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Implementation of Article 4, paragraphs 8 and 9, of the Convention
Progress on the implementation of decision 1/CP.10

Report on the African regional workshop on adaptation

Note by the secretariat

Summary

This document provides a summary of the second regional workshop on adaptation as mandated by decision 1/CP.10, which was held for the Africa region in Accra, Ghana, from 21 to 23 September 2006. Discussions focused on systematic observation, impact and adaptation assessments, adaptation planning and implementation and regional and international cooperation. This document also includes possible follow-up actions relating to specific regional adaptation needs and concerns to address the main outcomes identified at the workshop, for consideration by the Subsidiary Body for Implementation.

CONTENTS

	<i>Paragraphs</i>	<i>Page</i>
I. INTRODUCTION	1-3	3
A. Mandate	1	3
B. Scope of the note	2	3
C. Possible action by the Subsidiary Body for Implementation .	3	3
II. WORKSHOP PROCEEDINGS	4-6	3
III. WORKSHOP SUMMARY	7-77	4
A. Introduction	7-11	4
B. Systematic observation	12-15	4
C. Impact and vulnerability assessments	16-23	5
D. Adaptation planning and implementation	24-67	6
E. Regional and international cooperation	68-77	11
IV. MAIN OUTCOMES	78-87	12
A. Systematic observation	79	12
B. Impact and vulnerability assessments	80	13
C. Adaptation planning and implementation	81-87	13
V. POSSIBLE FOLLOW-UP ACTIONS	88-90	14
A. Systematic observation	88	14
B. Impact and vulnerability assessments	89	14
C. Adaptation planning and implementation	90	14

I. Introduction

A. Mandate

1. The Conference of the Parties (COP), by its decision 1/CP.10, paragraph 8, requested the secretariat to organize three regional workshops, reflecting regional priorities, and one expert meeting for small island developing States, in order to facilitate information exchange and integrated assessments to assist in identifying specific adaptation needs and concerns. It further requested the secretariat to prepare reports on the outcome of these workshops in order for the Subsidiary Body for Implementation (SBI) to consider what further actions may be required by the COP at its thirteenth session.

B. Scope of the note

2. This note provides information on the second regional workshop organized by the secretariat under the guidance of the Chair of the SBI in response to the mandate referred to in paragraph 1 above. It includes an overview of the proceedings, and presents possible follow-up actions relating to specific regional adaptation needs and concerns to address the main outcomes identified at the workshop.

C. Possible action by the Subsidiary Body for Implementation

3. The SBI may wish to consider this report, together with the reports of the other regional workshops and the expert meeting on adaptation, at its twenty-sixth session (May 2007), with a view to making recommendations to the COP at its thirteenth session (December 2007).

II. Workshop proceedings

4. The UNFCCC secretariat, in collaboration with the Environmental Protection Agency of Ghana, organized the African regional workshop on adaptation in Accra, Ghana, from 21 to 23 September 2006.¹ Financial support was generously provided by the Governments of Norway, Portugal, Sweden and Switzerland. The workshop was chaired by Mr. William Kojo Agyemang-Bonsu of Ghana on behalf of Mr. Thomas Becker, Chair of the SBI. He was assisted by Mr. Kunihiko Shimada of Japan and Mr. Abdullatif Salem Benrageb of Libya.

5. Participants at the workshop included representatives from the countries of the region and from other interested Parties that provide support to adaptation-related activities in Africa, as well as representatives of relevant international, intergovernmental and non-governmental organizations that are active in the region. The workshop aimed to provide a forum to exchange experiences on adaptation in the African region, and to identify gaps, needs and concerns of countries in this regard.

6. The workshop was structured around the following six sessions:

- (a) Introduction and background: this session set the stage for the objectives of the workshop and included a presentation and discussion of a background paper produced by the secretariat for this event on impacts, vulnerability and adaptation to climate change in Africa;
- (b) Systematic observation: this session was devoted to issues of systematic observation, identifying needs and concerns relating to availability, accessibility and applicability of climate data, methods and tools;

¹ The agenda, background paper and expert presentations can be found on the UNFCCC website at: http://unfccc.int/adaptation/adverse_effects_and_response_measures_art_48/items/3743.php.

- (c) Impact and vulnerability assessments: this session covered different aspects of the assessment process, including the types of assessment methodologies;
- (d) Adaptation planning and implementation: this session addressed practical aspects of adaptation in various sectors, including agriculture and food security, water resources, health and coastal zones, and covered the experience of the United Nations Convention to Combat Desertification (UNCCD) and the Global Environment Facility (GEF) and its implementing agencies in supporting adaptation-related action in Africa;
- (e) Regional collaboration: this session included two round-table discussions, one on South–South collaboration and the other on North–South collaboration. It highlighted the different initiatives under implementation for both types of collaboration;
- (f) Outcomes and ways forward: this session was devoted to discussions to facilitate the identification of possible follow-up action to address specific adaptation needs and concerns in Africa. The discussions were held in three break-out groups which reported their outcomes to the workshop’s final plenary session.

III. Workshop summary

A. Introduction

7. A background paper and an associated presentation at the workshop confirmed that issues relating to vulnerability and adaptation in the Africa region are of great importance and urgency, in particular in the areas of agriculture and food security, water resources, health and coastal zones.

8. The continent is already under pressure from climate stresses which will be exacerbated by future climate change. Floods and droughts occur in the same area within months of each other. Droughts in Africa often lead to famine and widespread disruption of socio-economic well-being. Estimates reported at the workshop indicate that one third of the African people live in drought-prone areas and that 220 million are exposed to drought every year.

9. Dust and sand storms have negative impacts on agriculture, infrastructure and health in the Saharan and Sahelian environments; and the overexploitation of land resources and increases in population, desertification and land degradation pose additional threats. Other factors adding to the overall vulnerability include widespread poverty and illiteracy, insufficient institutional capacity, limited infrastructure and armed conflicts.

10. With further changes, the climate in Africa is predicted to become more variable, and extreme weather events are expected to be more frequent and severe. There are likely to be large regional differences in changes in rainfall; for example, models show increases for the western part of the continent and decreases for the northern part. In line with these predictions, the Sahel has experienced on average a 25 per cent decrease in rainfall during the past 30 years.

11. Furthermore, climate change in the region is anticipated to have far-reaching adverse effects on Africa’s efforts to foster sustainable development and attain the United Nations Millennium Development Goals (MDGs). Climate change may jeopardize in particular the achievement of goal 1 (eradicate extreme poverty and hunger), goal 6 (combat HIV/AIDS, malaria and other diseases) and goal 7 (ensure environmental sustainability).

B. Systematic observation

12. The representative of the secretariat of the Global Climate Observing System (GCOS) reported on GCOS capacity-building activities for Africa and stressed that adequate operational global, regional

and national climate observing networks are fundamental for supporting the development of sound adaptation policies. Properly functioning climate observing systems are as important to adaptation as they are for better understanding the climate system. Improving the range and quality of observations can contribute to responding to a range of needs, including needs for climate information for flood management, food security, malaria outbreaks and farm-level decision making.

13. The representative highlighted the “Climate Information for Development Needs: An Action Plan for Africa” strategy which was developed as a follow-up to the GCOS regional workshop programme and which will be formally launched in 2007. It aims to improve the inadequate and deteriorating observing systems through an integrated programme that includes not only observations, but also climate services and climate risk management and policy. The importance of greater collaboration between the providers of climate information, such as meteorological services, and the sectoral users of such information for adaptation to climate change was also stressed in this regard.

14. During the country presentations, the presenter from Lesotho stressed that, besides the inadequacy of the networks, there is a lack of data dissemination among countries, related centres and international data centres. The representative of Uganda pointed out during his presentation that data from Africa are often characterized by both temporal and spatial gaps. Where data exist, data processing facilities (software and hardware) are neither modern nor robust enough to handle the data volume.

15. During the discussion, many participants stated that a major constraint is that of maintaining observation networks, and organizing and sharing the resulting data once external funding is terminated. Participants emphasized the need to raise awareness among governments about the importance of networks in order to receive public funding, and about extending user access, not only to meteorological but also to non-climatic socio-economic data that are relevant to the assessment of a country’s vulnerability.

C. Impact and vulnerability assessments

16. Country presentations and ensuing discussions on impact and vulnerability assessments in Africa illustrated the range of possible assessments, including top-down assessments through scenarios and models and bottom-up assessments through livelihood analyses. While some countries reported that they undertook impact and vulnerability assessments exclusively during the initial national communications, others reported that specific follow-up studies were undertaken by universities and independent researchers, which reflects an increasing awareness of climate change.

17. Several participants highlighted the difficulties in using high-resolution general circulation models (GCMs) and downscaling techniques due to their prohibitive costs in terms of financial and human resources; GCMs have to be coded, calibrated and validated. While GCMs and scenarios provide important insights into possible future climate change and enable a long-term climate risk assessment at a general level, many participants agreed that current model outputs cannot be used exclusively in designing concrete adaptation measures.

18. Despite progress in some areas, participants noted a discontinuity of assessment efforts and loss of institutional memory between the initial and the second national communications. The representative of Morocco stated that the institutional memory can be relied on only if the process is managed on a continuous basis, which could be done through establishing a national expert panel consisting of representatives from different entities (public organizations, universities, etc.). Participants also discussed the lack of follow-up on the assessment results, in terms of implementation of identified adaptation projects and monitoring of projected changes.

19. The scope of the assessments varied; while Kenya considered all major economic sectors, Swaziland, in undertaking its vulnerability assessment for its second national communication, is

incorporating a livelihood approach – a rapid assessment process which takes around three weeks to one month of fieldwork in vulnerable communities and another month analysing and extrapolating the results. Within two months, policymakers have an overall picture of the vulnerability of livelihoods.

20. Regarding the integration of the different sectoral vulnerability assessments, the representative of Morocco emphasized that some sectors such as agriculture and water resources are integrated by default, given their close relationships. The representative of Kenya also emphasized the need for integrated assessments and advocated the benefits of policies such as soil conservation and renewable energies that address both adaptation and mitigation.

21. Participants from a number of countries reported the successful use of the national adaptation programme of action (NAPA) methodology in conducting impact and vulnerability assessments; they said that it provides a robust country-tailored process, especially as it does not require additional data and information which is difficult to obtain in the least developed countries (LDCs). For example, the representative of Guinea underlined the advantage of the NAPA methodology in ensuring policy relevance and mainstreaming of adaptation into national planning, since the methodology entails integration of existing priorities, including those articulated in communications to other conventions as well as in national poverty reduction strategy papers and other sustainable development strategies.

22. Given the lack of capacity and resources, participants suggested making use of synergy between the different assessment processes, including those under the UNFCCC and the UNCCD. In this regard, the representative of Guinea reported that the country's NAPA process did not require new vulnerability studies, but incorporated many of the findings from its national action plan (NAP) under the UNCCD.

23. Participants also noted a lack of socio-economic assessment, which is an important complement to existing assessments, particularly given that poverty has been recognized as a major factor in vulnerability. Where possible, a quantification of potential losses arising from the adverse effects of climate change was deemed useful, including for policy-level decision makers.

D. Adaptation planning and implementation

24. Despite the lack of data and the existence of gaps in the impact and vulnerability assessment process, participants agreed that there is sufficient information for adaptation action based on current climate variability and extremes, and that gaps and concerns should not be used as justification for inaction on adaptation.

25. Participants from many countries underlined the effectiveness of the NAPA process in facilitating adaptation planning and implementation, especially as the participatory bottom-up process allows for buy-in from stakeholders. At the same time, the representative of Gambia pointed out that NAPAs provide an effective platform for integrating climate change into national policy. Hence a number of participants called for enhancing the application of NAPAs in non-LDCs. Regarding financial support for such an endeavour, the GEF representative noted that funding is already available through support for second national communications, under which full cost funding is provided up to USD 400,000, which can be increased in specific cases if deemed necessary. Countries may elect to apply the NAPA methodology in the context of the preparation of their national communications.

26. Participants highlighted the importance of traditional adaptation knowledge and noted that more integration of such knowledge should take place in the planning and implementation process, particularly through partnerships with grass-roots organizations. The identified advantages that traditional practices and technologies have over foreign techniques include cost-effectiveness, adaptability to local conditions and easy dissemination. In this regard, participants underlined the need for effective mechanisms to exchange information among different users of traditional knowledge. Available resources to support

sharing of experiences include the UNFCCC database on local coping strategies.² The GEF-funded United Nations Development Programme (UNDP) projects entitled “Community-Based Adaptation Programme” and “Adaptation Learning Mechanism” also contribute to collecting and sharing existing information on local adaptation projects.

27. Many participants emphasized the need for a holistic approach in planning for adaptation, in order not only to plan and implement specific measures but also to consider the wider context, for example by including scenarios other than the ones for which the measures were designed.

28. In this respect, the representative of Gambia cautioned against “incomplete” adaptation, which could lead to a total loss of adaptation investments. Although the country spent USD 10 million on coastal sand stabilization, it did not construct groynes to reduce wave intensity; within a short time all the sand that was brought in was lost. Similarly, Burundi introduced drought-resistant crop varieties to help ensure food security in times of drought; however, during periods of abundant rainfall, there was an overproduction of crops and no means to store the product for future use. Thus, when planning for adaptation, countries may need to mobilize additional resources to ensure that adaptation measures are fully successful.

29. In another example, the representative of Ethiopia indicated that, while harvesting water led to increased water supplies and higher yields in crops, it also led to an increase in the incidence of malaria. In such cases, countries should complement adaptation measures for the water and agriculture sectors with measures for the health sector to ensure the greatest benefits for communities affected by climate change.

30. Many participants highlighted the need to incorporate adaptation into disaster risk reduction. For example, the representative of Kenya stated that after a recent drought and an associated famine, emergency relief funds were used to provide water, including through boreholes and dams. Such measures served as examples to promote planning for sustainable land and water resource management.

31. However, some participants pointed out that while emergency relief following droughts or floods can save lives in the short term, it needs to be complemented by long-term measures to develop adaptive capacity, in order to avoid promoting dependency on external relief and undermining traditional coping mechanisms. In Swaziland, for example, food aid helped the starving population in the short term but in the long-term it was noted that relief activities needed to be complemented with measures such as providing financial resources, for example through microcredit to support communities in developing assets and sustainable livelihoods.

32. Another important aspect necessary for successful implementation of adaptation measures is obtaining buy-in from stakeholders, especially in instances where adaptation measures face potential difficulties in gaining social acceptance, as for example in using recycled water to respond to shortages. The representative of Swaziland said that his country needs to work closely with stakeholders to move the consumption culture away from the water-intensive maize towards drought-resistant crops such as sorghum, millet and cassava.

33. The representative of Benin pointed out that adaptation planners need to be aware of cultural and religious beliefs and practices; for example, some people associate droughts with divine punishment. If such beliefs are not recognized and communities are not engaged in the assessment process, measures to reduce vulnerability could fall short.

34. Besides awareness-raising at local levels, participants underlined the importance of involving high-level policymakers to ensure integration of adaptation into national development policies.

² <<http://maindb.unfccc.int/public/adaptation>>.

Botswana, for example, invited experts from the Intergovernmental Panel on Climate Change to speak to the national parliament to educate legislators on climate change.

1. Agriculture and food security

35. The background paper highlighted the fact that in Africa, 70 per cent of the population mainly relies on subsistence agriculture for their livelihood, with rainfall as the only source of water. A decline in most subsistence crops has been predicted as a result of climate change impacts, such as changes in precipitation patterns and amounts, seasonal shifts, and changes in the growing seasons. As a result, people will face more food shortages and need to enhance existing adaptation measures and develop new ones.

36. Presentations highlighted a number of adaptation strategies that are already being applied which not only address climate variability but also land degradation, including agronomic management, crop intensification, water management, alternative enterprises and post harvest practices.

37. Regarding concrete adaptation practices, Benin, for example, is using seedling transplantation to adapt to floods. Before the rainy season, fields are prepared, and in cases of predicted flooding, seedlings are transplanted to nurseries.

38. The representative of Burkina Faso highlighted the *Zai* technique, one of the country's traditional practices to cope with arid conditions, which entails harvesting water and conserving soil nutrients. Termite activity is used to incorporate sand, loam and other organic material from the surface into the soil, while creating tunnels within which pockets of water can be retained without being subject to evaporation.

39. The increasing application of intercropping and diversification by farmers in Tanzania was reported; increased drought conditions have forced farmers to avoid the risk of planting a single crop as before. In the most vulnerable areas many farmers plant a number of crop varieties and species on the same piece of land.

40. Besides diversification at the local level, participants discussed the importance of diversification at the national level, especially in agricultural communities which depend on a single cash crop that is highly vulnerable to adverse effects of climate change, such as cocoa cultivation in Ghana.

41. With regard to research and support, the representative from the Food and Agriculture Organization of the United Nations (FAO) informed participants that FAO has produced CD ROMs on tools and models relevant to adaptation in the agriculture sector, and has also made this information available on the Internet. In addition, FAO conducts training workshops to build related capacity. Other support tools highlighted by participants include famine and livestock early warning systems.

2. Water resources

42. As described in the background paper, millions of people in Africa already have no access to potable water, and water scarcity is expected to rise owing to increased demand as a result of the expected population growth in drought-prone areas and possible future decreases in precipitation. By 2025, it is projected that around 480 million people in Africa would face either water scarcity or stress, with a subsequent potential increase of water conflicts.

43. When planning for adaptation in the water sector, participants underlined the need to take an integrated approach which not only includes domestic consumption and agriculture but also takes into account demand for water from other sectors such as energy, industry and mining.

44. Participants also agreed that focusing on water availability is not enough; issues of water quality need to be considered as well. In Madagascar, for example, water quality has been significantly reduced through salination.

45. Many participants highlighted rainwater harvesting and increasing water retention as an adaptation strategy. In Rwanda reforestation is carried out to retain water and reduce run-off. While environmental laws exist to prevent people from cultivating river valleys (slopes), enforcement remains weak. In Malawi adaptation in the water sector requires measures that mitigate the effects of floods and droughts. These include improved water supply to rural communities in particular, through reservoir storage, gravity-fed water supply schemes and innovative borehole construction to ensure water availability in times of drought.

46. Other adaptation measures discussed included the transfer of water. The representative of Côte d'Ivoire reported on experiments to transfer water from Abidjan to Bonoit through channels and hydraulic pumps. Although successful, these measures depend on expensive technology which should be complemented by the rationalization of water use, including raising efficiency of irrigation.

47. Given that almost all of the 50 river basins in Africa are transboundary, participants emphasized the need to adopt a regional approach to adaptation planning and implementation to resolve issues of water sharing. Important initiatives in this regard are the Nile Basin Initiative and the Niger Basin Authority.

3. Health

48. Africa is vulnerable to several climate-sensitive diseases such as Rift Valley fever, cholera and malaria. It is expected that the range, timing and severity of outbreaks of these diseases will change with a changing climate. Malaria is of particular importance as it already affects at least 300 million people each year and is said to slow economic growth in African countries by 1.3 per cent a year. Under climate change conditions, malaria is expected to spread to areas where transmission is currently limited due to lower temperature, such as in the highlands of East Africa.

49. The representatives of Niger and Gambia reported on adaptation measures identified during the preparation of their countries' NAPAs, including distributing impregnated mosquito nets, increased vaccinations, awareness-raising of the population for preventive measures and more training of health personnel.

50. Given the linear relationship between malaria incidence and rainfall, participants emphasized the need to improve seasonal forecasts of precipitation, in order to be better prepared for climate-related diseases. The representative of Gambia reported on the usefulness of the West African Climate Outlook Forum (PRESAO). At the onset of each rainy season, PRESAO issues a forecast of rainfall conditions for the whole sub-region so that policymakers may take appropriate measures.

51. With regard to awareness-raising and education, the representative of Ghana presented a poster which is used in schools to illustrate the relationship between climate and diseases.

4. Coastal zones

52. More than 25 per cent of Africa's population live within 100 km of the coast, and projections suggest that the number of people at risk from coastal flooding will increase from one million in 1990 to 70 million in 2080. Sea levels are projected to rise in Africa by 15–95 cm by the year 2100, consequently endangering 30 per cent of Africa's coastal infrastructure through inundation and coastal erosion.

53. During the presentations, a number of adaptation measures that are either in the process of planning or are under implementation were highlighted. They range from institutional and regulatory measures (for example, Sierra Leone is setting up a coastal management board) to structural measures (for example, Djibouti is building dykes to avert flooding).

54. Other coastal zone adaptation measures include digging new wells and boreholes in response to salt water intrusion, delineation of flood and erosion hazard areas, establishment of sea-level observing systems, prevention of sand and gravel mining for building purposes, and afforestation of sand dunes.

55. Participants pointed out that even though coastal zones may be severely affected, financial support and capacity to deal with these impacts are quite limited. For example, Sierra Leone estimated that the full protection of all its vulnerable shores will require an estimated amount of USD 1,144 million, which is about 17 per cent of its GDP. Concentrating action on the most important areas would still cost USD 6 million.

56. Participants emphasized that while planning and implementing adaptation measures are important, other socio-economic factors such as overexploitation of coastal resources, population growth and pollution need to be taken into account to ensure overall effectiveness.

5. Synergies – the experience of the United Nations Convention to Combat Desertification

57. The representative of UNCCD elaborated on the various implementation activities undertaken under the UNCCD that offer opportunities for synergies between adaptation and combating desertification. Activities include the NAPs as well as subregional action plans (SRAPs) and regional action plans.

58. So far, four SRAPs have been elaborated. Identified priority projects focus on sustainable management of natural resources and capacity-building. At the regional level, six thematic programme networks (TPNs) have been launched to support the implementation of action plans. TPNs of relevance to adaptation include water, agroforestry, rangelands, early warning systems, and sustainable farming systems.

59. During the discussion, participants noted the shortage of funding for UNCCD-related activities, despite its links with climate change and its focus on the African continent. Some participants argued that given the similarities in solutions, joint action and project implementation under the three Rio Conventions may attract more funding.

60. In this regard, participants discussed the merits of the Strategic Priority on Adaptation (SPA) under the GEF Trust Fund, which supports projects that promote synergies, for example the “Coping with drought and climate change” project in Ethiopia, Kenya, Mozambique and Zimbabwe. In addition, under the focal area for land degradation, synergistic projects also receive funding; for example, Namibia’s Country Pilot Partnership for Integrated Sustainable Land Management features an adaptation component.

61. Besides synergies in project implementation, participants advocated shared data collection and information networking, whereby a common system for information collection and dissemination could be used by the three conventions at the national level to use scarce resources efficiently. In addition, the National Capacity Self-Assessments process (NCSA) provides an opportunity to identify and harness more synergies.

6. Support for adaptation in the context of sustainable development

62. In a session focusing on support from the GEF and implementing agencies, information was presented on various adaptation-related projects under the GEF Trust Fund through the SPA, the Special

Climate Change Fund (SCCF) and the Least Developed Countries Fund (LDCF). Adaptation support is also provided outside the GEF context, for example through technical support from the World Conservation Union (IUCN).

63. The GEF representative updated the meeting on current levels of funding available for adaptation under the SPA, the LDCF and the SCCF, which as at September 2006 stood at around USD 200 million (including pledges).

64. GEF adaptation projects in Africa range from national (e.g. Mainstreaming Climate Change in Integrated Water Resources Management in Pangani River Basin, Tanzania) to regional (e.g. Adaptation to Climate Change – Responding to Coastline Change and Its Human Dimensions in West Africa) to global (e.g. the Community-Based Adaptation Programme). The GEF representative noted that the relative share of African projects under implementation and in the pipeline could be enhanced, especially under the SCCF, in order to reflect the continent's size and vulnerability to climate change. In this regard, participants stressed that procedures for accessing existing financial resources for adaptation remain complex and lengthy and that support and capacity-building for proposing and preparing projects is needed.

65. With the conclusion of the preparation phase of NAPAs, countries are expected to submit project proposals under the LDCF for NAPA implementation. Malawi, for example, is expected to submit its first project through the African Development Bank as the executing agency.

66. The UNDP representative underlined the role of UNDP as an implementing agency of the GEF in supporting countries in achieving their adaptation goals. The cornerstone in its strategy on adaptation is the Adaptation Policy Framework, which assists countries in the process of incorporating adaptation concerns into national strategies and guides formulation and implementation of projects.

67. The IUCN representative elaborated on various activities undertaken by IUCN to support adaptation in Africa, through projects focusing on biodiversity, protected areas and natural resources as well as people and their livelihoods, for example in the "Community-based Risk Screening Tool – Adaptation and Livelihoods" project.

E. Regional and international cooperation

68. During the discussions on South–South cooperation, the importance of catalysing cooperation between institutions in Africa was underlined, in particular the need to share experiences and lessons learned by communities facing similar problems.

69. In this regard, the Sahara and Sahel Observatory (OSS), which is undertaking surveillance, monitoring and evaluation, and promoting systems of early warning with a view to providing information that will assist in preventing land degradation, is cooperating with vulnerable countries on information sharing and developing indicators at the local level. The OSS called for improved coordination of African institutions and different regional initiatives.

70. With respect to the integration of adaptation and disaster risk reduction (DRR), the secretariat of the International Strategy for Disaster Reduction reported on the establishment of national platforms on DRR, where participation of adaptation practitioners is highly encouraged. Meetings for these national platforms will be held annually at regional level to exchange information, experiences and lessons learned.

71. The Center for International Forestry Research representative explained the link between adaptation and proper management of forests. He presented the Climate Change Adaptation initiative, which aims to support forest communities and other ecosystems as well as providing a platform for

regional dialogue. He stressed that forestry offers a key entry point for South–South cooperation, given the transboundary nature of forest resources in Africa, such as the Congo basin.

72. A representative of the United Nations Environment Programme (UNEP) Regional Office for Africa informed the workshop about activities under the New Partnership for Africa’s Development (NEPAD) environmental initiative that was adopted by the African Ministerial Conference on the Environment. Despite increasing regional efforts, UNEP noted the lack of South–South cooperation between northern and southern Africa and encouraged participants to liaise with their national counterparts to put adaptation on the NEPAD agenda in order to enhance resources and stimulate further cooperation.

73. Some participants proposed that the starting point for effective South–South collaboration could be the development of regional adaptation projects, which could help in identifying common problems and solutions. It was also noted that fostering cooperation among researchers and institutions would lay a good foundation for continuous South–South collaboration. Inadequate capacity and resources, rather than a lack of political will were seen as the main hindrances to cooperation between African institutions. This includes such fundamental problems as poor communication and transport infrastructure.

74. During the discussions on North–South cooperation, representatives from Parties included in Annex II to the Convention (Annex II Parties) presented some of their initiatives. For example, the workshop was informed about Japan’s intention to double official development assistance (ODA) for Africa by 2008, in line with the Group of Eight commitment, and invited participants to provide project proposals in this context. The representative of the United States of America referred to pilot studies for integrating adaptation into development planning and to related projects being undertaken in Mali and South Africa. The representative of Canada reported that, through its Climate Change Development Fund, the country has contributed USD 30 million to support global adaptation efforts, including projects for adaptive capacity and food security in the Sahel, sub-Saharan Africa and Nigeria.

75. Many Annex II Party participants underlined the necessity to mainstream adaptation into development assistance in order to “climate-proof” investments. The European Commission, for example, has developed an overall planning framework so that adaptation considerations are taken into consideration in development partnerships.

76. Referring to lessons learned in Latin America through the Iberoamerican Climate Change Network, the representative of Portugal emphasized the importance of exchanging information between North and South, in particular among countries that speak the same language.

77. During the discussion, some participants cautioned against viewing funding for adaptation as an ODA issue. Rather than considering it as a donor–recipient relationship, funding for adaptation should be seen in the context of partnerships, in which Annex II Parties support Parties not included in Annex I to the Convention in addressing the effects of a global problem caused mainly by the North.

IV. Main outcomes

78. A number of outcomes emerged from the discussions at the workshop, including from the break-out groups, relating to the needs and gaps on systematic observation, impact and vulnerability assessments, and on adaptation planning and implementation.

A. Systematic observation

79. Participants agreed that systematic observation networks in Africa are inadequate because there is a lack of stations and lack of maintenance. Participants reiterated that missing and scattered observational climate data in Africa is a constraint to understanding current and future climate

variability. If data exist, there are difficulties in obtaining it. Participants underlined the importance of implementing the GCOS Action Plan for Africa to improve the situation.

B. Impact and vulnerability assessments

80. Participants emphasized that there is no continuity in impact and vulnerability assessment capacity. They noted that in many countries the impact and vulnerability assessment undertaken in the initial national communication process was disjointed from that of the second national communication. Africa has a low level of capacity and expertise in climate science, particularly in prediction for longer timescales, as most predictions are supplied from international centres external to Africa. Another gap in the assessment process is the lack of country-specific socio-economic scenarios as well as comprehensive studies on the costs of adverse impacts and the costs and benefits of adaptation options.

C. Adaptation planning and implementation

81. Participants agreed that in many countries there is sufficient information and knowledge to begin to plan and implement adaptation activities. However, they acknowledged that the African region faces difficulties due to a lack of resources and institutional capacities to facilitate the integration of climate change concerns in national policies. Other factors which exacerbate the overall level of vulnerability and which need to be taken into account in adaptation planning and implementation include political instability, widespread illiteracy and poverty of the rural population.

82. At the same time participants highlighted some of the strengths of Africa, including its well-developed social networks, its traditional knowledge in dealing with the local environment and its natural resources.

83. Participants agreed that approaches that address multiple environmental stresses and factors hold the greatest promise for Africa, particularly given the limitations in capacity (both in terms of human capacity and financial resources). Efforts aiming at poverty reduction, combating land degradation and reducing loss of biological diversity and ecosystem services as well as enhancing adaptive capacity are more likely to succeed than uncoordinated efforts.

84. Participants emphasized the need for economic diversification as an important adaptation strategy for African countries that rely on narrow ranges of climate-sensitive economic activities.

85. With regard to capacity-building, procedures for accessing existing financial resources for adaptation remain complex and lengthy; thus there is a need for information to improve access to funding and to facilitate project preparation.

86. In addition, most of the material available to experts on adaptation planning and implementation continues to be mainly in English. The availability of technical documentation in French and possibly African languages needs to be enhanced for experts in the region to fully participate in the adaptation process.

87. Given that many countries may experience similar effects from climate change, sharing experience can broaden knowledge on how to address the adaptation challenges. In this regard, South–South and North–South cooperation on adaptation is an effective instrument for promoting the implementation of adaptation measures. Additional regional workshops focusing on specific areas of priority to the continent would also be helpful in enhancing such exchange of experience.

V. Possible follow-up actions

A. Systematic observation

88. Participants called for the following follow-up actions with regard to systematic observation:
- (a) Improving and sustaining operational observing networks, such as the GCOS Surface Network (GSN) and Upper Air Network (GUAN);
 - (b) Rescuing historical meteorological data and supporting the GCOS Action Plan for Africa;
 - (c) Generating awareness among different user communities of the usefulness of climate information and services;
 - (d) Improving collaboration between the providers of climate information and the sectoral users of this information.

B. Impact and vulnerability assessments

89. Participants identified the following follow-up actions with regard to impact and vulnerability assessments:
- (a) Developing regional climate models to provide fine-scale climate information for long-term impact studies and forecasting;
 - (b) Linking climate change with socio-economic data;
 - (c) Promoting integrated assessments, bottom-up assessments, and the use of the livelihood approach in the assessment process;
 - (d) Continuing and enhancing capacity-building efforts following the outcomes of the Assessments of Impacts and Adaptations to Climate Change project and the climate modelling workshops conducted by the World Meteorological Organization and the Global Change SysTem for Analysis, Research and Training (START);
 - (e) Facilitating the exchange of information and experiences between African institutions;
 - (f) Promoting opportunities for further South–South cooperation and coordination in the impact and vulnerability assessment process, for example through enhancing the role of specialized centres such as the African Centre of Meteorological Application for Development in the areas of training modelling.

C. Adaptation planning and implementation

90. Participants identified the following follow-up actions relating to adaptation planning and implementation:
- (a) Implementing identified adaptation projects, including those proposed through the NAPA process;
 - (b) Adopting the NAPA methodologies by non-LDCs given the good experiences with NAPA preparation;
 - (c) Integrating climate change into educational curricula to increase awareness;

- (d) Creating awareness on adaptation among planners and political decision makers;
- (e) Enhancing and facilitating the sharing of experiences between users of traditional coping strategies, through a variety of mechanisms, for example through expanding the UNFCCC database on local coping strategies;
- (f) Building capacity for the development of project proposals and better access to adaptation funding;
- (g) Increasing adaptation funding in both the national budgets as well as in multilateral funds, possibly through the establishment of an Adaptation Fund for Africa;
- (h) Cooperating on adaptation, and mainstreaming it through:
 - (i) Establishing African partnerships to enhance South–South cooperation by:
 - Building the capacity of climate change focal points, including through training and provision of equipment;
 - Developing inventories of successful experiences and expertise available;
 - Reinforcing links with the disaster risk reduction community, especially with regard to disaster preparedness rather than relief;
 - Integrating adaptation in sectoral policies and environmental impact assessments;
 - Creating climate change committees feeding into regional committees;
 - Collaborating and networking among African institutions active on climate change;
 - Holding annual forums, including one for francophone Africa, to exchange information on vulnerability assessments, adaptation planning and implementation at regional level;
 - Developing transboundary projects;
 - (ii) Creating partnerships to transfer experiences and to incorporate adaptation into projects and loans as part of North–South cooperation;
 - (iii) Enhancing synergies between the Rio Conventions for purposes of sharing information and knowledge on assessment processes such as the NCSA programme.
