk of it becoming overly subjective compared to quantitative approaches.⁶ The MCAs can be used as a complementary tool to support cost-benefit analysis.⁷ The Government of Karnataka, for example, used an MCA to analyse climate action and green economic opportunities (see Box 2).⁸

Box 1: Prioritising adaptation measures in the Philippines

A case study by the Climate Service Center (CSC) used a Cost-Benefit Analysis (CBA) to prioritise climate change adaptation actions for the water sector in the Philippines. The measures assessed were based on five projects already implemented in the Spanish Mediterranean region, involving measures such as reclaimed water re-use, emergency wells and awareness-raising. The ranking process for the selected measures took into account profitability, initial investment, environmental externality costs and benefits, and social externality costs. The authors stressed the importance of measuring external costs and benefits, and putting monetary values on important environmental and social externalities (for example, water gains and losses, CO₂ equivalent emissions and pollution savings).⁵

Box 2: Identifying opportunities for green growth in Karnataka

The SAPCC for the State of Karnataka, India, identified over 200 actions for enhancing climate resilience and mitigation efforts. The government's sector plans and policy documents were used to help identify criteria to guide the prioritisation of these. The criteria included were grouped into two broad categories – green growth benefits beyond climate mitigation and adaptation, such as energy security, job creation, pollution reduction and water availability, and the financial attractiveness of greening opportunities in terms of investment and payback period. These criteria were evaluated using a Multi-Criteria Analysis (MCA) framework to prioritise opportunities for further analysis. The results helped create a green economic strategy for the State.

ACT's approach to prioritisation

ACT is using a number of different tools and approaches for prioritising adaptation actions. These are used for a number of purposes. For example, to help national and sub-national governments plan climate change adaptation actions and to mainstream climate change considerations into other policy areas.

Long-range planning exercise

The climate adaptation needs of governments in South Asia are considerable. Therefore, with its limited resources, ACT

¹ Dubash and Jogesh (2014), pp. 13–16.

² USAID (2014), pp. 20–23.

³ Willows and Connell (2003), pp. 4–6.

⁴ Máñez and Cerdá (2014), pp. 19–21.

⁵ Máñez and Cerdá (2014).

⁶ Van Ierland et al. (2013), pp. 1–4.

⁷ UKCIPS's Adaptation Wizard is an example of a system that combines tools, using a three-tier approach to appraise adaptation options through qualitative, semi-quantitative and fully quantitative analyses. Willows and Connell (2003).

⁸ CSTEP (2014).

designed a methodology to assess and select priority adaptation issues for each location where these have the capacity to make significant progress. This long-range planning exercise, which was conducted at both the national and sub-national level in the region from June to September 2015, involved the establishment of a team comprising government representatives, local experts, NGOs and other stakeholders. They identified a large number of issues directly related to climate change. A number of agreed criteria were used to prioritise the issues that ACT should work on. These included climate change relevance, real-world vulnerability (especially livelihoods in vulnerable communities), political demand for action, the potential for scaling up and replicating, and whether the issue supports existing programmes and projects, generates new tools, or delivers clear benefits with no associated controversy.

Framework for SAPCC mainstreaming

ACT is supporting state governments in India in their efforts to mainstream climate change action plans into development planning and budgeting, using a type of 'Climate Change Financing Framework'. The task of mainstreaming starts with an assessment of climate change relevance (CC%), which for adaptation actions is an assessment of the reduction in loss and damage caused by climate change. The CC% gives a consistent measure of the extent to which development activities should be given higher priority as a result of climate change, and they can be compared to figures in international reference tables that give CC% ranges for different types of activity. Climate

change planning and management has a CC% of 100%, for example, saline intrusion 50–75%, water quality and supply 10–33%, and infrastructure and construction 5%.

Choosing the right tools

A major challenge is to find climate adaptation tools that meet local requirements. This may involve the modification of existing tools requiring technical support. However, planning tools usually include everything necessary for adaptation planning, of which the prioritisation process is just one component, though they vary in the amount of user training that is recommended.

There have been efforts to organise climate adaptation tools to make them more accessible. For example, 30 planning tools that address climate compatible development have been collected together on the climateplanning.org web portal. These are grouped into 10 categories based on their primary purpose. For example, 'Adaptation assessment and process guidance tools' include CARE CVCA, CEDRA, GIZ Climate Proofing for Development, and the Red Cross/Red Crescent Climate Guide.⁹ This resource provided the basis for 'Climate Compatible Development Tools: A Guide for National Planning' (<http://www.climateplanning.org>), which helps users find the most useful climate compatible tools and methodologies for their needs.

Photo: CHEN WS / Shutterstock.com



⁹ Hagemann et al. (2011), pp. 41–48.

KEY MESSAGES

- A crucial step in the planning cycle for climate change adaptation is prioritising a set of actions for implementation
- Experience from South Asia suggests that the prioritisation process is not given enough importance, meaning that adaptation plans remain essentially a 'wish-list'
- There are a number of tools, approaches and methodologies that can be used for assessing possible adaptation options, usually based on criteria relating to effectiveness, feasibility and cost
- ACT is supporting national and sub-national governments in South Asia to prioritise adaptation actions, including those that ACT will help design and deliver
- A key challenge for governments interested in prioritisation is identifying the most appropriate tools and having the technical capacity to use them.



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Sources and further reading

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