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**Nairobi work programme on impacts, vulnerability and adaptation to climate change**

## **Report on the technical workshop on advancing the integration of approaches to adaptation planning**

**Note by the secretariat**

### *Summary*

This report provides a summary of the technical workshop on advancing the integration of approaches to adaptation planning, organized under the Nairobi work programme on impacts, vulnerability and adaptation to climate change. The workshop was held in Bangkok, Thailand, from 12 to 14 October 2009. Discussions at the workshop identified a number of factors that are conducive to integration, including stakeholder engagement, provision of relevant information and guidance, and the opportunities provided by wider ongoing processes in climate change and development. The report includes an overview of key discussion points at the workshop, as well as a summary of recommendations and issues for follow-up and further consideration under the Nairobi work programme.

## CONTENTS

|      |                                                                                                                      | <i>Paragraphs</i> | <i>Page</i> |
|------|----------------------------------------------------------------------------------------------------------------------|-------------------|-------------|
| I.   | INTRODUCTION .....                                                                                                   | 1–7               | 3           |
|      | A. Mandate .....                                                                                                     | 1–2               | 3           |
|      | B. Scope of the note .....                                                                                           | 3–4               | 3           |
|      | C. Possible action by the Subsidiary Body for Scientific<br>and Technological Advice .....                           | 5                 | 3           |
|      | D. Background.....                                                                                                   | 6–7               | 3           |
| II.  | PROCEEDINGS .....                                                                                                    | 8–13              | 4           |
| III. | ANALYSIS OF THE ISSUES ADDRESSED AT THE WORKSHOP                                                                     | 14–64             | 5           |
|      | A. Introduction.....                                                                                                 | 14–18             | 5           |
|      | B. Current experiences, good practices and lessons learned<br>in integrating approaches to adaptation planning ..... | 19–45             | 6           |
|      | C. Opportunities and enabling factors for integrating<br>approaches to adaptation planning .....                     | 46–57             | 10          |
|      | D. Barriers and challenges in advancing the integration of<br>approaches to adaptation planning .....                | 58–64             | 12          |
| IV.  | SUMMARY OF RECOMMENDATIONS .....                                                                                     | 65–78             | 13          |
|      | A. Enhance the knowledge base and improve access to<br>relevant knowledge and information .....                      | 66–74             | 14          |
|      | B. Create an enabling policy environment .....                                                                       | 75                | 15          |
|      | C. Enhance institutional and technical capacities .....                                                              | 76–77             | 15          |
|      | D. Enhance the provision and delivery of financial resources ....                                                    | 78                | 15          |
| V.   | ISSUES FOR FOLLOW-UP AND FURTHER CONSIDERATION..                                                                     | 79–87             | 15          |
|      | A. Current and planned actions by Nairobi work programme<br>partners .....                                           | 79–86             | 15          |
|      | B. Possible next steps under the Nairobi work programme .....                                                        | 87                | 17          |

## **I. Introduction**

### **A. Mandate**

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its twenty-eighth session,<sup>1</sup> requested the secretariat, under the guidance of the Chair of the SBSTA, to organize, before its thirty-first session, a technical workshop to consider how to advance the integration of various approaches to adaptation planning, including scaling up of local and community-based adaptation.

2. The workshop was to involve representatives from Parties, relevant organizations, communities and experts, with a view to facilitating informed decision-making on integrated practical adaptation actions and measures at various levels and for various sectors and livelihoods. The workshop was to take into account submissions<sup>2</sup> made by Parties and relevant organizations on the subject and a synthesis report based on these submissions and other relevant sources.<sup>3</sup> The SBSTA further requested the secretariat to prepare a report on this workshop, to be made available by its thirty-second session.<sup>4</sup>

### **B. Scope of the note**

3. This document provides information on the workshop referred to in paragraph 1 above, drawing upon the presentations and discussions that took place.<sup>5</sup>

4. The document contains:

- (a) A description of the workshop proceedings (chapter II);
- (b) An analysis of key issues addressed at the workshop (chapter III);
- (c) A summary of recommendations for further action identified by participants (chapter IV);
- (d) An outline of current or pledged action in this area and possible issues for follow-up and further consideration under the Nairobi work programme on impacts, vulnerability and adaptation to climate change (chapter V).

### **C. Possible action by the Subsidiary Body for Scientific and Technological Advice**

5. The SBSTA may wish to consider this workshop report at its thirty-third session as part of its consideration of the outputs from activities completed prior to that session, with a view to reviewing the effectiveness of the Nairobi work programme.

### **D. Background**

6. The overall objective of the Nairobi work programme is to assist all Parties, in particular developing countries, including the least developed countries (LDCs) and small island developing States, to improve their understanding and assessment of impacts, vulnerability and adaptation, and to make informed decisions on practical adaptation actions and measures to respond to climate change on a sound scientific, technical and socio-economic basis, taking into account current and future climate change and variability.<sup>6</sup>

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<sup>1</sup> FCCC/SBSTA/2008/6, paragraph 61.

<sup>2</sup> Compiled into document FCCC/SBSTA/2009/MISC.4.

<sup>3</sup> FCCC/SBSTA/2009/6.

<sup>4</sup> FCCC/SBSTA/2008/6, paragraph 62.

<sup>5</sup> The relevant documentation related to this workshop is available at <<http://unfccc.int/4915.php>>.

<sup>6</sup> Decision 2/CP.11, annex, paragraph 1.

7. Activities in the work area of adaptation planning and practices under the Nairobi work programme are undertaken with a view to advancing the objective stated in the annex to decision 2/CP.11, in particular to advancing the sub-themes stated in paragraph 3 (b) (i), “Promoting the development and dissemination of methods and tools for assessment and improvement of adaptation planning, measures and actions, and integration with sustainable development”; (b) (ii), “Collecting, analysing and disseminating information on past and current practical adaptation actions and measures, including adaptation projects, short- and long-term adaptation strategies, and local and indigenous knowledge”; and (b) (iv), “Facilitating communication and cooperation among and between Parties and relevant organizations, business, civil society and decision makers, and other stakeholders”.

## II. Proceedings

8. The technical workshop on advancing the integration of approaches to adaptation planning was held in Bangkok, Thailand, from 12 to 14 October 2009. It was organized by the secretariat, and the Governments of Norway and the United Kingdom of Great Britain and Northern Ireland provided financial support. Ms. Helen Plume, Chair of the SBSTA, chaired the workshop.

9. Participants at the workshop comprised 81 representatives from Parties and relevant international organizations, intergovernmental organizations and non-governmental organizations (NGOs) that are active in the areas of adaptation planning and practices.

10. Discussions at the workshop were informed by the submissions and synthesis report mentioned in paragraph 2 above, and by the reports on two related workshops under the Nairobi work programme – one on adaptation planning and practices held in September 2007 in Rome, Italy,<sup>7</sup> and one on integrating practices, tools and systems for climate risk assessment and management and disaster risk reduction strategies into national policies and programmes, which was held in March 2009 in Havana, Cuba.<sup>8</sup>

11. After the opening, a set of introductory presentations provided the background to the Nairobi work programme, an introduction to the synthesis report mentioned in paragraph 2 above and an overview outlining some of the conceptual as well as practical issues involved in the integration of different approaches to adaptation planning.

12. Current experiences, good practices and lessons learned in integrating approaches to adaptation planning were discussed in three plenary sessions. This also covered barriers, challenges and opportunities, and focused on integration across levels, sectors and hazard types. These sessions were followed by a more in-depth exchange of views and information on the same set of issues in three breakout group sessions. Key discussion points and conclusions from the breakout groups were presented and discussed at a plenary session. A panel discussion then followed to provide perspectives on a set of overarching issues within the context of integrating approaches to adaptation planning. These included issues related to gender-conscious approaches, ecosystem management, stakeholder engagement and the process of preparation of national adaptation programmes of action (NAPAs). In addition, Parties and organizations were invited to make new action pledges, provide updates on existing pledges and share information on relevant activities, with a view to addressing the challenges in advancing integration that had been identified during the workshop.

13. A final panel was held for breakout group facilitators and participants to share their conclusions and to make recommendations for possible next steps and follow-up action under the Nairobi work programme. The workshop concluded with a chair’s summary and concluding remarks by a representative of the secretariat.

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<sup>7</sup> FCCC/SBSTA/2007/15.

<sup>8</sup> FCCC/SBSTA/2009/5.

### III. Analysis of the issues addressed at the workshop

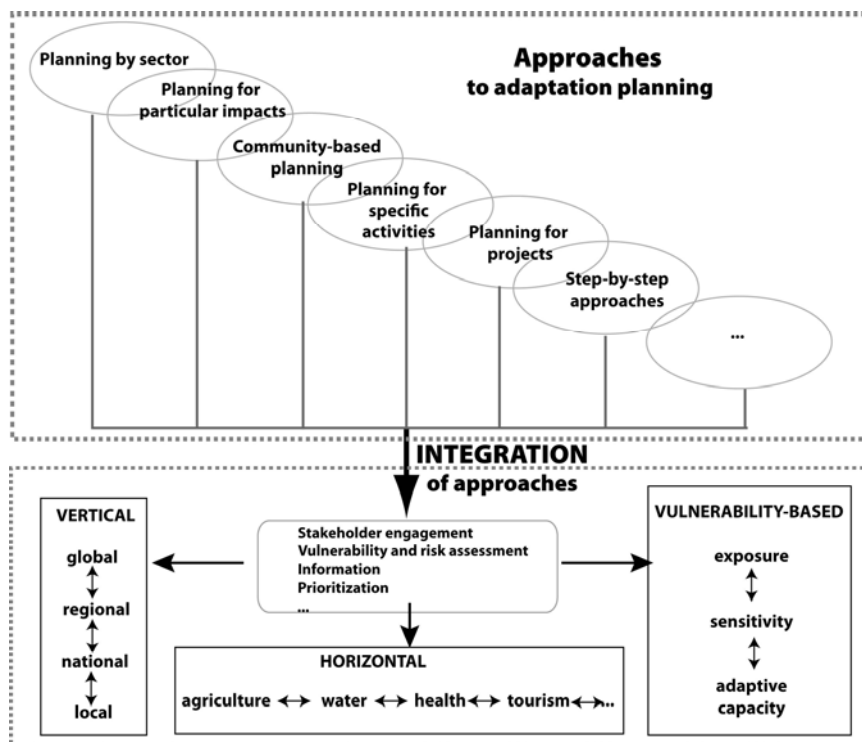
#### A. Introduction

14. To address the wide range of climate change impacts within different contexts, a variety of approaches to adaptation planning have been developed. These include planning for adaptation in different sectors (i.e. a sectoral approach), coping with particular impacts such as droughts and storms (i.e. an impact-based approach), addressing the vulnerability of certain groups such as farming communities (i.e. a community-based approach), climate-resilient development projects (i.e. a project-based approach) and taking a step-by-step approach. Each of these approaches facilitates adaptation planning in particular ways within specific contexts, involving different stakeholders and with different requirements for technical, institutional and financial resources.

15. Meanwhile, efforts have begun to consider how to integrate these approaches, since no single adaptation planning approach is sufficient to address the array of complex situations where adaptation takes place. There is also a concern to avoid what may be termed ‘silo’ adaptation planning, where different types of adaptation intervention are planned in isolation from one another.

16. In broad terms, integration of adaptation planning approaches could be achieved through close coordination and cooperation across administrative levels (i.e. vertical integration), across economic sectors (i.e. horizontal integration) or through the consideration and reduction of vulnerability of a particular group or system (i.e. vulnerability-based integration). These different types of integration share certain elements, without which none of them could be possible. These include stakeholder engagement, vulnerability and risk assessment, the need for relevant information, and prioritization of adaptive measures. The figure below, presented at the workshop, provides a diagrammatic representation of the conceptual framing for the workshop discussions.

**Conceptual framework of approaches to adaptation planning and their integration**



17. There was a consensus among participants that integration of different approaches is essential to make adaptation planning more effective and sustainable by taking advantage of what each approach has to offer, filling gaps, encouraging synergies and avoiding overlaps and conflicts. However, participants also recognized that integrated adaptation planning is still at an early stage and that much can be gained through learning by doing. This places an emphasis on documenting, disseminating and sharing good practices and lessons learned. The Nairobi work programme could play a significant role in facilitating knowledge sharing and learning in this regard.

18. Although it was the intention for the workshop to focus on achieving coherence between different adaptation planning approaches, many of the interventions also referred to a second aspect of integration, namely, integrating adaptation planning into the broader development process. It emerged that placing adaptation planning within the development context is instrumental in ensuring integration across approaches. Discussions at the workshop suggested that there are certain elements that are critical to both types of integration, and these common elements will be explored in the remainder of this chapter.

## **B. Current experiences, good practices and lessons learned in integrating approaches to adaptation planning**

### **1. Current practices**

19. A wide range of practices in integrating approaches to adaptation planning across administrative levels, economic sectors and hazard types were shared by participants through presentations in plenary sessions and more in-depth discussions in breakout groups. These are presented below under the following three main processes through which integration of adaptation planning approaches takes place: engagement of stakeholders through partnerships, coordination and collaboration; provision and dissemination of relevant information and guidance; and national climate processes, development planning, resource management and legislative frameworks.

#### *Stakeholder engagement: partnerships, coordination and collaboration*

20. Partnerships and collaboration among key stakeholders were identified by participants as one of the main elements of integrated adaptation planning.

21. In some cases, this is coordinated at national level. In Bangladesh, for example, cyclone and flood risk management is facilitated by a well-coordinated system whereby the Prime Minister's office takes the overall responsibility and sub-district offices are in charge of the operations through a district management committee. The committee consists of representatives from different sectors and local leaders, who are each assigned specific tasks. This mode of integrated operations has significantly reduced the losses from extreme weather events in recent years.

22. Further examples were given of using collaboration to integrate adaptation into other processes. In New Zealand, the Ministry for the Environment takes the coordinating role within the national Government to ensure that climate change concerns are integrated into the planning and practices of other line ministries, through a variety of means including convening quarterly coordination meetings. In Sri Lanka, a multi-stakeholder and multi-sector process has resulted in the integrated management of malaria risk in the country.

23. Collaboration at a lower level was also discussed. Under the overall facilitation of the United Kingdom Climate Impacts Programme (UKCIP), and through a largely research-oriented and voluntary process, a notable number of partnerships between subregional and local authorities in the United Kingdom have been established to explore the implications of climate change for the natural environment and key economic sectors. Through years of sharing experiences and good practices, these partners have become "willing champions" in integrating adaptation planning into subregional and local development

plans and resource management strategies. Key stakeholders from subregions and local communities, including decision makers, resource managers, representatives of professional bodies and the business sector and residents of towns and villages, are invited to technical discussions and policy consultations. Because they have been given ownership of the process, stakeholders involved in the partnerships need very little external persuasion to integrate concerns over climate change and its impacts into routine planning and resource management practices.

24. An example of regional integration is the work of the Caribbean Community Climate Change Centre, which facilitates and coordinates activities among a large number of regional entities to ensure that adaptation planning proceeds in an integrated manner, that synergies are promoted and that duplication of efforts is avoided.

25. In many of the Pacific small island developing countries, adaptation planning and implementation of projects emphasizes engagement of and collaboration among all key stakeholders, including local communities as well as national-level decision makers, bilateral and multilateral donors, and NGOs. Through a participatory and consultative process, national policies take into account local needs and knowledge from local communities. This is key to ensuring that adaptation plans address the priorities of the vulnerable and gain their support, and ultimately to ensuring the success and sustainability of adaptation plans and actions. In addition, the knowledge offered by stakeholders at the local level is often critical to the adaptation planning process. For example, the Government of the Federated States of Micronesia developed a plan for building roads to connect three villages in the state of Kosrae. But consultations with local communities raised concerns with the plan. Local knowledge on the vital importance to village livelihoods of maintaining a pristine stand of mangroves and forests, which would otherwise have been cleared under the Government's plan, was taken on board, and a new plan was drawn up to preserve the ecosystems.

26. Also at the local level, the Food and Agriculture Organization of the United Nations (FAO) aims for the full engagement of stakeholders in its efforts to help farmers plan for adaptation. In a wide range of cross-cutting activities, such as training, cross-sectoral coordination and policy advocacy, input from stakeholders at local level is sought for the assessment of risk, vulnerability and local livelihoods, promotion of institutional capacity, and identification of adaptation strategies and options that are locally relevant.

*Technical advice: provision and dissemination of relevant information and guidance*

27. Another way in which Parties and organizations integrate adaptation planning is the provision and dissemination of information and guidance. Information on the implications of climate change for the various economic sectors and production systems, as well as practical guidance on adaptive measures, can be identified, analysed and implemented, and provides an important technical basis for the integration of adaptation planning. In addition, the process of developing guidance documents often involves the participation of stakeholders, and hence promotes stakeholder ownership and encourages the application of guidance through integrated practices.

28. In New Zealand, the Ministry for the Environment provides a central platform for disseminating relevant data sets, information and guidance documents to assist other national government departments in integrating adaptation into regular planning and management practices. Saint Lucia has developed engineering guidelines and training sessions for the construction sector to incorporate climate change adaptation into the design and construction of buildings.

29. UKCIP has catalysed a large number of integrated adaptation activities through the provision and dissemination of technical publications and guidance. These include training in climate and socio-economic scenarios, a methodological framework for climate risk management and decision-making, and guidance material on the integration of climate change adaptation into sector-specific planning and programmes.

The development of guidance like this often starts with comprehensive consultations with potential users, and the process of dissemination also provides an opportunity for users to provide feedback on its usefulness and suggest improvements.

30. The Least Developed Countries Expert Group (LEG) has developed annotated guidelines and a step-by-step guide to assist LDCs in preparing and implementing NAPAs, respectively. These guidance documents emphasize the integration of bottom-up, participatory and top-down approaches to adaptation planning, as well as the integration of adaptation planning and action into national development.

*Synergistic processes and practices: national climate processes, development planning, resource management and legislative frameworks*

31. A large number of integrated practices shared by participants are related to undertaking adaptation planning within the context of ongoing national climate processes, development policy and legislative frameworks.

32. Participants frequently cited the catalytic role of national communications, NAPAs and similar national climate processes in integrating adaptation planning. These processes have required the development of new institutional arrangements, technical teams and expertise, data and information, which, as well as good practices and lessons learned from these processes, have been built upon and are now facilitating the integration of adaptation planning approaches. In addition, national development strategies (e.g. poverty reduction strategy papers) and legal frameworks (e.g. building codes or civil defence acts) are reported to promote the integration of adaptive measures into development plans.

33. Participants shared experiences of integrating adaptation into development planning and resource management. This often involves major economic sectors and their associated responsible authorities. It usually takes place within a specific administrative unit (e.g. a municipality) and/or resource management framework in a geographical area (e.g. a river basin), whereby reduction of vulnerability and enhancement of resilience to climate change are integrated into broader objectives of socio-economic development, sustainable resource management and relevant legislative frameworks.

34. For example, in Haiti and Madagascar, municipality- and watershed-based initiatives run by FAO strengthen the climate resilience of rural communities by strengthening social safety nets in rural areas through job creation; enhancing the resilience of infrastructure and fragile areas to extreme weather events; and reducing the exposure of rural communities to floods and other climate extremes. Using a case study from the tsunami-stricken areas of Aceh, Indonesia, Wetlands International illustrated how mangrove restoration contributed to increasing the resilience of affected communities and ecosystems. This approach reflected a win-win situation where the natural environment is preserved and alternative livelihoods are introduced to communities.

35. Legislation, too, can be catalyst for the integration of adaptation planning. In New Zealand, the Resource Management Act requires local authorities to integrate adaptation to the effects of climate change into their development plans, while the Building Act 2004 and the Building Code Review 2007 specify 50 years as the lifetime to be considered for the design of buildings under a changing climate. Similarly, the Civil Defence and Emergency Management Act 2002 requires consideration of changes in the frequency and intensity of extreme weather events in future. In the United Kingdom, the National Risk Assessment process mandates each government department in a five-year cycle to integrate climate change adaptation planning into its departmental policies and operational processes and report to the lead department. In addition, the Climate Change Act 2008 mandates a large number of entities charged with public service delivery to undertake periodic climate risk assessment and report on their adaptation efforts to manage such risks. This is expected to systematically integrate adaptation planning into the routine sectoral planning and operational practices of participating organizations. Motivated by the potential business advantages

associated with climate-resilient measures, other entities that are currently not mandated, particularly those in the private sector, may well aspire to follow these climate-conscious practices.

36. Several examples related to buildings and construction. In China, for instance, changes in key climate parameters were integrated into the design and construction work of the Beijing–Tibet Railway, which goes through a permafrost area. In Australia, the state government of New South Wales requires all property developers to integrate concerns of climate hazards and adaptation into their planning. In Saint Lucia, public buildings have been retrofitted to take into consideration the potential impacts of projected climate change, and there are plans to formally integrate climate change adaptation into the construction and retrofitting of public buildings through the approval process of the Development Control Authority.

37. Saint Lucia also ensures that adaptation is incorporated into its National Hurricane Plan and National Emergency Management Plan, while the introduction of the National Disaster Management Programme and Strategy in Bangladesh has resulted in the integrated management of saline, flood and drought risks. Elsewhere, Cuba uses a legal framework to ensure that authorities and institutions at different levels fulfil their responsibilities in managing weather-related disasters. In Trinidad and Tobago, climate risks are to be included in environmental impact assessments (EIAs). The inclusion of climate change adaptation plans is already one of the criteria for approval of projects requiring EIAs in Belize.

## 2. Good practices and lessons learned

38. In spite of the numerous analytical studies and assessments that have been undertaken to investigate the potential impacts of climate change on human society and the natural environment, participants acknowledged that the integration of adaptation planning approaches, and adaptation planning itself, are relatively new areas. It is not entirely clear what is required to effectively integrate different approaches to adaptation planning, and there are no commonly accepted criteria yet for defining successful integration. Nevertheless, participants were able to identify the following good practices and lessons learned from early efforts in adaptation planning and integration within different contexts. These will evolve and be added to as the knowledge base grows through learning by doing.

### *Stakeholder involvement at all stages and at all levels*

39. Throughout the workshop, participants reiterated the importance of engaging stakeholders in ensuring the effectiveness and long-term sustainability of adaptation planning. They noted that good adaptation practices need to be people-centred. An open, inclusive and transparent approach is key to any successful and integrated adaptation practice. The Secretariat of the Pacific Regional Environment Programme (SPREP) reported, for example, that the active participation of stakeholders in the Pacific Islands Climate Change Assistance Programme has resulted in valuable support from local communities, which provide in-kind services and input to projects. Practical Action noted that by engaging local-level stakeholders in this way, community needs for information, policy and financial support from local and central governments can be identified and met.

40. Depending on the context, different groups of stakeholders assume particular roles with varying responsibilities and strategic positions at specific stages of adaptation planning. Ghana indicated the strategic role of women's participation in ensuring that the needs of the most vulnerable are met, for example. In a different context, the United Kingdom underscored the importance of working with willing adapters such as entities with a "public face" (e.g. nature conservation agencies and utility companies) to build confidence and experience.

41. Colombia provided an example of strategies to engage stakeholders in adaptation. Recognizing the near-term nature of political interest, the organizers of the country's Integrated National Adaptation Plan (INAP) ensured that the objectives of pilot projects included short-term outcomes as well as long-term goals. This resulted in the active participation of decision makers in the INAP process. In addition, in order

to encourage mayors to share their experiences in managing current climate variability under the INAP, thematic groups (e.g. on issues related to coastal urban centres) were established. With the prospect of gaining useful insights that could help them in their own work, mayors were given an incentive to participate.

#### *Relevant information*

42. Participants shared experiences in engaging stakeholders through the development and provision of relevant information and through effective communication. Critical to the success of this is to be mindful of the background and interests of the stakeholder group. Participants underlined the importance of speaking in language that makes sense to stakeholders and addresses their day-to-day concerns. For example, it might be more helpful to talk to practitioners and policymakers about disaster management, economics and poverty, as opposed to climate risk management. Similarly, it is easier for most stakeholders to understand the implications of changes in frequency and intensity, rather than return periods, of heavy rainfall events.

43. Practical Action stated that, if provided at the appropriate level of technical detail and in the right format, technical guidance and information does get taken seriously and acted upon by stakeholders. New Zealand, the United Kingdom and Practical Action also mentioned that inviting and incorporating input and comments from stakeholders is an effective way to ensure the relevance of technical guidance and information.

#### *Flexible and adaptive planning to manage uncertainties associated with climate change*

44. The cascade of uncertainties related to climate change and its biophysical and socio-economic impacts has often been a deterrent to adaptation actions being taken. This is particularly the case when several pressing social and economic challenges compete for limited resources. However, decision-making under uncertainty is not alien to policymakers, resource managers, development practitioners, business leaders or indeed farmers – managing uncertainty has always been part of the decision process. The challenge is to interpret and manage climate change uncertainty in a way that is based on and guided by the science.

45. Participants shared views on and good practices in effective decision-making in the face of an uncertain future climate. Cuba highlighted the importance of building on strategies for managing current climate variability for planning adaptation to climate change. New Zealand, the United Kingdom and the United Nations Development Programme (UNDP) noted the value of no-regrets options, scenario planning and incorporating review points into planning cycles and adaptive management strategies, to allow for adjustment in the planning process as new information becomes available.

### **C. Opportunities and enabling factors for integrating approaches to adaptation planning**

#### **1. Growing public and policy support, and willing adapters**

46. Despite the fact that political and public support for adaptation is not always forthcoming, participants shared positive reports of growing public awareness and increasing policy support, which serve as catalysts for effective adaptation planning efforts and the integration of approaches thereof. In Bangladesh, for example, the Government has allocated a significant share of its national budget to support adaptation activities, rather than waiting for resources to be made available by international donors; on the subject of awareness, Cuba cited the high level of public education and awareness in natural disasters as a key contributor to the successful disaster risk reduction efforts in the country. The Chair of the LEG told the workshop that, despite the limited funds currently available under the Least Developed Countries Fund (LDCF) to support NAPA implementation, bilateral donors and national governments have shown interest in supporting the implementation of NAPA activities.

47. UNDP also noted that stakeholders, particularly those in decision-making positions, are interested in moving forward from conducting studies and preparing reports to carrying out concrete adaptation actions. In terms of taking practical action, the United Kingdom reported that a large number of local authorities and public- and private-sector entities charged with delivery of public services are undertaking a wide range of voluntary adaptive measures in the country. Concrete actions like these are invaluable in building public confidence and trust as well as generating knowledge about the process of adaptation.

48. Among these stakeholders, women in particular have great potential as agents of change. Many women in rural areas stay at home when men leave to find work in urban areas, and are left to both care for and lead their communities. The same is true in conflict areas and during crises, and women involved in traditional medicine and religion at the community level are often seen as powerful leaders in their communities. In such cases, women can be effective agents in leading their communities to deal with the effects of climate change.

## 2. Commonalities between different approaches to adaptation planning

49. Among the various approaches to adaptation planning, participants identified several areas of commonality that could be exploited to facilitate integration. Firstly, the same stakeholders are often involved in different adaptation planning approaches. They include vulnerable communities, governments at different levels, public-sector entities, NGOs, academia and donor agencies. These stakeholder groups could help to ensure that adaptation planning occurs in an integrated manner.

50. Secondly, there are overlaps between the objectives of adaptation planning, effective resource management and sustainable development – they all share the same goals of enhancing the resilience of human and natural systems in the face of climate change. Participants noted the opportunities for decision makers with sector-specific responsibilities to look outside sector boundaries and consider cross-sector links in order to identify co-benefits of integrated adaptation measures.

## 3. Catalytic potential of non-governmental organizations

51. While acknowledging the fundamental role of governments in creating an enabling policy environment and providing financial and legislative support, participants highlighted the potential of NGOs and special groups to facilitate integrated adaptation planning. NGOs, including those working at community and local level, possess a wealth of on-the-ground experience and tested methods of working within different socio-economic and ecological contexts. Practical Action pointed to its experiences of acting as a broker between vulnerable communities and local governments through the provision of technical guidance and information. FAO advocated decentralizing adaptation to NGOs with local representations and operational experience.

## 4. Wider ongoing processes

52. Participants mentioned a wide range of ongoing regional, national and subnational processes that are conducive to the integration of adaptation planning. These processes often provide opportunities for advocacy and awareness-raising, as well as for coordination and collaboration to facilitate effective adaptation planning and its integration across different approaches and into broader development processes.

53. At regional level, the European Union white paper on adapting to climate change, launched in April 2009, facilitates integration and coordination among European Union member States, while acknowledging that most adaptation actions need to take place at national and subnational level. In the Pacific, the institutional processes established under the Pacific Islands Climate Change Assistance Programme and the Pacific Climate Change Roundtable have been an effective mechanism for engaging stakeholders in joint adaptation planning and its integration across sectors and at different levels.

54. At national level, reviews of policies and regulatory instruments, Strategic Environmental Assessment, EIAs and other policy frameworks were all identified as possible entry points for adaptation planning and its integration. In Argentina, as part of efforts to implement the Hyogo Framework for Action,<sup>9</sup> the La Plata Platform, a new initiative coordinated by the Ministry of Foreign Affairs, has been established to engage around 50 governmental agencies (e.g. the fire department and the civil protection agency) and other relevant entities to work together to respond to droughts and floods. Colombia and the United Kingdom, meanwhile, both reported on the opportunities for integrating adaptation planning into development processes through the review of relevant development policies and regulatory instruments.

55. As discussed in paragraph 32 above, the national communications and NAPA processes provide considerable opportunity for advancing the integration of adaptation planning approaches. Because of these processes, multi-sectoral committees and technical teams are now in place in most Parties not included in Annex I to the Convention, including LDCs. Institutional and technical modalities have been developed to encourage community participation, to promote synergies between adaptation and key development policies and strategies (e.g. poverty reduction strategy papers, Millennium Development Goals, etc.), and to ensure that any ensuing adaptation plans and programmes are country-driven.

56. At subnational and local level, adaptation planning and its integration often take place within the context of assessing the risk of a development project portfolio, and as part of initiatives to build the resilience of livelihoods. UNDP and many donor agencies have now developed organizational procedures to routinely screen project portfolios to identify climate risks and plan for adaptation. FAO links adaptation planning with resilience building of vulnerable communities through the development of social safety nets (e.g. public works and urgency funds) and local institutions (e.g. self-help groups and cereal banks).

57. There is also a considerable body of knowledge and expertise in location-, sector-, and hazard-specific risk management. Through collaboration between the different experts involved, this body of knowledge could inform and support planning for adaptation and its integration. In this regard, the United Nations “Delivering as One” initiative provides an effective platform for United Nations specialized agencies to collaborate at country level to support climate change adaptation planning through country teams, and to support the integration of adaptation planning into the United Nations Development Assistance Framework.

#### **D. Barriers and challenges in advancing the integration of approaches to adaptation planning**

##### **1. Scientific uncertainties as a deterrent to public engagement and decision-making**

58. Participants acknowledged that the wide array of uncertainties associated with climate change and its social, economic and environmental implications can pose a challenge to adaptation and its integration into broader planning and policy. Stakeholders, particularly those at subnational and local levels, often feel uncomfortable with being engaged in discussions about uncertain situations. Particularly if there is substantial cost involved, those held accountable are unlikely to invest in adaptation action that does not generate near-term benefits. This applies to both public- and private-sector decision-making.

59. In other cases, policymakers and decision makers are presented with vague or contradictory messages and are hence reluctant to take any action. China illustrated this point using an example of the different directions of change in crop yields that are predicted under different assumptions about future climate change and the effect of enhanced carbon dioxide fertilization. In addition to the uncertainty itself, the general perception is that adaptation to climate change is a highly technical issue and should be left to specialists and technical experts. This has been reflected in the much lower level of public participation in adaptation actions compared with mitigation, especially at community and local level, as noted by the United Kingdom.

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<sup>9</sup> <<http://www.unisdr.org/eng/hfa/hfa.htm>>.

## 2. Insufficient knowledge, information and data, and inadequate technical capacity

60. Gaps in the provision of relevant data, information and knowledge, and inadequate technical expertise to access, analyse and apply it, remain a barrier. Participants highlighted the need to make available information and knowledge that is context-specific, at an appropriate spatial and temporal scale and digestible by the targeted stakeholders. In particular, it was noted that results from cost–benefit analyses are not always the most helpful source of information for assessing and prioritizing adaptation options. In addition to the highly uncertain nature of the analytical methods and cost–benefit estimates, quantitative analyses often overlook simpler and more economical “soft” adaptation options (e.g. organizational capacity-building, change in management practices, etc.).

61. On the subject of the dissemination of information and knowledge, it was noted that local communities have limited access and may rely on intermediaries to provide them with information. The failure of information and knowledge products to filter down to those in need can also be a result of language barriers and inappropriate formats. Bangladesh reported that the national Government undertook to provide manuals on preventive action to manage flood risks in local communities, but that the very low level of literacy and absorptive capacity within these communities hindered the success of the scheme. The local language is always the preferable option, and alternative media to printed or electronic products, such as radio, drawings and maps, could be used to disseminate information among communities with low literacy levels.

## 3. Gaps in institutional capacity, coordination and cooperation

62. Gaps in institutional capacity to develop, implement and monitor relevant regulatory and legal mechanisms are part of the institutional barriers that affect integrated adaptation planning. In addition, the current sector-oriented budgeting system within many national governments creates a territorial mentality within public and private institutions. This leads to a lack of appreciation and promotion of coordination and cooperation across departments and sectors.

## 4. Insufficient financial support

63. There was general agreement among participants that a lack of funding not only prevents the implementation of strategies, policies and concrete adaptation actions, it is also a root cause of many other barriers to integration. These include gaps in information and knowledge, technical and institutional capacities, and coordination and collaboration among institutions. Financial resources need to be significantly increased to meet the need for funding, particularly in the most vulnerable developing countries.

64. In addition to the insufficiency of financial support, gaining access to existing funds, such as those created under the UNFCCC process, has proven highly complex, time-consuming and resource-intensive for many. Participants noted that unless the issue of financial support is adequately addressed, efforts in advocacy and policy advice for integrated adaptation planning will have only limited effects.

# IV. Summary of recommendations

65. Based on the presentations and discussions, and reflecting the priority areas of work identified, a wide range of recommendations were made with a view to advancing the work on adaptation planning. These recommendations are described in this chapter.

## **A. Enhance the knowledge base and improve access to relevant knowledge and information**

66. Participants noted that significant efforts need to be made to fill the gaps in the provision and dissemination of relevant knowledge and information. There are three key areas of work, outlined in paragraphs 67–74 below.

### **1. Targeted information and knowledge products**

67. Despite the reliance of human socio-economic systems on the goods and services provided by healthy ecological systems, the knowledge and understanding of how ecosystems connect the well-being of natural and human systems and how climate change affects these interactions and feedback mechanisms is limited, and targeted research is required. In addition, further work is needed to enhance the ongoing monitoring and identification of climate-related risks through hazard mapping.

68. There was a strong call for efforts to document and disseminate case studies and good practices in integrated adaptation planning in order to accelerate the learning process and to build confidence among stakeholders, particularly practitioners and decision makers. UNDP noted that implementation of 21 LDCF projects addressing 66 priorities identified in NAPA documents is under way, and there is considerable scope for generating knowledge products based on good practices and lessons learned from these projects. Participants also suggested the need to develop a compendium of adaptation options, including locally relevant adaptive technologies and techniques, to provide a menu of possible actions.

### **2. Existing, local and traditional knowledge**

69. As discussed in chapter III C above, there is a large body of relevant information, knowledge and expertise that could facilitate integrated adaptation planning. The challenge is to identify and place it in the right context.

70. From coping with past and present climate variability, local communities have accumulated important knowledge and expertise, which forms an integral part of the knowledge base that supports adaptation decision-making. Furthermore, local and traditional knowledge can inform and validate national and regional plans. However, such knowledge is rarely documented or shared. Efforts are required so that existing knowledge, including knowledge from local communities, is more systematically documented and more widely disseminated.

71. Also, without appropriate facilitation and encouragement, local communities feel their knowledge and experience is no longer relevant when ‘high-tech’ information (e.g. climate scenarios) is presented to them. Involving these stakeholders in different approaches can help to ensure that adaptation planning is coherent and well integrated; and regularly identifying, documenting and promoting local and traditional knowledge should be given equal attention to the generation and dissemination of formal and scientific knowledge.

### **3. Dissemination and sharing of information and knowledge**

72. At this early stage of integrated adaptation planning, sharing of knowledge and experiences is essential to maximize the benefit of early efforts. Knowledge sharing and learning could take place at various levels in several forms. Countries that are within the same geographical region and have the same set of socio-economic circumstances or biophysical features can share and learn from each others’ experiences. Similarly, practitioners working in the same fields (e.g. nature conservation, local authorities, insurance, etc.) can help each other better adapt to climate change by learning from their respective good practices and avoiding maladaptation.

73. In addition, information exchange and knowledge sharing needs to be facilitated between different stakeholder groups. For example, findings and lessons learned from demonstration projects need to be fed

back into the policy process. This can ensure that policies address factors other than climate change to promote overall resilience.

74. In a number of areas, then, well-coordinated and sustained efforts are needed to facilitate knowledge sharing and learning.

### **B. Create an enabling policy environment**

75. Enabling policy guidance and legislative frameworks, particularly those at national level, are needed not only to engage stakeholders at subnational and local level, but also to ensure the effective implementation of adaptive measures. Policy instruments can enforce, as opposed to simply hope for, the integration of adaptation into sectoral planning and development processes.

### **C. Enhance institutional and technical capacities**

76. Discussions at the workshop identified the need for further enhancement of institutional and technical capacities for integrated adaptation planning. UNDP suggested that climate change focal points from different government departments could be trained through secondment assignments to the ministry that coordinates national adaptation activities. Likewise, capacities of government departments could be enhanced through joint activities in project preparation, delivery and analysis, each with clearly defined roles and responsibilities. At the other end of the institutional spectrum, local communities, particularly vulnerable groups such as poor women and children, need support to access information and knowledge products and to actively participate in decisions. SPREP underlined the importance of building capacity at the grassroots, which, if managed well, encourages deeper engagement of stakeholders and fosters local adaptation initiatives.

77. Participants also mentioned a range of technical areas in which capacities need to be enhanced. These include the understanding and application of relevant guidelines and planning tools and technologies for adaptation, and the application of programme-based approaches to the integration of adaptation planning across economic sectors.

### **D. Enhance the provision and delivery of financial resources**

78. As noted by Ghana, unless financial resources are in place, adaptation planning cannot be completed. However, there is a severe deficit in the provision of financial resources. According to the Chair of the LEG, the 750 or so projects identified by 43 LDCs in NAPAs submitted by September 2009 required USD 1.7 billion to be implemented – yet only USD 176 million was currently available in the LDCF for these projects. Significant additional funding is needed to address these adaptation needs. In addition, procedures for accessing the funds need to be simplified and streamlined.

## **V. Issues for follow-up and further consideration**

### **A. Current and planned actions by Nairobi work programme partners**

79. Through presentations and interventions during the workshop, a group of partner organizations of the Nairobi work programme provided details of relevant ongoing and/or planned initiatives, which aim to promote and facilitate the integration of approaches to adaptation planning by addressing barriers and challenges identified or implementing recommendations made.

80. To address the need for better provision, dissemination and application of climate information and services, the World Meteorological Organization is taking the lead in a new Global Framework for Climate Services (GFCS), one of the key outcomes of the World Climate Conference 3 held earlier in 2009. The GFCS will provide an interface between the providers and users of climate information and services,

and help to strengthen initiatives in observations, monitoring, research, modelling and prediction. A detailed plan for the GFCS will be delivered in 2011.

81. Recognizing the vulnerability of cities and towns, particularly those in LDCs, and the significant role of local authorities in adaptation, ICLEI–Local Governments for Sustainability pledged to work with local governments and cities to move the adaptation agenda forward. One initiative is to organize and host a conference on “Resilient Cities” just before SBSTA 32. To raise awareness among stakeholders who are not yet engaged in addressing climate change issues in the public health sector, and to widen knowledge on climate change and human health, the World Health Organization has been leading a number of capacity-building, research and policy advocacy and advice efforts. These efforts are within the framework of the World Health Assembly resolution on climate change and health, adopted in May 2008.<sup>10</sup>

82. Aiming at strengthening the knowledge base and support for adaptation, the United Nations Environment Programme pledged to facilitate the development and implementation of the Global Adaptation Network (GAN). This will facilitate knowledge sharing and provide knowledge and advisory services, technology support and institutional capacity development. A detailed project proposal and a pilot phase of the GAN are currently under way, and the GAN should be fully operational by 2014.

83. The Organisation for Economic Co-operation and Development highlighted its adaptation-related work, which focuses on integrating adaptation planning into development, developing and disseminating methods and tools, and carrying out socio-economic analyses of climate change impacts and adaptation. It is also working on ways to help development practitioners assess the risk and climate resilience of development assistance programmes.

84. As its first action pledge under the Nairobi work programme, Resources for the Future is developing a Global Adaptation Atlas.<sup>11</sup> The Atlas aims to aid in the identification of adaptation priorities by donor organizations and other investors, through the provision of spatial information (i.e. mapping) of impacts of and vulnerability to climate change. The Atlas also provides highlights of research into climate change impacts, vulnerability and adaptation. The first phase of the Atlas was launched during the fifteenth session of the Conference of the Parties.

85. To address the challenge of providing technical information and advice to stakeholders at local level, FAO has been collaborating with farmers to identify viable adaptive actions and to integrate them into policies and practices aimed at food security.

86. SPREP informed the workshop that some ancillary activities, including modelling work in collaboration with the United Nations Institute for Training and Research, are ongoing in connection with Pacific Adaptation to Climate Change (PACC), a major adaptation project in the Pacific region. It noted that there could be opportunities for documenting and learning from some of the wide-ranging activities in the PACC project.

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<sup>10</sup> <[http://www.who.int/globalchange/A61\\_R19\\_en.pdf](http://www.who.int/globalchange/A61_R19_en.pdf)>.

<sup>11</sup> <<http://www.adaptationatlas.org>>.

**B. Possible next steps under the Nairobi work programme**

87. To address the gaps and needs identified during the workshop, suggestions were made by the participants for a number of specific activities to be undertaken under the Nairobi work programme, with the guidance of the Chair of the SBSTA. These include:

- (a) The development of a compendium of adaptation options, including locally relevant technologies and techniques. This effort could build upon the Nairobi work programme Adaptation Practice Interface<sup>12</sup> and the Local Coping Strategy database.<sup>13</sup> Relevant information from the Adaptation Learning Mechanism online platform,<sup>14</sup> the Global Adaptation Atlas and several other key adaptation networks should be incorporated into this compendium;
- (b) The documentation and dissemination by the secretariat of case studies, good practices and lessons learned in the integration of adaptation planning approaches.

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<sup>12</sup> <<http://unfccc.int/adaptation/4555.php>>.

<sup>13</sup> <<http://maindb.unfccc.int/public/adaptation>>.

<sup>14</sup> <<http://www.adaptationlearning.net>>.