



## **Policy Forum on Adaptation to Climate Change in OECD Countries**

### **Summary Note**

**10-11 May 2012, OECD, Paris**

#### **Introduction**

The majority of OECD countries have either developed or are developing national adaptation programmes, with some having moved into their second phase. These have focused on mainstreaming climate risks into local and national policies, but with considerable variation in the policy instruments being used, the role of the state and the assignment of responsibilities between national, state and local governments. The growing body of practical experience of implementing adaptation has shed new light on existing challenges and raised new issues. In light of this, the Policy Forum on Adaptation to Climate Change in OECD Countries provided a key opportunity to take stock of countries' adaptation efforts, to enable countries to learn from each others' experiences, and to examine what has worked well and what the key challenges are for the future.

The Policy Forum brought together over 100 participants over two days, including national adaptation practitioners and experts, OECD country delegates, international organisations and agencies (including investment and economic development agencies and environmental organisations), local government and city representatives, research organisations, academic experts, and a wide range of private sector actors.

The first day of the policy forum focused on national adaptation policy-making, with sessions covering national progress, challenges and opportunities at national levels, multi-level governance of adaptation, and how to measure success. The second day addressed the challenge of engaging the private sector in adaptation, with sessions on the role of climate risk insurance, how the public and private sectors can collaborate on risk management, the private sector's contributions to societal resilience, and priorities for future policy development. This note provides a summary of the discussions and dialogues in each session – please note, the Policy Forum was conducted under Chatham House rules, therefore comments have not been attributed to specific participants.

## **Day 1 : National Adaptation Policy-Making in Developed Countries**

### ***Session 1. Progress at the national level***

Interest in adaptation to climate change has grown significantly over the last half-decade. Since 2005, when the first OECD country published a national adaptation strategy, many more countries have initiated and elaborated adaptation plans. Currently, seventeen OECD countries have adopted national adaptation strategies, and many other countries are working towards implementing strategies. There is also increased understanding of climate change impacts, risks and vulnerabilities, and there has been progress around several key themes: building the evidence base; mainstreaming adaptation; establishing formal structures for coordination. However, countries vary in the emphasis placed on different strands of action, and in the ways in which adaptation strategies and programmes have been put into action.

This session highlighted some of the approaches being taken by OECD countries, several options for implementing strategies, and key motivating factors for progress. Many countries have developed sectoral plans or programmes, which focus on ensuring resilience across a range of key sectors. However, the presentations and interventions showed that the sectoral approach varies among countries, including the specific sectors addressed, the number of sectors and the divisions between them. Countries' progress in developing and implementing sectoral plans also varies, and some countries are still in the process of developing their plans. Other significant components of national adaptation activities include risk or vulnerability assessments (which in some cases are highly complex and feed directly into national adaptation planning) and mainstreaming of adaptation (both within government activities and within government departments themselves). The discussion highlighted the dynamic nature of risks, which can change in terms of severity and importance over time.

There were differing perspectives about the need for a central coordinating mechanism. The majority of countries' plans include a co-ordinating mechanism to drive action, but some participants argued that it is also possible to implement adaptation actions and pursue a national adaptation agenda without a specific national "umbrella" strategy.

Participants highlighted the importance of public consultation in adaptation planning. Involving the general public and the private sector in developing plans, including rural and indigenous populations (where applicable), was a common factor in participant countries' planning. Countries noted that they are making efforts to build monitoring into their adaptation plans, though it was noted that given the difficulties in monitoring outcomes (e.g. in terms of reduced vulnerability) it may be easier to monitor process indicators (such as integration of adaptation into government activities and planning). One contrast in approaches relates to how sectoral plans have been developed – in some cases, countries have developed plans for different sectors in parallel (which makes it easier to manage cross-sectoral issues and to maximise synergies and minimise conflicts) whereas others have taken a sequential approach (which allows for learning over time from previous sectoral plans). Participants also noted a range of possible drivers of progress on adaptation, including institutional drivers, public demand for action, and increased interest and awareness following natural disasters and extreme events.

## *Session 2. Challenges and opportunities at the national level*

This session focused on challenges to implementing adaptation, and on how OECD countries have worked to overcome barriers to action. Based on presentations and discussion, it is clear that countries face common challenges around dealing with uncertainties, in co-ordinating adaptation at different levels of government, and in mobilising political will in support of adaptation.

A common point arising from this session was that that uncertainty, information deficiencies and the long time frames involved in climate change are a barrier to countries' adaptation decision-making processes. It was commented that cascading levels of uncertainty make it difficult to know what impacts to plan for and hence what adaptation actions to take. These uncertainties are compounded by the long time horizons involved in adaptation decisions and by shortcomings in the information and data available, which do not always match policy makers' or private actors' needs. However, countries also noted that uncertainty is not a valid reason for inaction – several participants stressed that societies often make decisions under uncertainty, and that countries also have previous experience of managing variable climates and extreme events. Moreover, adaptation is ongoing process, and uncertainty can be expected to narrow over time as scientific knowledge progresses. Participants also highlighted specific processes which enable effective decision making despite uncertainty barriers, such as the 'real options' approach.

Participants noted the challenge of co-ordinating adaptation at different levels of governance and among different government actors. They highlighted the challenge of co-ordinating national-level activities, such as sectoral adaptation plans. Participants also noted the challenge of integrating adaptation into regulatory procedures and environmental management processes – for example, ensuring that building regulations and land use planning policy incentivise adaptation and that there are no inconsistencies, gaps or overlaps between different regulations. Governments therefore need to co-ordinate regulation and policies at all relevant levels of government, and may also need to update relevant national or local building codes to take account of climate change adaptation needs. However, participants also noted that financial restrictions can limit governments' capacity to develop and implement adaptation plans.

Participants also identified two connected challenges to implementing adaptation plans – the need for political will and the challenge of financing adaptation. Countries noted that adaptation is not always perceived to be an important issue, is often viewed as something which can be deferred until a later date, and also may also not tie in with current government priorities (especially given current economic challenges). Attendees stressed the importance of ensuring that there is a constituency for adaptation. It was commented that policy makers may also find it easier to promote adaptation if proposed options serve multiple purposes and have multiple benefits, and if they consider how the adaptation agenda overlaps or connects with government priorities. Countries also suggested that governments should examine how to create awareness of and support for adaptation among the general public (for example, through programmes which stimulate interest and share knowledge) and among local government bodies. In response to the related challenge of financing measures (which can be a key factor in limiting support for adaptation) participants commented that policy makers should identify existing policies and instruments that are already in place which can be used to implement adaptation measures, or ones which can be adapted to do so, in order to limit implementation costs.

### *Session 3. Focus on multi-level governance*

This session examined various approaches to adaptation at different levels of governance, including local and city level adaptation, municipal and regional approaches, and the contributions that supra-national organisations can make.

Many countries' adaptation approaches focus on enabling bottom-up action, rather than following a top-down approach where national governments implement adaptation centrally. Reflecting the fact that adaptation is often a highly localised issue and that local actors are well placed to respond to climate risks, these approaches make adaptation the responsibility of regional, municipal or local governments. Participants argued that basing adaptation activities on local views and experiences, adaptation can be more flexible and responsive local needs. It was also noted that it can also be easier to carry out cross-sectoral planning at smaller scales as it may be easier to coordinate adaptation activities at smaller scales. Additionally, specific experiences at local levels can feed into higher-level understanding of adaptation approaches.

However, the discussion also drew attention to several challenges to implementing a localised approach to adaptation governance. Participants stressed that capacity constraints can significantly limit adaptation, as smaller-scale planning departments or government agencies do not always have the skills and experience needed to assess climate risks and devise adaptation plans. The discussion also noted that information challenges also act as barriers to action (especially where there is limited data on localised climate impacts) and uncertainties around climate change can be used as a justification for not taking action. Additionally, adaptation has to compete with other local priorities, including other legal obligations and differing political priorities. Several participants commented that a key challenge with a localised approach is that it makes national harmonisation and co-ordination of adaptation more difficult and can lead to uneven progress across different cities, municipalities and regions. It was also noted that a purely localised adaptation approach can make it harder to address trans-boundary impacts or knock-on effects from other areas. Regional and national government action may be required to address such issues.

In addition to setting the framework for local actors, the discussion highlighted the importance of assisting localised adaptation approaches by helping them overcome capacity and information constraints. Key suggestions for national governments included offering technical assistance in drawing up local adaptation plans, providing tools for conducting adaptation planning, and setting up knowledge networks to enable the sharing of information, approaches and best practices. However, it was noted that national governments need to take different approaches with different actors, reflecting local levels of engagement in adaptation and local capacities.

The discussion also highlighted two key roles that supra-national organisations can take to assist national- and local-level adaptation efforts – firstly, addressing larger knowledge and information constraints (for example by conducting research and convening knowledge-sharing forums), and secondly, by helping to address international trans-boundary issues. It was suggested that such organisations can also use existing policy environments to enable and encourage adaptation – for example, by incorporating adaptation in shared agricultural policies. However, while supra-national organisations can help to harmonise adaptation across countries, some participants noted that the variety of different adaptation processes being followed may reflect differing national settings, priorities and needs, and therefore questioned the extent to which approaches should be harmonised.

#### *Session 4. Measuring Success*

As progress on adaptation increases and as funding for adaptation accelerates, it is becoming increasingly important to ensure that policies are delivering their intended results and providing value for money. Monitoring and evaluation (M&E) is therefore a key component of adaptation plans and strategies. This session addressed how countries are implementing M&E in national adaptation planning, highlighted common challenges to implementing M&E regimes, and examines opportunities for future action.

It was evident from the presentations and discussion that national governments are increasing their focus and work on M&E of adaptation, although countries are at different levels in terms of designing and implementing M&E strategies. Some countries are at initial inception stages, others have undertaken preliminary work (such as risk assessment exercises), and some are developing complex monitoring systems (including multiple indicators and metrics). Some countries have moved away from process indicators (such as whether guidance on risks or adaptation is being provided) towards outcome indicators (such as reductions in vulnerability).

The discussion of countries' experiences in designing and implementing M&E systems illustrated several common challenges faced in monitoring adaptation. Participants stressed that it is difficult to monitor the outcome of adaptation measures, both because the climate change impacts being protected against may not have occurred yet and because it is difficult to attribute causality of reduced damages or lessened impacts to specific adaptation measures. It was therefore suggested that it may be more feasible to monitor the actions that have been implemented and any changes in exposure to risk. A possible approach suggested was to combine multiple implementation and exposure metrics to provide a more sophisticated indicator of progress in adaptation. Additionally, several participants noted the challenge of obtaining clear baselines against which to order to judge progress, as they can be technically challenging to evaluate and cannot always be determined due data restrictions. The discussion also highlighted the challenge of collecting relevant data at national levels, which can be highly costly and time-consuming. It was suggested that governments can minimise these costs by drawing on existing information sources and data-gathering structures. However, countries may still need to invest in additional monitoring systems and data gathering structures, and develop partnerships with key actors (such as infrastructure managers) to gain access to privately-held data.

This session also highlighted a variety of possible approaches to conducting M&E. One suggested alternative to traditional metrics of progress was to measure progress according to the "importance" of key issues within sectors. "Importance" is based on whether an issue (for example, water shortages) is sensitive to climate change impacts, whether the impact is important relative to other impacts within the sector, and whether there is a need for action to address the issue. The combination of these three factors can indicate the "importance" of the issue, and changes in these factors over time can indicate progress in adaptation. Additionally, several participants suggested that tools used to judge effectiveness in other circumstances (such as technical assessments of resilience against natural disasters) could be used to help assess reductions in vulnerability. It was also suggested that "climate analogues" (places currently experiencing the climatic conditions projected to occur in the future in the policy maker's location) could be used to determine if the adaptation policies being pursued are likely to effectively protect against future climate impacts. Participants also noted that "soft" measures, such as community assessments of vulnerability or stocktaking exercises (as opposed to "hard" numeric indicators) can provide meaningful measures of progress. It was also suggested that OECD countries may be able to learn from developing countries' experiences, as they often have to comply with rigorous M&E requirements in order to qualify for grant or loan funding for adaptation initiatives, and consequently have significant experience in implementing M&E systems.

## **Day 2. Public Private Sector Engagement for Climate Change Adaptation**

### ***Session 1. Risk-sharing and-risk transfer***

This session addressed the role of the insurance sector in adaptation to climate change. Risk-sharing and risk-transfer tools have the potential to play significant roles in protecting society against climate impacts and in incentivising risk-reduction activities. However, the task of setting up effective climate risk insurance services which are affordable and accessible but which also incentivise risk reduction is a significant challenge which has not yet been fully addressed.

Participants agreed that insurance can play a key role in adaptation by providing risk sharing, risk-transfer and risk-pooling services, which can ensure that risks are borne efficiently. By putting a price on risks, insurance can make those risks transferable and also create financial incentives for reducing risks. The insurance industry can therefore make both “pre-disaster” contributions (encouraging risk-reduction activities, implementing loss-prevention schemes) and “post-disaster” contributions (to help recovery and re-building). However, it was also commented that for insurance to be effective it needs to be deployed as part of a basket of adaptation options. But while it may not be appropriate to use only insurance to protect against climate change impacts, after all cost-effective risk-reduction measures have been implemented it may be more efficient to insure against residual risks rather than to implement expensive protective measures.

It was also noted that insurance needs to provide sufficient risk-reduction incentives, to avoid giving rise to perverse incentives not to implement adaptive measures. Participants stressed that getting the pricing right is one of the most important issues for climate risk insurance services. It was commented that incentives may be weakened by the timeframes used in insurance contracts, as common one-year contracts may not be forward-looking enough to incorporate climate change risks in their prices. Contracts covering longer time-periods may therefore increase incentives for action. However, while there was broad support for moving towards pricing that increases risk-reduction incentives, participants were also concerned that this may not match with a desire to maintain the affordability of insurance (especially for those on low incomes, who also have less capacity to cope with climate change impacts generally). It was noted that “actuarially fair”, un-subsidised insurance may not be affordable, especially in poorer countries. One suggestion for addressing this challenge was to provide specific support only to vulnerable or poorer groups (such as a voucher towards the cost of insurance), as an alternative to subsidising insurance generally to maintain availability. A further issue raised in discussion was that insurance pricing also needs to reflect consumers’ willingness-to-pay, as well as basic affordability, as consumers may no longer view insurance as worthwhile at higher costs.

The session also gave rise to several questions about the relationship between the public and private sectors in providing insurance. Participants noted that, while there have frequently been calls for the public sector to engage with the private sector on climate risk insurance issues, there are still many key areas which are not yet well understood. These include the barriers the private sector faces to providing climate risk insurance (and whether the public sector creates barriers itself and whether it can help overcome barriers), the realistic extent of the insurance services that the private sector can provide, and how effective these services actually are (in terms of protecting against risk and incentivising action, relative to other adaptation options). Additionally, some participants raised concerns about the nature of partnerships between the public and private sectors, as situations where the public sector under-writes all risks and the public sector either acts as a simple intermediary or enjoys profits without bearing risk may be untenable (both financially and politically). The session therefore concluded that, while climate risk insurance holds significant potential as an adaptation option, as part of a portfolio of measures, there are still key questions about how it can be successfully deployed.

## ***Session 2. Public-private collaboration on risk management***

While they are sometimes viewed as two distinct spheres, in reality the public and the private sector are highly interconnected. Effective adaptation will therefore require them to collaborate to manage the risks and vulnerabilities arising from climate change. This session examined how the public and private sectors can work together to deliver resilience through investment partnerships and through public actions to enable private adaptation.

The presentations and discussions highlighted investment partnerships as a significant opportunity for collaboration between the public and private sectors. The range of partnerships discussed illustrated that they can vary significantly based on the public and private actors involved, the extent and type of investments, and the formality of partnership arrangements. For example, local or city governments can draw on private finance to fund investments in local resilience, and national governments and commercial enterprises can form public-private partnerships to deliver resilient infrastructure. Participants' experiences in forming such partnerships highlighted several important success factors.

Firstly, attendees noted the importance of mutually acceptable “benefit-risk balances” – both parties need a fair return for the risks they bear and to satisfy their stakeholders' risk-return requirements. Alternative financing arrangements (such as allowing land value capture, granting commercial interests or linking low-profit projects with more profitable investments) can improve this balance and help to secure private sector financing. Secondly, it was argued that the public sector should look beyond traditional climate change funding sources, and should consider how to attract private financing. While significant funding is available from private or institutional investors, governments may need to take special actions to gain access to this financing (for example, one suggestion was to bundle packages of investments to reach a scale of investment that is more attractive to larger investors).<sup>1</sup> Thirdly, participants suggested that for more formal partnerships, the public sector needs to engage in project development and selection processes, to ensure that the options proposed by the private sector meet public expectations and requirements. Fourthly, participants stressed that the public sector needs to establish stable and predictable frameworks, as predictability is key for long-term partnerships. While regulations or partnership arrangements can be adjusted to meet changing conditions, this needs to be done in collaboration with private sector partners (otherwise the public sector risks damaging its credibility as an investment partner).

Discussion also highlighted the potential role of the public sector in enabling and encouraging private investments in resilience. This was noted to be especially important for sectors of economic significance and which are particularly vulnerable to climate change impacts, such as built infrastructure, water services and energy generation and transmission. Ensuring that such privately-owned or -managed infrastructure is resilient to climate change will be a key factor in national adaptation. Participants note that the public sector can do this by incentivising adaptation, by providing the private sector with resources or guidance to help it adapt, or by requiring adaptation through regulation or legislation. Climate data and projections can be key in assisting adaptation decisions, and participants suggested that the public sector should consider the benefits of providing such information as a public good. Discussion also highlighted that getting regulation right will be crucial to encouraging and enabling adaptation - regulation needs to balance requirements to adapt with the private sector technical limitations and financial concerns, and needs to avoid creating perverse incentives or barriers which limit adaptation. Participants also agreed that the public sector should establish predictable regulatory regimes, as the private sector needs to be able to predict what will be required of it in order to effectively plan for the future.

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<sup>1</sup> An ongoing OECD project is developing a domestic policy framework to encourage private sector investment in low carbon and climate-resilient infrastructure, including the use of market-based, regulatory and financial instruments. For more information see the draft document *Towards A Green Investment Policy Framework: The Case of Low-Carbon, Climate Resilient Infrastructure*.

### ***Session 3. Private sector's contribution to societal resilience***

While private actions in response to climate change are primarily motivated by rational self-interest, they can also make significant contributions to societal resilience. On a basic level, private sector adaptation actions contribute to broader societal resilience (and reduce the need for the public sector to invest in adaptation measures). This session highlighted additional ways in which the private sector can also contribute to resilience, including by taking advantage of new opportunities arising from climate change, which can increase general adaptive capacity and also help others to adapt (through the provision of adaptation goods and services), by investing in public and private actions which create resilience, and by collaborating with the public sector (for example, to share information and develop systemic resilience).

While the traditional response to climate change has been to focus on the additional risks it poses, participants noted that the private sector is increasingly interested in the new commercial opportunities arising due to climate change, such as new shipping possibilities due to reduced sea ice and increased agricultural production in areas that were previously not economically viable. (Although this new economic activity does have to be balanced against the large expected losses due to climate change.) However, the presentations also illustrated the range of new adaptation market opportunities which are arising. It was commented that companies are already starting to realise new commercial opportunities for products and services to help people and companies adapt to its impacts, including agricultural products, water management technologies, healthcare, logistics and transport, industry and manufacturing, and financial and consultation services.

The discussion also explored how the private sector is investing in projects which increase climate resilience. It was noted that a wide range of investors – including private investors, institutional investors, investment banks and asset management agencies – can contribute to societal resilience by funding climate resilience projects (including projects primarily aimed at resilience and where it is a component of the investment). Participants suggested that the public sector can assist in these efforts by working with investors to get them to consider adaptation in their investment decisions.

The discussion also covered multiple opportunities for the private and public sectors to collaborate to increase resilience and assist adaptation efforts. These include working together on: economic models and recommendations; technological responses to climate change; forecasting systems and climate models; early warning systems; new building codes and land use regulations; new standards for equipment and products; behavioural recommendations; making supply chains climate resilient; knowledge networks and information-sharing regimes; and design specifications for resilient infrastructure. Discussion highlighted some particular benefits and challenges for some public-private collaboration opportunities. While knowledge-sharing can be a “win-win” that benefits both the public and private sectors, it was stressed that frameworks are needed to encourage and enable such activities. Additionally, participants commented that commercial sensitivities around vulnerabilities and opportunities limit the private sector's incentives to share information. Attendees also noted that businesses can use their experience in marketing and product development to steer consumer behaviour and encourage the use of products suited to future climate conditions (such as cleaning products that require less water). Additionally, businesses can use their procurement power to require that their supply chain is resilient and environmentally and economically sustainable, and that in turn this gives rise to new commercial opportunities for industries and suppliers to develop operations in climate-resilient locations.

#### *Session 4. Priorities for policy development*

Drawing on the discussions in previous sessions, this session addressed outstanding challenges around public-private collaboration for adaptation, information gaps, and priorities for future policy development.

Participants commented that in many cases, governments already possess the policy tools needed to encourage the private sector to adapt to climate change (such as public regulations). However, they also noted that governments need to ensure that these tools are correctly calibrated – they need to revise policies that were developed for static environments, and they need to eliminate policies that give rise to perverse incentives not to adapt to climate change. Additionally, it was argued that while creating enabling environments is a key step towards encouraging private sector action, the public sector also needs to use its policy mandate to ensure that the private sector is acting.

The discussion also highlighted several further options for enabling private action. An important role for the public sector is providing information to assist climate change adaptation, though it was noted that, in addition to providing information, the public sector also needs to make sure that end users can access, understand and use this information. Participants also made the case that the public sector needs to improve how it communicates with the private sector in order to better communicate the need for adaptation. To do this, the public sector needs to better understand how the private sector communicates, and needs to examine how it can adjust current communication strategies to reach business audiences. Attendees also commented that the public sector should set up knowledge-sharing mechanisms and dialogues to allow for effective information sharing between the private and public sectors. Another suggestion was that the public sector should also explore new opportunities for communicating the need for adaptation – for example, dialogues around how climate change will affect economic growth can attract the private sector's attention. Additionally, some attendees argued that both the public and private sectors are happy to stay within their "comfort zones" and conduct risk assessments, but that they appear reluctant to move beyond these to the implementation of adaptation strategies. They therefore suggested that the public sector should therefore examine ways to move society beyond talk to taking action.

The discussion also highlighted opportunities for learning and information gaps. Participants argued that the public sector should look to learn from the private sector, particularly in relation to risk management and changing behaviours. For example, governments may be able to learn from how companies manage risk strategically. Discussions highlighted a key information gap around how well societies are managing climate risks – participants noted that it is not clear whether the public and the private sectors are currently managing climate change risks efficiently, or if they are falling behind the efficient adaptation path. This highlights the need to assess the current level of action, and also to constantly monitor and assess adaptation to see how well risks are being managed. Attendees also raised questions around why the private sector appears so reluctant to implement adaptation, given the wealth of knowledge about climate impacts, and about how the public sector should compensate local and indigenous knowledge which supports climate change adaptation.