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### Subsidiary Body for Scientific and Technological Advice

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Item 3 of the provisional agenda

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

### **Summary of the results of the second phase of the implementation of the Nairobi work programme on impacts, vulnerability and adaptation to climate change for the period up to the thirty-second session of the Subsidiary Body for Scientific and Technological Advice**

**Note by the secretariat**

#### *Summary*

This summary report provides an overview of the outcomes of activities under the Nairobi work programme on impacts, vulnerability and adaptation to climate change completed during its second phase and up to the thirty-second session of the Subsidiary Body for Scientific and Technological Advice. The report contains information on the outcomes of completed activities undertaken to assist all Parties to improve understanding and assessment of impacts, vulnerability and adaptation and to make informed decisions on adaptation. It also contains information on how organizations, institutions, experts, communities and the private sector have been engaged, how adaptation actions have been catalysed and how information and knowledge products have been developed and disseminated. The report concludes with how the objective and expected outcomes of the Nairobi work programme have been achieved and with issues for further consideration, including those that could be forwarded to the Subsidiary Body for Implementation for its consideration.

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## **I. Introduction**

### **A. Mandate**

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), in its conclusions at its twenty-eighth session on the Nairobi work programme on impacts, vulnerability and adaptation to climate change, requested the secretariat to prepare a summary report on the results of the second phase of the implementation of the Nairobi work programme for the period up to SBSTA 32 for its consideration at SBSTA 33.<sup>1</sup>

2. At the same session, the SBSTA requested the secretariat to organize, under the guidance of the Chair of the SBSTA and before its thirty-third session, an informal meeting of representatives from Parties and organizations and experts<sup>2</sup> to consider the outcomes of the activities completed prior to this meeting, taking into account the summary report of the results of the implementation of the Nairobi work programme for the period up to SBSTA 28<sup>3</sup> and the expected outcomes of the Nairobi work programme outlined in paragraph 2 of the annex to decision 2/CP.11. The SBSTA further requested the secretariat to prepare a report on this meeting, to be made available to the SBSTA by its thirty-third session.<sup>4</sup>

3. The SBSTA further agreed to consider, at its thirty-third session, the outcome of the informal meeting referred to in paragraph 2 above, the summary report referred to in paragraph 1 above and new scientific information, as well as relevant activities from organizations and institutions, with a view to reviewing the effectiveness of the Nairobi work programme and reporting on its outcomes to the Conference of the Parties (COP) at its sixteenth session in accordance with decision 2/CP.11, paragraph 6 (e).<sup>5</sup>

4. In addition, the SBSTA agreed to provide at its thirty-third session relevant information and advice on the scientific, technical and socio-economic aspects of impacts, vulnerability and adaptation to climate change arising from the implementation of the Nairobi work programme for consideration by the Subsidiary Body for Implementation (SBI), following consideration by the SBSTA of the summary reports.<sup>6</sup>

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

5. In line with its conclusions from its twenty-eighth session and decision 2/CP.11, paragraph 6 (e), the SBSTA may wish to consider this summary report at its thirty-third session along with the outcome of the informal meeting and new scientific information, as well as relevant activities from organizations and institutions, with a view to reviewing the effectiveness of the Nairobi work programme and reporting on its outcomes to the COP at its sixteenth session. Subsequently it may wish to agree, *inter alia*, on relevant information and advice on the scientific, technical and socio-economic aspects of impacts, vulnerability

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<sup>1</sup> FCCC/SBSTA/2008/6, paragraph 20.

<sup>2</sup> The meeting is to be held from 28 to 30 September 2010 in Manila, the Philippines. The relevant documentation is available at <<http://unfccc.int/5706.php>> and the meeting report will be contained in document FCCC/SBSTA/2010/12.

<sup>3</sup> The summary report is contained in document FCCC/SBSTA/2008/12.

<sup>4</sup> FCCC/SBSTA/2008/6, paragraph 24.

<sup>5</sup> FCCC/SBSTA/2008/6, paragraph 25.

<sup>6</sup> FCCC/SBSTA/2008/6, paragraph 22.

and adaptation to climate change arising from the implementation of the Nairobi work programme to be provided to the SBI for its consideration.

### **C. Background**

6. Following their consideration of the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) and their acknowledgement that adaptation is a necessity for all countries, Parties to the Convention requested the SBSTA to initiate work on the scientific, technical and socio-economic aspects of adaptation to climate change (decision 10/CP.9). At COP 10, Parties decided to elaborate a five-year work programme under the SBSTA (decision 1/CP.10). After additional deliberations at COP 11, Parties adopted the five-year programme of work of the SBSTA on impacts, vulnerability and adaptation to climate change and specified its objective, expected outcomes and scope of work (decision 2/CP.11).

7. A comprehensive set of activities<sup>7</sup> up to SBSTA 28 was agreed upon at SBSTA 25, which was held in Nairobi, Kenya. The COP, at its twelfth session, decided to rename the programme as the Nairobi work programme on impacts, vulnerability and adaptation to climate change.

8. The overall objective of the work programme is to assist all Parties, in particular developing countries, including the least developed countries (LDCs) and small island developing States (SIDS), 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>8</sup>

9. At its twenty-eighth session, the SBSTA agreed on further activities<sup>9</sup> for inclusion in the Nairobi work programme up to COP 16, taking into account views of Parties on further activities, the outcome of the informal meeting of representatives from Parties on the outcomes of completed activities under the Nairobi work programme,<sup>10</sup> the outcomes of additional activities completed by that session, information presented in the Fourth Assessment Report of the IPCC and other new scientific information, as well as relevant activities from international and regional institutions.

10. Financial contributions towards the implementation of the second phase of the Nairobi work programme were provided by Austria, Canada, the European Commission, France, Germany, Japan, New Zealand, Norway, Spain, Switzerland and the United Kingdom of Great Britain and Northern Ireland. In addition, the Governments of Cuba, Egypt, Samoa, Spain and Thailand, and the United Nations International Strategy for Disaster Reduction contributed by hosting or collaborating on activities under the Nairobi work programme. Experts and representatives of relevant organizations contributed their time and expertise.

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<sup>7</sup> FCCC/SBSTA/2006/11, paragraphs 13–71.

<sup>8</sup> Decision 2/CP.11, annex, paragraph 1.

<sup>9</sup> FCCC/SBSTA/2008/6, paragraphs 10–74.

<sup>10</sup> The meeting was held in Bangkok, Thailand, from 7 to 9 April 2008 and the meeting report is contained in document FCCC/SBSTA/2008/5.

## D. Scope of the note

11. The first summary report, referred to in paragraph 2 above, outlined the approach to the implementation of activities under the Nairobi work programme during its first phase, that is, undertaking specific activities; engaging stakeholders and catalysing adaptation action; and ensuring that the activities and deliverables target stakeholders at all levels and across all sectors through user-friendly information products.

12. The activities and approach to the implementation of the second phase built upon the results of the first phase. Activities and associated results are captured as follows:

- (a) Chapter II: Undertaking specific activities;
- (b) Chapter III: Engaging stakeholders and catalysing adaptation action by organizations, institutions, experts, communities and the private sector in support of the Nairobi work programme;
- (c) Chapter IV: Developing and disseminating information and knowledge products.

13. The final chapter (chapter V) outlines conclusions and issues for further consideration, including relevant information and advice on the scientific, technical and socio-economic aspects of impacts, vulnerability and adaptation to climate change arising from the implementation of the Nairobi work programme for the SBI as well as to the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) and the Adaptation Fund Board, where appropriate.

## II. Undertaking specific activities

14. Based on the results and recommendations from the first phase, the second phase saw the implementation of many activities that addressed more than one of the nine areas of work of the Nairobi work programme and a focus on the second part of the objective of the Nairobi work programme, namely assisting Parties in making informed decisions on practical adaptation actions and measures.<sup>11</sup> For each set of activities, an overview of the current status and lessons learned and of the gaps, needs and challenges identified is provided. Where a technical workshop was held, a summary of the recommendations is provided. More comprehensive information can be found in specific outputs, such as in the reports on the workshops.

### A. Promoting further research

15. As mandated by the SBSTA at its twenty-eight session, greater consideration was given to research on adaptation during the research dialogues at SBSTA 30 and 32 between Parties and regional and international climate research programmes and organizations.<sup>12</sup> Efforts undertaken by the research programmes and organizations relevant to supporting the work on adaptation include: contributing to the development of climate information systems to support informed decision-making; undertaking vulnerability analyses of climate change impacts in key areas, including terrestrial and marine ecosystems; research capacity-building activities, particularly in developing countries; and regional and

<sup>11</sup> Even though the technical workshop on costs and benefits of adaptation options was held after SBSTA 32, it has been included in this summary because it was originally scheduled to take place before SBSTA 32, from 20 to 22 April. It had to be postponed because of severe flight disruption caused by the volcanic ash cloud over European airspace from 14 to 21 April 2010.

<sup>12</sup> FCCC/SBSTA/2008/6, paragraphs 67 and 68.

international research cooperation. Regarding future priorities to be addressed by the research communities, Parties highlighted issues relating to uncertainties, regional impacts and modelling, alternative pathways and impacts associated with different limits in temperature increases.<sup>13</sup>

16. In response to the mandate from the same session,<sup>14</sup> the IPCC Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA) has enhanced its outreach and sharing of information on the development of new scenarios. These new scenarios for climatic, non-climatic environmental and socio-economic variables are being developed for the fifth assessment cycle of the IPCC. TGICA has considered the needs for scenario data as identified by Parties and relevant organizations under the Nairobi work programme and has provided updates on these activities and associated outcomes to Parties through the Nairobi work programme, for example through participation in technical workshops.

## **B. Costs and benefits of adaptation options**

17. Activities undertaken included the preparation of a technical paper reviewing the existing literature on the potential costs and benefits of adaptation options;<sup>15</sup> submissions by Parties and relevant organizations on efforts undertaken to assess the costs and benefits of adaptation options;<sup>16</sup> the preparation of a synthesis report based on these submissions and other relevant sources;<sup>17</sup> and a technical workshop on costs and benefits of adaptation options.<sup>18</sup>

18. Evaluating the costs and the benefits of adaptation options constitutes an important part of the adaptation policy cycle, as it can facilitate the identification of appropriate adaptation practices and measures and the avoidance of maladaptation. Assessments of the costs and benefits of adaptation options are undertaken at different levels, depending on the policy questions that they are meant to address, and using a variety of methodologies, including: computable general equilibrium model analysis; investment and financial flow analysis; and economic appraisal methods, including cost-benefit analysis, cost-effectiveness analysis and multicriteria analysis.

19. In order to strengthen assessments and their application in the overall adaptation policy cycle, the following actions were suggested during the workshop: enhance country-led analyses of costs and benefits of adaptation options through using methodologies tailored to national circumstances; choose methodologies pragmatically, taking into account the need to ensure the robustness of the methodology, compatibility with other decision-supporting methodologies employed and proportionality; review previous economic assessments, including as to how they influenced policy outcomes; and promote national adaptation programme of action (NAPA) like processes for the non-LDC developing countries that wish to implement them.

20. In addition, it was recommended that methodologies be advanced, sharing of knowledge and information be enhanced, and capacity-building, awareness-raising and enabling environments be promoted.

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<sup>13</sup> More information on the research dialogues, including the Chair's summaries, are available at <<http://unfccc.int/3461.php>>.

<sup>14</sup> FCCC/SBSTA/2008/6, paragraph 46.

<sup>15</sup> FCCC/TP/2009/2/Rev.1.

<sup>16</sup> FCCC/SBSTA/2009/MISC.9/Rev.1.

<sup>17</sup> FCCC/SBSTA/2010/3.

<sup>18</sup> The workshop was held in Madrid, Spain, from 22 to 24 June 2010. Information is available at <<http://unfccc.int/5283.php>>. The workshop report is contained in document FCCC/SBSTA/2010/9.

### **C. Integrating and expanding adaptation planning and action at the national, subnational, community and local levels**

21. Activities undertaken included submissions from Parties and relevant organizations on approaches to and experiences in integrating and expanding adaptation planning and action;<sup>19</sup> the preparation of a synthesis report based on these submissions and relevant sources, including experiences gained during the NAPA process;<sup>20</sup> and the organization of 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.<sup>21</sup>

22. To address the wide range of climate change impacts within different contexts, adaptation stakeholders have developed a variety of approaches to adaptation planning, including 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) or addressing the vulnerability of local communities, such as farming communities (i.e. a community-based approach).

23. Participants at the technical workshop considered efforts aiming at integrating these approaches, since no single adaptation planning approach is sufficient to address the array of complex situations where adaptation takes place. 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).

24. With regard to overcoming barriers constraining the integration and expansion of adaptation, recommendations made at the workshop include: enhancing the knowledge base and improving access to relevant knowledge and information; creating an enabling policy environment; enhancing institutional and technical capacities; and enhancing the provision and delivery of financial resources.

### **D. Integrating disaster risk reduction into national policies and programmes**

25. Activities undertaken included the preparation of a technical paper on physical and socio-economic trends in climate-related risks and extreme events in the context of their implications for sustainable development;<sup>22</sup> the preparation of a technical paper on integrating practices, tools and systems for climate risk assessment and management and strategies for disaster risk reduction (DRR) into national policies and programmes;<sup>23</sup> and a technical workshop on integrating practices, tools and systems for climate risk assessment and management and disaster risk reduction strategies into national policies and programmes.<sup>24</sup>

26. Climate change impacts, especially extreme events, and socio-economic trends are compounding each other to undermine sustainable development and the ability to achieve

<sup>19</sup> FCCC/SBSTA/2009/MISC.4.

<sup>20</sup> FCCC/SBSTA/2009/6.

<sup>21</sup> The workshop was held in Bangkok, Thailand, from 12 to 14 October 2009. Information on this workshop, including a concept note and copies of presentations made, is available at <<http://unfccc.int/4915.php>>. The workshop report is contained in document FCCC/SBSTA/2010/2.

<sup>22</sup> FCCC/TP/2008/3.

<sup>23</sup> FCCC/TP/2008/4.

<sup>24</sup> The workshop was held in Havana, Cuba, from 10 to 12 March 2009. Information is available at <<http://unfccc.int/4742.php>>. The workshop report is contained in document FCCC/SBSTA/2009/5.

the United Nations Millennium Development Goals in many developing countries, in particularly LDCs and SIDS, through increased poverty, loss of livelihoods and compromised health care and education provision. There is a need for DRR, which is concerned with near-term risk reduction, and adaptation, which takes a long-term perspective focusing on adaptive capacity and policy development, to be integrated into development planning. Unless they are 'internalized' within the development planning process, the outcomes of DRR and adaptation will be limited and difficult to sustain.

27. Underpinning both DRR and adaptation strategies are generic approaches to integration that appear to be applicable across a range of hazards, sectors and governance levels. These include engaging stakeholders, establishing multi-stakeholder committees, validating and using indigenous knowledge, and multi-hazard, multi-sector and adaptive management approaches. Despite the growing recognition of the need for integrating DRR and adaptation into the policy mainstream, gaps and barriers remain, including insufficient political buy-in, compartmentalization of operations, lack of financial resources, and gaps in capacity, knowledge and information.

28. Recommendations to further enhance integration include: creating an enabling policy environment, for example through the provision of incentive mechanisms; improving availability, accessibility and relevance of knowledge and information; developing and disseminating practical methods and tools; engaging and communicating with multiple stakeholders; adopting a pragmatic approach to managing uncertainties; and further enhancing regional cooperation and networks.

## **E. Increasing economic resilience to climate change and reducing reliance on vulnerable economic sectors**

29. Building upon activities undertaken during the first phase of the Nairobi work programme, including submissions and a synthesis report on economic diversification,<sup>25</sup> activities undertaken during the second phase included submissions from Parties and relevant organizations on examples of measures, methodologies and tools on increasing economic resilience to climate change and reducing reliance on vulnerable economic sectors and the organization of a technical workshop<sup>26</sup> with a view to promoting understanding and the development and dissemination of measures, methodologies and tools for increasing economic resilience.

30. Climate change poses significant challenges to economic activities and livelihoods, in particular to economies in developing countries, which often depend largely on natural climate-sensitive resources. One strategy for spreading or reducing risk is economic diversification, aimed at lessening exposure and increasing options for adapting to climate change and thus increasing the resilience of economies.

31. In order to facilitate the development of coherent options to build economic resilience to climate change, it was suggested that multi-stakeholder participation be promoted, buy-in for economic development strategies at all levels and for all sectors be facilitated, and the integration of economic and social concerns into national development plans be promoted.

32. Other recommendations included: strengthening the institutional and technical capacity for economic risk management; promoting the documentation and dissemination

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<sup>25</sup> Submissions are compiled in documents FCCC/SBSTA/2007/MISC.15 and Add.1 and FCCC/SBSTA/2007/MISC.16. The synthesis report is contained in document FCCC/SBSTA/2007/14.

<sup>26</sup> The workshop was held in Cairo, Egypt, from 28 to 30 April 2009. Information is available at <<http://unfccc.int/4781.php>>. The workshop report is contained in document FCCC/SBSTA/2009/7.



of good practices, measures and tools; strengthening existing modalities for regional and international cooperation, including increasing access to the expertise of specialized intergovernmental agencies and international organizations and centres of excellence; and encouraging the creation of regional economic groups, where appropriate.

## F. Technologies for adaptation

33. Having acknowledged the previous work undertaken by the Expert Group on Technology Transfer (EGTT) on technologies for adaptation, the SBSTA requested the group to take into account outcomes from the Nairobi work programme up to SBSTA 28 for consideration under relevant aspects of its work programme for 2008–2009.<sup>27</sup>

34. As part of its work programme, the EGTT developed performance indicators to monitor and evaluate the effectiveness of the implementation of the technology transfer framework, including with regard to technologies for adaptation;<sup>28</sup> identified future financing for enhancing the development, deployment, diffusion and transfer of technologies under the Convention;<sup>29</sup> and developed a strategy paper for the long-term perspective beyond 2012 to facilitate the development, deployment, diffusion and transfer of technologies under the Convention.<sup>30</sup>

35. The particular needs and technological issues associated with adaptation are being addressed by the United Nations Development Programme in partnership with the secretariat within the updated *Handbook for Conducting Technology Needs Assessment (TNA) for Climate Change*, which will be published in the second half of 2010. The second synthesis report on technology needs identified by Parties not included in Annex I to the Convention (non-Annex I Parties) comprising 70 TNAs revealed that the most commonly identified technology needs for adaptation were related to crop management, efficient water use, improved irrigation systems, early warning systems for forest fires, technologies for afforestation and reforestation, and technologies to protect against and accommodate rises in sea level.<sup>31</sup>

## G. Monitoring and evaluation of adaptation projects, policies and programmes

36. Activities undertaken included: submissions from Parties and relevant organizations on efforts undertaken to monitor and evaluate the implementation of adaptation projects, policies and programmes and the costs and effectiveness of completed projects, policies and programmes;<sup>32</sup> and the preparation of a synthesis report based on these submissions and other relevant sources with a view to facilitating the development of indicators for assessing the implementation of adaptation projects, policies and programmes.<sup>33</sup>

37. Given the complexity and long-term nature of climate change, it is essential that adaptation be designed as a continuous and flexible process and subjected to periodic review. The implementation of adaptation needs to be monitored, evaluated regularly and revised in terms of both the validity of the underlying scientific assumptions and the appropriateness of projects, policies and programmes. Monitoring and evaluation may take

<sup>27</sup> FCCC/SBSTA/2008/6, paragraph 70.

<sup>28</sup> FCCC/SB/2009/4.

<sup>29</sup> FCCC/SB/2009/2.

<sup>30</sup> FCCC/SB/2009/3.

<sup>31</sup> FCCC/SBSTA/2009/INF.1.

<sup>32</sup> FCCC/SBSTA/2009/MISC.10.

<sup>33</sup> FCCC/SBSTA/2010/5.

place through the use of indicators, which can be developed to focus on either of two aspects of monitoring and evaluating adaptation: to facilitate monitoring of progress in developing and implementing adaptation measures in particular (process-based indicators), or to measure the effectiveness of such adaptation measures in general (outcome-based indicators).

38. As the majority of adaptation projects, policies and programmes are either under development or still under implementation and only a few have been concluded, most monitoring and evaluation efforts are currently undertaken as part of ongoing implementation. Only a few focus on evaluating projects, policies and programmes after their conclusion, and no evaluations have been undertaken several years after an adaptation measure was concluded.

39. As monitoring and evaluation of adaptation measures and the development and usage of indicators is still evolving, a number of issues need to be further investigated, including: how monitoring and evaluation of adaptation measures can make the best use of existing monitoring and evaluation systems; the kinds and combinations of process and outcome indicators that would be most suitable for monitoring and evaluating adaptation; and how results from monitoring and evaluating should be reported and disseminated so as to allow for the identification of lessons learned and the sharing of good practices.

## **H. Promoting regional centres, networks and partnerships**

40. As recognized by the SBSTA at its twenty-eighth session, regional centres and networks undertaking work relevant to climate change play an important role in enhancing adaptation through supporting adaptation planning and practices, the application of models and tools, the development of adaptation projects and their regional integration, and through providing other forms of technical support related to capacity-building and information sharing.<sup>34</sup> Activities undertaken included a technical workshop on how regional centres and networks undertaking work relevant to climate change could collaborate.<sup>35</sup>

41. Participants at the workshop recognized that existing regional centres and networks support adaptation work with diverse approaches and objectives. Given the multifaceted nature of adaptation, it was seen as unrealistic and impractical to expect any one regional centre to be capable of meeting all the needs. Identified areas which represent opportunities for furthering the promotion of and the collaboration among regional centres and networks include data, information and knowledge services and the provision of technical support.

42. Although collaborative activities are coordinated at the regional level, participants emphasized that such efforts need to effectively respond to national and subnational needs and priorities, whereby the ultimate purpose of a regional centre and network is to facilitate support for adaptation at the national and subnational levels. In this regard, it is critical for countries to establish and communicate what they wish to achieve from engaging in regional cooperation platforms and, in doing so, seek to engage the vulnerable groups whose need for support should ultimately be catered for. Challenges facing enhanced collaboration between regional centres and networks include finding a method of cooperation that will bring out synergies and avoid duplication while at the same time keeping the level of coordination low. This requires the entities concerned to reach an appropriate level of awareness of potential mutual benefits and to define and fully harness the comparative advantages of centres and entities willing to participate in and contribute to collaborative networks.

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<sup>34</sup> FCCC/SBSTA/2008/6, paragraph 31.

<sup>35</sup> The workshop was held in Apia, Samoa, from 2 to 5 March 2010. Information is available at <<http://unfccc.int/5258.php>>. The workshop report is contained in document FCCC/SBSTA/2010/8.

43. Recommendations for enhanced and more effective collaboration in the areas of knowledge management and dissemination and technical backstopping included conducting adaptation needs analyses for different regions, taking stock of activities undertaken by existing regional centres, developing regional clearing houses, exploring opportunities to use virtual centre models, holding regular face-to-face meetings, and linking regional centres and networks with ongoing climate service networks and initiatives. In addition, it was recommended that the Nairobi work programme should facilitate collaborative initiatives and interregional cooperation among regional centres and networks.

### III. Engaging stakeholders and catalysing adaptation action

44. Given that the successful implementation and achievement of the objective of the Nairobi work programme depends to a large degree on engaging stakeholders at all levels and in all sectors, the SBSTA at its twenty-eighth session agreed to continue and enhance activities aimed at:

(a) Engaging a wide range of organizations, institutions, experts, communities and members of the private sector in the implementation of the Nairobi work programme, including those active at the community level and those undertaking education, training and awareness-raising;<sup>36</sup>

(b) Enhancing outreach and fostering a dialogue and exchange of information relevant to the Nairobi work programme among stakeholders involved in impacts, vulnerability and adaptation activities;<sup>37</sup>

(c) Promoting existing networks for impacts, vulnerability and adaptation, encouraging the establishment of new networks and encouraging established networks that are currently not focused on climate change to consider impacts, vulnerability and adaptation to climate change in their work, as appropriate;<sup>38</sup>

(d) Encouraging organizations to enhance their actions in support of the objective of the Nairobi work programme, including through the submission of action pledges to the secretariat, and to make the information on the results achieved available to the SBSTA;<sup>39</sup>

(e) Encouraging organizations and institutions that are engaged in the Nairobi work programme and have national and regional representation to develop specific activities at the national and regional level in support of the objective and expected outcomes of the Nairobi work programme and to make the information on the results achieved available to the SBSTA for its consideration.<sup>40</sup>

45. The remainder of this chapter provides an overview of the different means of stakeholder engagement, including participation in specific activities, becoming a partner to the Nairobi work programme, dialogues between Parties and organizations, and expert input, and of catalysing adaptation actions, including calls for action, action pledges and updates on relevant activities.

<sup>36</sup> FCCC/SBSTA/2008/6, paragraph 26.

<sup>37</sup> FCCC/SBSTA/2008/6, paragraph 35.

<sup>38</sup> FCCC/SBSTA/2008/6, paragraph 35.

<sup>39</sup> FCCC/SBSTA/2008/6, paragraph 14.

<sup>40</sup> FCCC/SBSTA/2008/6, paragraph 30.

**A. Engaging stakeholders**

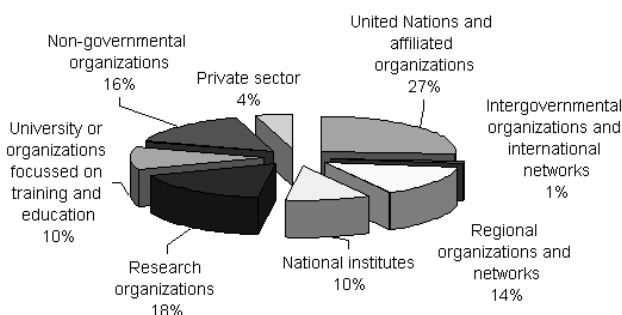
**1. Participation in specific activities**

46. The second phase continued to see an active participation of representatives of Parties, organizations, institutions, experts and communities and the private sector in the implementation of specific activities under the Nairobi work programme. While participation in technical workshops increased in comparison to the first phase of the Nairobi work programme, responses to calls for submissions decreased.

47. Eleven Parties, including those acting on behalf of the European Union, and six organizations shared their knowledge and views through four rounds of submissions. A total of 161 representatives and experts from 88 Parties (68 from non-Annex I Parties and 20 from Parties included in Annex I to the Convention) and 116 representatives from 69 organizations participated in the technical workshops.

48. In line with the SBSTA conclusions, as referred to in paragraph 44 above, the secretariat has aspired to particularly engage those stakeholders active at the community level, those undertaking education, training and awareness-raising, and those with representation at the regional and national levels. An overview of the type of organizations represented is given in figure 1 below.

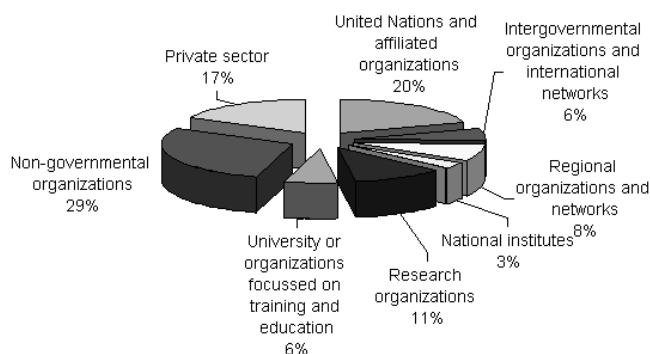
Figure 1  
**Types of organizations represented at workshops**



**2. Partners to the Nairobi work programme**

49. An additional 80 organizations joined the Nairobi work programme between SBSTA 28 and SBSTA 32, bringing the total up to 189 organizations and institutions worldwide that have demonstrated their willingness to contribute towards the objective and the expected outcomes of the Nairobi work programme and that have nominated a focal point with whom the secretariat can liaise (see figure 2 below for an overview of the types of partners).

Figure 2  
Types of Nairobi work programme partners



50. Information on partners of the Nairobi work programme is available through a dedicated website,<sup>41</sup> where information can be searched through a number of criteria, including type of organization, regional or sectoral focus and adaptation delivery activity.

### 3. Dialogues between Parties and organizations

51. Following the first forum of focal points of engaged organizations and institutions, convened by the Chair of the SBSTA at the margins of COP 13 in Bali, Indonesia, the SBSTA at its twenty-eighth session requested the secretariat to regularly organize such meetings with representatives of interested Parties during the sessions of the COP, with a view to taking stock of activities undertaken by organizations and institutions in support of the objective of the Nairobi work programme and to promoting a periodic dialogue between Parties and engaged organizations and institutions.<sup>42</sup>

52. The second forum of focal points and Parties took place on 6 December 2008, at the margins of COP 14.<sup>43</sup> Key messages emerging from the dialogue included: a recognition of the need to measure the impact of the Nairobi work programme in supporting rigorous climate risk assessment, adaptation planning and decision-making; creating additional opportunities for partners to exchange experiences and knowledge; and exploring possibilities for collaboration, such as making use of the experts and expertise available through partner organizations and establishing regional focal points.

53. The third forum took place on 4 June 2010, in conjunction with SBSTA 32,<sup>44</sup> and provided an opportunity to take stock of progress made by Nairobi work programme partners on their pledged actions and to discuss how to enhance work on integrating and expanding adaptation planning and action with a particular focus on the community level. Key messages from the dialogue included the recognition that the Nairobi work programme has been effective in engaging stakeholders, catalysing action on adaptation, and facilitating the sharing of information, knowledge, experience and practices on adaptation among partner organizations and Parties. It was highlighted that the Nairobi work programme

<sup>41</sup> <[http://unfccc.int/adaptation/nairobi\\_work\\_programme/partners\\_and\\_action\\_pledges/items/5005.php?nwp=org](http://unfccc.int/adaptation/nairobi_work_programme/partners_and_action_pledges/items/5005.php?nwp=org)>.

<sup>42</sup> FCCC/SBSTA/2008/6, paragraph 29.

<sup>43</sup> An informal report is available at <[http://unfccc.int/files/adaptation/application/pdf/fpf\\_report\\_final.pdf](http://unfccc.int/files/adaptation/application/pdf/fpf_report_final.pdf)>.

<sup>44</sup> Originally scheduled to take place at SBSTA 31 at the margins of COP 15, the focal point forum had been postponed owing to the heavy workload of delegates at that session. An informal report is available at <[http://unfccc.int/files/adaptation/application/pdf/fpf\\_summary\\_note.pdf](http://unfccc.int/files/adaptation/application/pdf/fpf_summary_note.pdf)>.

could play a more active role in fostering partnerships and in facilitating collaboration among organizations and Parties to ensure synergy and complementarity of efforts.

54. A fourth forum of Nairobi work programme focal points will take place in conjunction with SBSTA 33 at the margins of COP 16 in Cancun, Mexico.

#### 4. Expert input

55. During the second phase, the secretariat, in addition to using the broad expertise provided by experts and representatives from Parties, organizations and the expert groups, continued to seek the active engagement of individual experts to provide specific knowledge and experience to the different themes through contributing to technical papers, guiding discussions as facilitators and making technical presentations at workshops.

56. Following a recommendation from the second focal point forum, the secretariat has developed a database of experts nominated by Nairobi work programme partners to complement the UNFCCC roster of experts, which consists of experts nominated by Parties.<sup>45</sup> Information on experts in the database can be searched using a variety of criteria, including by region, sector or adaptation activity.<sup>46</sup>

57. At its twenty-ninth session, the SBSTA, in accordance with conclusions of its twenty-eighth session,<sup>47</sup> considered the possible need for a group of experts to support the implementation of the Nairobi work programme. It recognized that the UNFCCC roster of experts and the focal points of the engaged organizations and institutions provide valuable sources of expertise, invited Parties to expand the roster of experts to ensure that all areas of expertise relevant to the Nairobi work programme are represented and agreed to continue its consideration of this matter at its thirty-second session.<sup>48</sup>

58. At its thirty-second session, the SBSTA continued its consideration of the possible role that a group of experts could play in the implementation of the work programme, bearing in mind that the effectiveness of the Nairobi work programme is to be reviewed at COP 16.<sup>49</sup>

## B. Catalysing adaptation action

59. During the second phase, the secretariat, under the guidance of the Chair of the SBSTA, has further enhanced efforts in catalysing adaptation action, including through issuing calls for action that identify priority activities to further advance the implementation of the Nairobi work programme based on discussions at mandated technical workshops. Between SBSTA 28 and SBSTA 32 an additional three calls for action were issued and an additional two will be prepared by SBSTA 33.<sup>50</sup>

60. As an increasing number of stakeholders became involved over the course of the second phase, more organizations aligned their ongoing activities with priorities as reflected in calls for action and committed themselves to undertake activities towards the objective and expected outcomes of the Nairobi work programme. Up to the conclusion of SBSTA 32, 105 action pledges had been made by 44 Nairobi work programme partner

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<sup>45</sup> <[www.unfccc.int/534.php](http://www.unfccc.int/534.php)>.

<sup>46</sup> <[http://unfccc.int/adaptation/nairobi\\_work\\_programme/partners\\_and\\_action\\_pledges/items/5005.php?nwp=exp](http://unfccc.int/adaptation/nairobi_work_programme/partners_and_action_pledges/items/5005.php?nwp=exp)>.

<sup>47</sup> FCCC/SBSTA/2008/6, paragraphs 27 and 28.

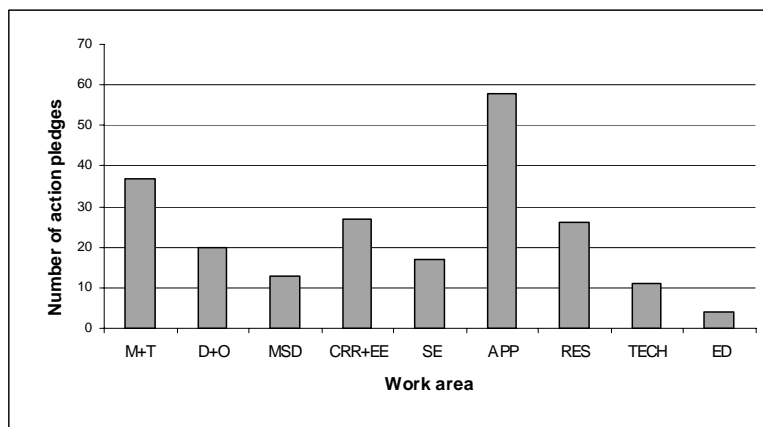
<sup>48</sup> FCCC/SBSTA/2008/13, paragraph 17.

<sup>49</sup> FCCC/SBSTA/2010/6, paragraph 18.

<sup>50</sup> Calls for action are available at <<http://unfccc.int/4430.php>>.

organizations.<sup>51</sup> Figure 3 below presents the distribution of these pledges across the areas of work under the Nairobi work programme.

Figure 3  
Overview of action pledges by work area



Abbreviations: APP = adaptation planning and practices, CRR+EE = climate-related risks and extreme events, D+O = data and observations, ED = economic diversification, M+T = methods and tools, MSD = climate modelling, scenarios and downscaling, RES = research, SE = socio-economic information, TECH = technologies for adaptation.

61. To highlight the efforts by Nairobi work programme partners in supporting Parties in achieving the objective of the work programme, the secretariat facilitated the development of a publication titled *Action Pledges: Making a Difference on the Ground*.<sup>52</sup> This publication aims to provide a succinct and user-friendly synthesis of the major outputs and impacts of action pledges, as well as key emerging good practices, lessons learned, challenges and opportunities. The content of the publication was contributed, on voluntary basis, by 24 partner organizations. A similar publication highlighting action by Nairobi work programme partners titled *Action on the Ground: A Synthesis of Activities in the Areas of Education, Training and Awareness-Raising for Adaptation* will be issued before SBSTA 33.

#### IV. Developing and disseminating information and knowledge products

62. Welcoming the wide dissemination of outputs resulting from the implementation of the Nairobi work programme to relevant stakeholders, the SBSTA at its twenty-eighth session requested the secretariat to continue, in consultation with Parties, to develop user-friendly outputs and accessible forms of disseminating these outputs, to enhance the Nairobi work programme website and to develop further activities aimed at reaching adaptation practitioners at the national and subnational levels, in particular in developing countries.<sup>53</sup>

<sup>51</sup> Information on action pledges and related updates is available at <[http://unfccc.int/adaptation/nairobi\\_work\\_programme/partners\\_and\\_action\\_pledges/items/5005.php?nwp=act](http://unfccc.int/adaptation/nairobi_work_programme/partners_and_action_pledges/items/5005.php?nwp=act)>.

<sup>52</sup> <[http://unfccc.int/resource/docs/publications/09\\_nwp\\_action\\_pledges\\_en.pdf](http://unfccc.int/resource/docs/publications/09_nwp_action_pledges_en.pdf)>.

<sup>53</sup> FCCC/SBSTA/2008/6, paragraph 34.

63. In order to improve the availability and user-friendliness of online information, the secretariat was requested by SBSTA:

(a) To provide links on the UNFCCC website to existing efforts to identify, describe, apply and make accessible terrestrial, atmospheric and oceanic data and available climatic and relevant non-climatic data and information, including socio-economic information and data on climate change impacts;<sup>54</sup>

(b) To enhance the web-based interface on adaptation practices with a view: to providing access to information on specific adaptation practices; to enabling adaptation practitioners to share information on and experiences with different adaptation practices; and to disseminating good practices and lessons learned in the implementation, monitoring and evaluation of adaptation practices;<sup>55</sup>

(c) To develop a user-friendly version of the UNFCCC “Compendium on methods and tools to evaluate impacts of, and vulnerability and adaptation to, climate change” in collaboration with relevant organizations, institutions and networks.<sup>56</sup>

64. The secretariat has worked with a large number of organizations, institutions and networks to update existing, and include new, entries in the compendium. The compendium can be searched using three criteria: sector (e.g. agriculture, forestry), theme (e.g. climate scenarios, impact assessment) and type (e.g. guidance document, modelling tool).<sup>57</sup>

65. The secretariat has continued to use different means to disseminate the deliverables and outcomes of the Nairobi work programme to different stakeholders and has created a dedicated website for the different publications and knowledge products.<sup>58</sup> The secretariat has prepared a brochure introducing the second phase of the Nairobi work programme. In addition, the secretariat developed concise leaflets introducing the Nairobi work programme and its nine areas of work. While the areas of work leaflets are available only in English, with some in Spanish, the overview leaflet is available in all six United Nations languages.

66. In addition to those general introductory publications, the secretariat also sought to develop user-friendly and highly accessible knowledge products highlighting the results of the implementation of the Nairobi work programme and targeting adaptation practitioners across levels and sectors. Besides the publications on action pledges referred to in paragraph 61 above, the secretariat published *Adaptation Assessment, Planning and Practice: An Overview from the Nairobi Work Programme on Impacts, Vulnerability and Adaptation to Climate Change*. This book synthesizes lessons learned and knowledge generated and shared on issues related to the provision of data and information, the development and application of methods and tools for impact and vulnerability assessments, and adaptation planning and practice.

67. In order to provide Parties and stakeholders with implementation updates, the secretariat:

(a) Prepared a progress report for each of the SBSTA sessions, starting from SBSTA 29, on progress made in implementing activities under the Nairobi work

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<sup>54</sup> FCCC/SBSTA/2008/6, paragraph 43. The links are available at <<http://unfccc.int/3923.php>>.

<sup>55</sup> FCCC/SBSTA/2008/6, paragraph 65. The web-based interface is available at <<http://unfccc.int/4555.php>>.

<sup>56</sup> FCCC/SBSTA/2008/6, paragraph 41.

<sup>57</sup> The compendium is available at <<http://unfccc.int/5457.php>>.

<sup>58</sup> <<http://unfccc.int/4628.php>>.



programme, including calls for action whereby endorsement of any calls for action mentioned in the report would be given by Parties;<sup>59</sup>

(b) Continued to issue an electronic newsletter every four months to update stakeholders on progress in the implementation of the Nairobi work programme.

68. Parties and organizations have continued to use their own means to disseminate the outcomes of activities undertaken in support of the Nairobi work programme. Spain, for example, has pledged to provide a Spanish translation of the technical paper on costs and benefits of adaptation options. The United Nations International Strategy for Disaster Reduction is one of many partner organizations to have translated (and disseminated) Nairobi work programme publications from English into other languages, such as Spanish and Arabic. The translation into Spanish of the UNFCCC technical paper on integrating practices, tools and systems for climate risk assessment and management and disaster risk reduction strategies into national policies and programmes is one such example.<sup>60</sup>

## V. Conclusions and issues for further consideration

69. Taking into account the activities and associated results summarized in chapters II–IV above, this final chapter elaborates on the achievement of the objective and expected outcomes of the Nairobi work programme as laid out in the annex to decision 2/CP.11. The chapter concludes with issues for further consideration.

### A. Achievement of the objective and expected outcomes of the Nairobi work programme

70. At its thirty-second session, the SBSTA invited Parties and relevant organizations to submit views and information on the effectiveness of the Nairobi work programme in fulfilling its objectives, outcomes, scope of work and modalities.<sup>61</sup>

71. In their submissions,<sup>62</sup> many Parties and organizations highlight that the Nairobi work programme has been successful in fulfilling its objective, having assisted Parties in improving their understanding and assessment of impacts, vulnerability and adaptation, and in making informed decisions on practical adaptation actions and measures to respond to climate change. Progress has also been made towards achieving the expected outcomes. In particular, according to Parties and organizations, the Nairobi work programme has proved to be an important knowledge-sharing and learning platform on adaptation and an effective mechanism for enhancing cooperation among a wide range of adaptation stakeholders, which, inter alia, is evident through the increasing number of action pledges and organizations participating in the Nairobi work programme.

72. The Nairobi work programme is being recognized as a leading resource of knowledge-sharing in the area of adaptation among a wide range of stakeholders. Owing to its unique feature of being the only multilaterally agreed initiative on the impacts, vulnerabilities and adaptation to climate change, the Nairobi work programme has provided guidance for strategic planning at the international, national and sectoral levels. Most recently, for example in the final Declaration of the Mayors Adaptation Forum 2010, mayors recognized the opportunity presented by the Nairobi work programme and called for its continuation with a view to seeking dialogue, cooperation and partnership with all

<sup>59</sup> FCCC/SBSTA/2008/6, paragraph 18.

<sup>60</sup> <[http://unfccc.int/files/adaptation/application/pdf/tp4\\_spanish\\_isdr.pdf](http://unfccc.int/files/adaptation/application/pdf/tp4_spanish_isdr.pdf)>.

<sup>61</sup> FCCC/SBSTA/2010/6, paragraph 20.

<sup>62</sup> FCCC/SBSTA/2010/MISC.8.

stakeholders.<sup>63</sup> Similarly, the International Fund for Agricultural Development (IFAD) has issued a publication titled *IFAD and the Nairobi Work Programme*<sup>64</sup> in which it outlines how IFAD can contribute to the Nairobi work programme but also how the Nairobi work programme has offered IFAD an opportunity to stimulate in-house knowledge generation on climate change adaptation, while increasing awareness, cost-effectively, of adaptation needs and best practices. Likewise, during the World Climate Conference-3, the Nairobi work programme was acknowledged as being a collaborative international system through which to share information and good practices on adaptation.<sup>65</sup>

## B. Issues for further consideration

73. While the Nairobi work programme has generated increased momentum in the adaptation community at large, Parties and organizations in their submissions have indicated ways in which this could be further enhanced. For example, it was suggested to further facilitate collaboration and coordination among stakeholders in order to catalyse more targeted actions; to increase efforts to engage Parties and practitioners from LDCs, SIDS and vulnerable groups, such as women; and to create regional or thematic partnerships focusing on water or disaster risk reduction, for example with a view to enhancing the integration of efforts and interaction among Parties, partners and other stakeholders. In the area of knowledge-sharing, it was suggested to synthesize information thematically and to disseminate products and information following sector- and region-specific approaches and to enhance outreach to stakeholders at the subnational and local level, especially through strengthened education, training and awareness-raising activities.

74. Whereas some recommendations stemming from the submissions and workshops could be addressed by Parties, partners to the Nairobi work programme and other stakeholders, Parties may wish to consider addressing some of those recommendations that relate to scientific, technical and socio-economic aspects of impacts, vulnerability and adaptation aspects under the SBSTA, possibly through an extended and/or enhanced Nairobi work programme.

75. In accordance with the annex to decision 2/CP.11 and the conclusions at SBSTA 28,<sup>66</sup> Parties may wish to consider providing the SBI with relevant information and advice on the scientific, technical and socio-economic aspects of impacts, vulnerability and adaptation to climate change arising from the implementation of the Nairobi work programme during its second phase for its consideration under relevant agenda items, as appropriate.

76. Implementation-related issues identified in technical workshops during the second phase are largely consistent with those issues identified during the first phase, and include:

(a) Enhancing institutional and technical capacities, education and training, capacity-building and awareness-raising, including in the area of assessing the costs and the benefits of adaptation options, integrative adaptation planning and strengthening economic resilience and economic risk management;<sup>67</sup>

(b) Creating an enabling policy environment, including through the provision of incentive mechanisms, policy guidance and legislative frameworks as well as the

<sup>63</sup> <[http://resilient-cities.iclei.org/fileadmin/MayorsAdaptationForum\\_BonnDeclaration\\_Final\\_20100530.pdf](http://resilient-cities.iclei.org/fileadmin/MayorsAdaptationForum_BonnDeclaration_Final_20100530.pdf)>.

<sup>64</sup> <<http://www.ifad.org/climate/climtrain/pub/nairobi.pdf>>.

<sup>65</sup> <[http://www.wmo.int/pages/gfcs/documents/wcc3\\_summary\\_report\\_web\\_EN.pdf](http://www.wmo.int/pages/gfcs/documents/wcc3_summary_report_web_EN.pdf)>.

<sup>66</sup> FCCC/SBSTA/2008/6, paragraph 22.

<sup>67</sup> FCCC/SBSTA/2009/5, paragraph 38, FCCC/SBSTA/2009/7, paragraphs 51 and 53, FCCC/SBSTA/2010/2, paragraph 76, and FCCC/SBSTA/2010/9, paragraph 72 (b) and (c).

development of legislation and implementation guidelines, to support adaptation planning and implementation across levels and sectors;<sup>68</sup>

(c) Engaging and communicating with multiple stakeholders, including from the private sector, when planning and implementing adaptation, including measures to enhance economic resilience;<sup>69</sup>

(d) Enhancing the provision and delivery of financial resources, in particular for vulnerable groups.<sup>70</sup>

77. In addition, Parties may also wish to consider, in accordance with the conclusions of SBSTA 28,<sup>71</sup> providing any relevant information and advice, as appropriate, to the AWG-LCA, with a view to providing input to discussions on enhanced action on adaptation as envisaged in decision 1/CP.13, paragraph 1 (c), and to the Adaptation Fund Board, if requested, with a view to facilitating the operation of the Adaptation Fund.

78. With regard to the AWG-LCA, outputs from the Nairobi work programme such as the technical paper on physical and socio-economic trends in climate-related risks and extreme events have informed deliberations of the AWG-LCA on enhanced action on adaptation. Additional relevant information and advice on the scientific, technical and socio-economic aspects of impacts, vulnerability and adaptation that Parties may wish to consider providing to the AWG-LCA include knowledge and information generated under its specific activities and advice on modalities to engage a wide range of stakeholders. For example, the recommendations on how to enhance collaboration among regional centres and networks could assist in the consideration of how to strengthen existing and, where necessary, establish new regional centres and networks and to facilitate and enhance national and regional adaptation actions.

79. In addition, Parties and organizations have highlighted in their submissions that they support the Nairobi work programme in becoming the central knowledge and information sharing hub for the future adaptation framework.

80. In line with the “Strategic priorities, policies and guidelines of the Adaptation Fund”, eligible Parties are encouraged to consider information generated under the Nairobi work programme in developing projects and programmes to be funded under the Adaptation Fund.

81. Regarding the provision of relevant information to the Adaptation Fund Board, the former Chair of the SBSTA, following an invitation extended from the Board at its fourth meeting, addressed the Board at its fifth meeting on lessons learned from the Nairobi work programme. She invited the Board to explore how the programme could assist the Adaptation Fund in its operations, including by drawing upon the technical support of the Nairobi work programme, including its partners, in the Board’s efforts to prioritize adaptation projects and programmes.<sup>72</sup> In addition, one Party, in its submission, suggested that the Nairobi work programme could support the Adaptation Fund through technical capacity-building initiatives at the national level.

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<sup>68</sup> FCCC/SBSTA/2009/5, paragraph 38, FCCC/SBSTA/2010/2, paragraph 75, and FCCC/SBSTA/2010/9, paragraph 72 (a).

<sup>69</sup> FCCC/SBSTA/2009/5, paragraphs 41 and 42, and FCCC/SBSTA/2009/7, paragraph 50.

<sup>70</sup> FCCC/SBSTA/2009/7, paragraph 52, and FCCC/SBSTA/2010/2, paragraph 78.

<sup>71</sup> FCCC/SBSTA/2008/6, paragraph 23.

<sup>72</sup> <[http://www.adaptation-fund.org/meeting\\_reports](http://www.adaptation-fund.org/meeting_reports)>.