

Checklist for best practice adaptation planning and implementation

This checklist is based on a detailed review of best practice urban adaptation planning and implementation undertaken by OEH in 2012 as part of the *Towards a Resilient Sydney* project.

Governance

- The plan and planning process have high-level support
- The planning process is driven by an internal coordination unit
- Different areas of the organisation with different responsibilities and skills are involved in the planning process
- Existing responsibilities and areas of action have been mapped, and considered in the plan development
- Responsibilities for actions have been designated, supplemented by funding allocations and timeframes as far as possible

Planning

- The plan is based on a strong scientific foundation
- The plan acknowledges and communicates uncertainties
- The plan has clearly articulated aims
- The plan addresses both immediate and long-term needs
- A risk management approach is used for decision making
- The planning process uses a clear and consistent methodology for prioritising actions

A process is established for monitoring plan outcomes and progress, and for reviewing the plan

Implementation

The plan enables early adaptation

The plan highlights actions with co-benefits

The plan includes actions to build consensus and engagement, and concrete actions

Engagement and communication

There is a high level of stakeholder engagement in developing, implementing and reviewing the plan

There is engagement and communication with the community

The plan builds the capacity of the organisation, the community and individuals to adapt to climate change

Notes

Governance

High-level support

An effective adaptation planning and implementation program requires strong support, for example, endorsement from a mayor, majority council support, or explicit commitments in public documents. Adaptation is an iterative and long-term process which requires strong leadership and ongoing commitment to future outcomes.

An internal coordination unit

Due to the cross-sectoral nature of climate change adaptation planning and implementation, a wide variety of stakeholders will be involved. Depending on the scope of your plan, stakeholders may be within the council, from the public or private sectors, or from the community. To get the best possible outcomes from these stakeholders, an internal coordination unit needs to manage the project. This unit will coordinate comprehensive project planning, and provide a coherent approach across sectors and a 'one-stop shop' for adaptation information and input.

The setting up of an internal coordination unit will also reduce the chance of maladaptation, which occurs when there is an unexpected adverse outcome from an adaptation action, such as:

- an action could resolve a problem in one sector but cause problems in another, for example, using air conditioners could help reduce heat stress but increase both electricity usage and greenhouse gas emissions
- an action taken now prevents more appropriate actions from being taken in the future, for example, building a levee based on current rainfall patterns when future rainfall patterns may require a different design or location for the levee.

Mapping of responsibility and defined areas of existing action

Many actions required to adapt effectively to the impacts of climate change are already undertaken by government, private sector and community organisations. However, adaptation planning requires these actions to be based on new climate information. For example, engineers already plan for flood events but they will need to reassess their regularity and magnitude. Consequently, the most effective adaptation planning will benefit from mapping existing activities and responsibilities to design and implement adaptation actions.

Defining responsibilities will help create focused working groups that can share knowledge and avoid duplication of work and funding.

Allocated specific funds for adaptation, and where possible responsibilities and timeframes

Climate change adaptation is a long-term process requiring long-term commitment. Both financial and human resources should be designated to ensure actions can be planned and implemented over long timeframes. Allocated resources also build momentum and show commitment. In addition to ongoing funding, a discretionary fund is recommended for obtaining necessary information, for example, researching climate change impacts or the effectiveness of adaptation responses.

Due to the interdisciplinary action required, the responsibility for each aspect of an adaptation plan needs to be formally and clearly allocated. This avoids issues being neglected and also avoids duplication where more than one team has responsibility for a given issue. Managers or teams should be assigned to each action and provide opportunities for other stakeholders to provide input.

Adaptation planning

A solid scientific foundation

All climate change adaptation plans must be based on a solid scientific foundation. The expected impacts of climate change must be derived scientifically, and the methodology should be made public to ensure rigour and validity. Adaptation actions should also be based on scientific research, and be proven effective, where possible. Where innovative adaptation actions are employed, their effectiveness should be assessed before they are broadly implemented.

Accepting, working with and communicating uncertainty

Uncertainties are an inherent part of climate change modelling and impact assessment. Organisations working on adaptation plans need to be prepared to act with an acceptable amount of uncertainty about both climate change impacts and the potential impacts of their adaptation actions. A strong and transparent risk management framework can assist with this issue, but organisations also need to become comfortable with and experienced in communicating about uncertainty.

Clearly articulated aims

An effective adaptation plan must outline its purpose and its aims. Without clear aims, actions cannot be created to achieve them, or to measure progress and success.

A balance between immediate and long-term needs

Climate change presents both immediate and long-term challenges. Adaptation plans must address immediate challenges without compromising the ability to address long-term challenges. Funding cycles and decision making frameworks are generally focused on the immediate future, making it difficult to prioritise long-term considerations. Good adaptation practice addresses both the immediate and long-term needs of an organisation.

Clear risk management approach to assessing impacts

Using a risk management approach allows decision makers to assess the importance and probability of climate change impacts. Decisions can then be made methodically and objectively. A risk management approach also allows for flexibility, as risks can be revised in response to new information or changes in risk level following effective implementation of adaptation actions.

Clear methodology for prioritising actions

Given the complexity of climate change adaptation planning it is likely that many possible actions will be suggested for implementation. A methodology for prioritising these actions should be created at the beginning of the planning process, and used to justify subsequent decisions.

Ongoing monitoring and review process

Adaptation is not an end point; it is a constant process of planning, implementation, monitoring and revision. A good adaptation plan needs clear measures of success and methods for assessing the effectiveness of implemented actions, including quantitative indicators where possible. There must also be a formal process for incorporating new information and results of monitoring into revised plans and future actions.

Implementation

Early adaptation

The earlier climate change adaptation is started, the better. Early adaptation reduces costs and risks, increases resilience and builds adaptive capacity and the evidence to validate adaptation actions. Early adaptation also allows for the identification of key issues requiring further research.

Implementing adaptation actions with co-benefits

There is a high potential for adaptation actions with co-benefits; that is, actions which address more than one climate change impact, or which address a non-climate change issue while simultaneously building resilience to climate change. For example, when green space is added to limit heat in urban areas, it can also benefit the environment and provide opportunities for human recreation.

Engagement and consensus must be supplemented by actions

The complexity and pervasiveness of climate change impacts mean that many stakeholders will need to act. It is important not to postpone all actions while focusing on consensus and engagement with other stakeholders. Although organisations need to build partnerships with important stakeholders, they should also identify actions which they can implement immediately without waiting for stakeholder buy-in.

Engagement and communication

High levels of stakeholder engagement

Climate change adaptation will only be effective if stakeholders believe their interests have been represented and their concerns addressed, and the plan is based on the best information available. Effective engagement results in stakeholders adopting the goals of the plan, and assisting rather than resisting the implementation of adaptation actions.

Community engagement

As with most council activities, engaging with the community will be critical to the success of adaptation planning. Informing them about projected local climate impacts and canvassing their views on levels of acceptable risk will develop community understanding of climate change adaptation.

Building capacity

Climate change adaptation is a large and multi-faceted challenge, which needs to be addressed across sectors. Rather than imposing a top-down approach where a group of climate change experts work in a range of sectors, it is better to build capacity amongst people already working in each sector by involving them in the planning process. This allows people to use their existing expertise and be exposed to new ideas and parameters in a changing climate.

Capacity building strengthens the commitment people have to the adaptation process. People are generally more committed to, and satisfied with, working on projects they have helped to develop.