

CA3: Develop Strategic Approach

Develop adaptation responses

This stage is concerned with developing appropriate adaptations to the threats and opportunities identified during **Stage 2**. This stage of the Action Pack covers similar ground to stage 3 of the services and estate threads with some differences of emphasis.

The key difference between developing climate action plans for local authority estate and services and a community-wide strategy via a Community Planning Partnership is likely to be in identifying and assigning responsibilities for actions across partnership members. In some cases responsibilities may be fairly clear-cut, but for more cross-cutting issues the mix of responsibilities may be more complex. In this case, it will be necessary both to agree responsibilities of particular stakeholders for specific actions and to ensure that these are co-ordinated effectively. The two most obvious approaches are to maintain the Action Plan team during the implementation of the strategy, or to establish a sub-committee of the partnership to oversee implementation. In either case the over-seeing group should report back to the whole Partnership regularly. Adaptive responses to climate change can be divided into two broad categories: Building Adaptive Capacity (BAC) and Delivering Actual Adaptation (DAA).

Building Adaptive Capacity involves developing an institutional capacity to respond to climate change effectively. Examples of BAC could involve activities such as:

- Undertaking research, institutional change, education and training.
- Creating standards and legislation, changing management systems, and developing personnel, or other resources to cope with, or benefit from, climate changes.
- Developing appropriate policies, plans, strategies.

Delivering Actual Adaptation is concerned with practical responses to climate change and could include measures such as:

- Building flood defences or managing retreat.
- Putting more nails in a roof tile, increasing the diameter of a drain.
- Creating 'siesta' times in a business or locality.

Developing a strategic approach to climate change adaptation at the partnership level falls into the BAC category. The roles of individual partners in implementing the strategy are likely to involve a mix of both BAC and DAA activities.

Stage output: List of preferred adaptation measures for the most significant issues identified in Stage 2 (with appropriate justification), together with proposals for assigning responsibilities to the various partner organisations for implementing the proposed responses.

Identify adaptation options

The general guidance on identifying adaptation options is repeated from the services and estate threads. These approaches are particular suitable for considering multi-stakeholder, cross-cutting issues, although they may raise complex problems. In some cases there may be useful synergies between possible adaptation measures and other strategic objectives, but in others there may be significant conflicts. For instance, in broad terms economic regeneration may be expected to reduce vulnerability to climate risks of individuals because increased affluence provides greater capacity for bearing any costs of adaptation, but development in flood plains, or in areas with constrained water resources, may increase vulnerability. There are a wide range of possible types of adaptation strategies that are outlined in the table below and a wide range of criteria for selecting any given option. These may include attitudes to risk, costs both financial and in terms of social or environmental impacts, conflicts and synergies with other policy objectives and considerations of non-climate factors. Some of the more basic options are considered below before introducing a more comprehensive table of strategy types.

The most basic option is to **do nothing**. This may be an appropriate response to low priority impacts or situations where climate risks are outweighed by non-climate factors. In some cases, it may also be appropriate for more significant impacts where no obvious adaptation response can be clearly identified, or where there are prospects that other factors may change future circumstances.

- 'No regret' options will deliver benefits that exceed their costs, whatever the extent of climate change. For instance, if you are already experiencing weather-related problems, then cost-effective actions to deal with them should be 'no regret' options.
- Win-win options are ones that contribute to desired outcomes (be they environmental, social or economic), and also improve your ability to adapt to climate risks.

You should, wherever possible:

- Avoid actions that will make it more difficult to cope with climate risks.
- Avoid making decisions that will make it more difficult to manage climate risks in the future. These are called adaptation constraining decisions, e.g. inappropriate development in a flood risk area.

The table below presents some possible types of adaptation strategies.

Adaptation strategy type	Notes
Use of risk-based policy and project appraisal process and techniques	Proactive. Organisations that adopt risk assessment will be more flexible and better able to cope with climate risks.
Delay and buy-time	Proactive. A delay strategy can help to deliver a better decision, if the delay time is used to improve your knowledge – for instance by combining it with research or monitoring.
Research	Proactive or strategic. Use research to better understand climate risks and performance of adaptation options.
Monitoring	Proactive: system performance monitoring. Reactive: climate impact monitoring.
Information supply, education, awareness-raising	Proactive or reactive. Can be used to raise awareness of the need to adapt.
Contingency planning	Strategic planning for low probability, high consequence events.
Diversification or bet-hedging	Proactive technical or policy response.
Insurance	Proactive, fiscal response.
Defend and manage	Proactive or reactive technical measures.
Change of use	Proactive or reactive. Includes planning responses, with or without technical measures
Retreat and abandon	Proactive or reactive. Includes strategic planning response.
Safety factors, climate headroom, buffering measures	Proactive or strategic. Includes technical and regulatory response.

Developing adaptation strategies

Adaptation strategies should be reasonable and proportional. If you over-estimate the significance of climate risks compared to the other risks you face, you may over-adapt. This could mean that resources are wasted, although you may prefer to be precautionary to make sure you are better protected. On the other hand, if you under-estimate climate risks and don't include sufficient adaptation measures, you will not be adequately protected.

Timing of adaptations

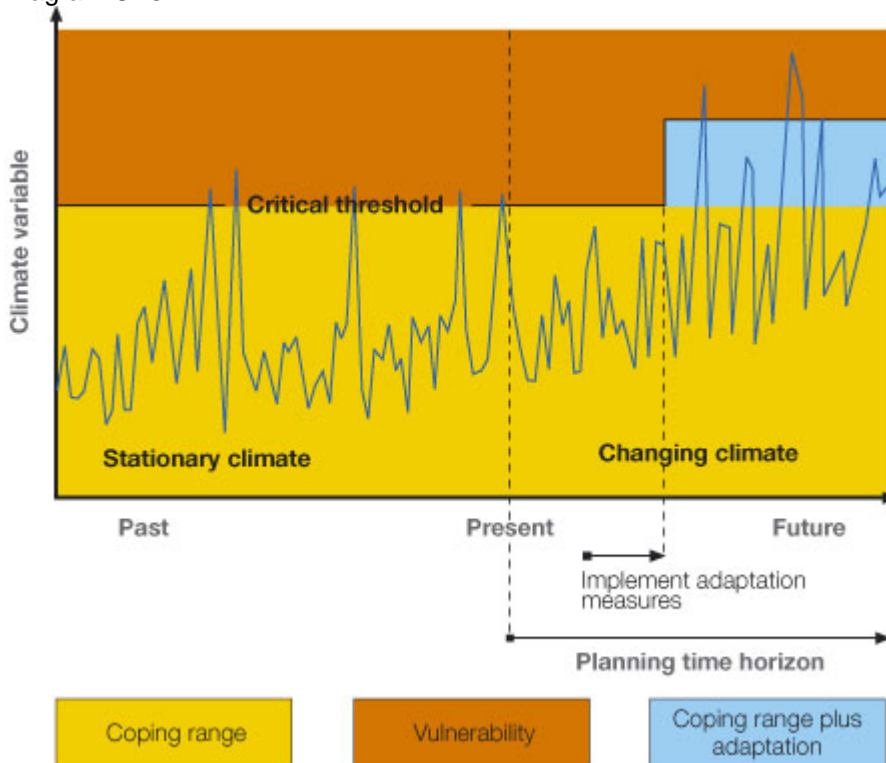
If you are already experiencing problems with weather-related impacts, then you should act right away to address them. You may also want to act quickly in order to take advantage of climate change opportunities. In other cases, you'll need to decide when to take action based on:

- How soon climate risks will exceed any critical thresholds (see diagram) for your system.
- The lead-in time (see diagram) for planning and implementing adaptation measures.

For instance, the time taken to plan and construct a new reservoir can be about 20 years. So if a new reservoir were needed to cope with summer droughts in the 2020s and beyond, planning would need to start now. In general, proactive adaptation is more effective and less costly than reactive adaptation.

The diagram CA3.1 illustrates considerations of vulnerability and the timing of adaptation responses.

Diagram CA3.1



Source: Willows and Connell, 2003

It might be appropriate to delay considering significant investment in adaptation in order to make a better informed decision. The delay time should be used to improve your knowledge – for instance by undertaking research or monitoring. However, before deciding to delay an important decision check how long it is before any critical thresholds could be exceeded.

Minimising the cost of adaptation

The costs of adapting to climate change can be minimised if adaptation is built in when:

- In the early stages of planning new developments.
- Infrastructure is upgraded anyway.
- Plans come up naturally for review.
- Before you are forced to act by a sudden event or mounting maintenance costs. For instance, costs of emergency repairs to infrastructure slopes are typically ten times the cost of routine maintenance.

CHECKLIST

- Have you identified adaptation options for your community?
- Have you considered the timing of these adaptation responses?
- Have you considered how to minimise the costs of any adaptation measures?

The output from this stage should be a list of suggested adaptation measures with clearly identified responsibilities for implementation.

