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NATIONAL COMMUNICATIONS FROM PARTIES NOT INCLUDED IN ANNEX I TO THE CONVENTION

Report of the regional workshop of the Consultative Group of Experts on national communications from non-Annex I Parties of the African region

CONTENTS

I. INTRODUCTION

A. Mandate

1. Pursuant to decision 8/CP.5, a Consultative Group of Experts on National Communications from Parties Not Included in Annex I to the Convention (CGE) was established with the objective of improving the national communications from those Parties. This decision mandated the CGE to hold three regional workshops during the year 2000, one each in Africa, Asia, and Latin America and the Caribbean. The UNFCCC secretariat was requested to coordinate these workshops. The first regional workshop was held in Mexico City, Mexico, from 8 to 12 May 2000 for the Latin America and the Caribbean (LAC) region. The African regional workshop, the second in the series, was held in Nairobi, Kenya, from 15-18 August 2000.

B. Scope of the report

2. This report briefly describes the objectives, activities and outcome of the African regional workshop. Section II of the report describes the objectives and activities of the workshop and section III summarizes the main issues and problems encountered by African countries in the preparation of their initial national communications. Section IV outlines recommendations and follow-up action put forward to address the specific problems and concerns of non-Annex I Parties as they relate to the preparation of their national communications. Project concept notes, the agenda of the workshop and the list of participants are attached as annexes I, II and III, respectively.

II. WORKSHOP OBJECTIVES AND ACTIVITIES

3. The workshop objectives, as defined by the terms of reference of the CGE annexed to decision 8/CP.5, were to:

(a) Consider, as appropriate, information in national communications from non-Annex I Parties in accordance with the guidelines for the preparation of initial national communications by Parties not included in Annex I to the Convention contained in the annex to decision 10/CP.2;

(b) Review existing activities and programmes to facilitate and support the preparation of national communications by non-Annex I Parties with a view to identifying gaps and making recommendations to better coordinate these activities and programmes in order to enhance the preparation of national communications;

(c) Identify the difficulties encountered by non-Annex I Parties in the use of the guidelines contained in the annex to decision 10/CP.2 and in the use of the Intergovernmental Panel on Climate Change (IPCC) methodologies and other models, and make recommendations for improvement where appropriate;

(d) Identify the analytical and methodological issues, including technical problems in the preparation and reporting of greenhouse gas inventories, in particular with respect to the improvement of data collection, the development of local and regional emission factors and

activity data, and the development of methodologies, where appropriate, with a view to enhancing the quality of future inventories;

(e) Examine national communications, in particular greenhouse gas inventories, submitted by non-Annex I Parties, with a view to arriving at recommendations on ways of overcoming difficulties in the use of the IPCC methodologies and the UNFCCC guidelines relating to inventories contained in the annex to decision 10/CP.2, and on possible innovations, and produce reports thereon;

(f) Exchange experience and information on the preparation of national communications, including consideration of subregional experience;

(g) Consider, as appropriate, the needs for and availability of financial resources and technical support, and the identification of barriers to and gaps in this support;

(h) Encourage interaction among experts from all Parties.

4. A total of 37 participants from 23 countries attended the workshop. They included 26 experts from 21 countries in Africa and experts from two Annex I Parties, Germany and Switzerland, the UNDP/UNEP/GEF National Communications Support Programme and the IPCC Task Force on National Greenhouse Gas Inventories. The workshop was conducted by the five members of the CGE from the African region, and was chaired by Prof. A. Ajavon (Togo). Dr. J.L. Agatsiva (Kenya) served as rapporteur of the workshop.

5. The agenda of the workshop, which had previously been circulated among the participants, was adopted unanimously.

6. The workshop was conducted through four working groups dealing with issues and problems related to the preparation of greenhouse gas (GHG) inventories; vulnerability and adaptation assessments; identification of abatement options, and financial and technical needs related to the preparation of national communications. The working group reports were then referred to the plenary for its review and adoption at the completion of the workshop.

7. Technical and expert presentations on experience in the preparation of initial national communication by countries of the region were made during the plenary session of the first day. A listing of the supporting material available to the workshop participants is included in II below.

8. The workshop had, for its consideration, the national communications submitted to date by five countries of the region,[1] as well as a compilation of information contained in these national communications prepared by the UNFCCC secretariat.

III. MAIN ISSUES AND PROBLEMS

9. The present section summarizes the main issues and/or problems discussed in the four working groups.

[1] Egypt, Lesotho, Mauritius, Senegal and Zimbabwe. These countries are referred as reporting countries in this document.

A. Greenhouse gas inventories

10. In order to improve the quality and comprehensiveness of national communications it is essential that the communication process should ensure continuity and sustainability of inventory preparation. Emphasis should therefore be placed on building national capacity as well as securing adequate resources for collecting adequate activity data, developing emission factors as appropriate, employing good practices in data management, reducing uncertainties and minimizing biases and strengthening institutional arrangements for the compilation of inventories.

Analytical and methodological issues (methods, activity data and emission factors)

11. All reporting countries[2] as well as other African countries which are in the process of preparing their national communication, as described by experts attending the workshop, used the IPCC methodology for preparing inventories. In the energy sector, some Parties used the reference approach because they had difficulties in using the sectoral approach due to the lack of energy balances. Activity data and emission factors in the energy sector are well documented for the fossil fuels, but data are lacking for firewood and charcoal consumption and combustion. The collection of such activity data is difficult due to the widespread use of these fuels in the informal sector. Problems also exist for collecting activity data on kerosene used in households. It was stated that there is a need for improvement of the national energy balances so that they are consistent with the IPCC disaggregation. In addition, some African countries do not even have energy balances. The use of international energy balances is difficult, as there are considerable differences between national energy balances and international energy data.

12. In the land-use change and forestry (LUCF) sector, activity data are lacking or not accessible in many countries. Most countries pointed out the relatively large degree of uncertainty associated with activity data related to this sector. Large differences between international activity data and national activity data for forests were reported. The use of international data is also difficult because of inconsistencies between international databases, e.g. between FAO forest data and, for instance, data from the World Resources Institute.

13. The section on LUCF in the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories[3] is often not appropriate for African countries, e.g. the local classification of forests is different and does not fit with the proposed classification system. In some instances, the IPCC Guidelines are not clear enough for consistent reporting across Parties, e.g. for estimating emissions or sequestration in managed natural forests. Emission factors for charcoal production are lacking in the LUCF sector, and for the accounting of carbon dioxide (CO_2) emissions or sequestration country-specific conversion factors for forests are not available. In addition, there are problems in distinguishing fractions of biomass burnt on-site, burnt off-site or left to decay.

14. In the agricultural sector, activity data are also lacking or not accessible in many countries. The sections on enteric fermentation and manure management in the IPCC Guidelines are often not appropriate for most African countries, e.g. the classification of animals, the

[2] See working paper No. 12: "National GHG inventories of non-Annex I Parties of Africa: Preliminary synthesis. Methodological issues''. This document may be found on the UNFCCC secretariat web site or sent upon request.
[3] Referred to as the IPCC Guidelines in this document.

animals included, the values for animal weights and data on animal production. In addition, the classification of agricultural soils provided in the IPCC Guidelines is not entirely consistent with that pertaining in most African countries. For savannah burning, the ratios burnt on-site and off-site require clarification.

15. In the waste sector, national circumstances in African countries differ considerably from those for which guidance is provided by the IPCC. The common solid waste practices involve burning and/or the use of open dumps; thus methane (CH_4) emissions from waste are not relevant in many African countries due to lack of the anaerobic conditions typical of landfills considered in the IPCC Guidelines. The use of IPCC default emission factors for CH_4 emissions from domestic waste water would overestimate considerably the CH_4 emissions in most African countries, as anaerobic conditions in waste management are less common.

16. Most inventory experts of the region are still not aware of the IPCC report, *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*[4] although it could provide useful guidance to non-Annex I Parties in applying the IPCC Guidelines.

17. Information on emission factors resulting from research carried out in some non-Annex I Parties was often not included in the IPCC Guidelines because it is not published in English or in well-known journals. It may, therefore, not be available for use in other countries even within the same region.

Use and possible improvement of the UNFCCC guidelines

18. The analysis of the use of the UNFCCC guidelines took into consideration information contained in the national communications of five Parties of the region as well as the opinion of experts attending the workshop. It could be considered only as preliminary. This analysis may change if the reporting of the other Parties follows a different pattern. An official process of revising the UNFCCC guidelines was established by decision 8/CP.5.

19. The existence of the UNFCCC and IPCC Guidelines facilitated the preparation of the national inventories by Parties. Parties provided the best information available, information that was more complete than the inventory information explicitly requested by the UNFCCC guidelines (annex to decision 10/CP.2).

20. Four of the five reporting Parties used the Revised 1996 IPCC Guidelines. Other Parties that are currently preparing their national communication are also using them. Although UNFCCC guidelines explicitly state that Parties should apply the IPCC Guidelines, no specific mention of the Revised 1996 IPCC Guidelines was made due to the fact that this last version of the IPCC Guidelines became available to Parties only after the adoption of decision 10/CP.2. The SBSTA at its fourth session encouraged non-Annex I Parties to apply this last version.

21. All Parties provided inventory data using the IPCC reporting format (summary table 7A or modifications of such a table) and presented most of the information contained in the summary table. This information is more detailed than the information explicitly requested by

[4] Referred to in this documents as the IPCC good practice guidance. Participants were provided with the May 2000 version of the report on diskette. The final version is made available on the IPCC web page (http://www.ipcc-nggip.iges.or.jp/).

table II of the UNFCCC guidelines. For example, this table II does not explicitly require the reporting of GHG emissions that are important for these countries, such as nitrous oxide (N_2O) from agricultural soils, or CH_4 from waste. Working paper No. 12 provides more information on this issue.

22. Three of the five reporting Parties provided the worksheets of the IPCC reporting format, and one Party provided the IPCC standard table. These formats provide for more transparent reporting of the inventory data than the UNFCCC guidelines format, and facilitate the sharing of inventory information among experts and countries.

23. Although the UNFCCC guidelines encourage Parties to include, *inter alia*, perfluorocarbon (PFC) and sulphur hexafluoride (SF_6) emissions, they contain no explicit request to include hydrofluorocarbon (HFC) emissions. At its fourth session, the SBSTA subsequently encouraged the reporting of actual emissions of these three gases. HFC emissions were not relevant for most non-Annex I Parties at the time when decision 10/CP.2 was adopted. None of the five reporting African Parties provided information on HFC, PFC or SF_6 emissions.

B. Vulnerability assessment and adaptation options

24. Africa is considered to be one of the regions most vulnerable to the impacts of climate change due to its low adaptive capacity as reflected in increasing poverty, weak economies and rapid population growth. Human health, ecological systems and socio-economic systems, such as water resources, food production, coastal ecosystems, human settlements and biodiversity, are vital to sustainable development, and are already sensitive to climate variability under current climatic conditions in Africa. Future climate change will exacerbate the impacts on all of these systems, thus affecting the livelihood of the majority of the people.

25. Most countries in Africa benefited from the assistance of the United States Country Studies Programme (USCSP), the Netherlands Climate Change Assistance Programme, and the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP). In particular, countries appreciated the technical and training support provided by the National Communications Support Programme (NCSP), a joint initiative of UNDP, UNEP, and GEF.

26. The guidelines for the preparation of initial national communications by Parties not included in Annex I to the UNFCCC, contained in the annex to decision 10/CP.2, do not provide an adequate framework for the assessment of climate change impacts and identification of adaptation options and strategies. They provide insufficient information on implementing adaptation measures and/or response strategies and on how these measures and/or strategies should be integrated into the national planning process.

27. All five reporting countries carried out vulnerability and adaptation assessments (and studies) on agriculture and water resources. Two coastal countries also assessed climate change impacts on coastal zones and fisheries, and others included forestry, rangelands and biodiversity in their assessments. Human health was considered to be an emerging impact sector and could be very important for all the countries in Africa.

28. The use of baseline and climate change scenarios in modelling provide an effective tool in vulnerability assessments and the analysis of historical data series provide valuable information in validating and verifying the output of general circulation models (GCM).

29. Most vulnerability and adaptation assessments and studies in Africa were centred on a single sector, such as agriculture and/or water resources. Cross-sectoral and multi-sectoral approaches to impact assessments should be pursued in subsequent vulnerability and adaptation studies. In northern Africa, a regional approach to vulnerability and adaptation studies was taken by "pooling" the expertise from a number of countries in the Maghreb region. It was agreed that this approach should be encouraged in other regions of Africa, for example, in southern and eastern Africa, western and central Africa.

C. Abatement options

30. Although developing countries do not have commitments for limiting GHG emissions, all five reporting countries provided information on mitigation[5] options in their national communications. Workshop participants from other African countries indicated that mitigation options are being assessed for inclusion in their national communications. Developing countries have also given attention to the avoidance of emissions.

31. The UNFCCC guidelines (decision 10/CP.2, annex) do not provide the necessary framework for assessment of GHG abatement options. They also do not provide guidance on how Parties might use the information on nationally developed mitigation measures, such as the compilation of scenarios, into the national planning processes aiming at sustainable development.

32. All participating countries have identified mitigation options in the energy sector and many countries have also identified GHG abatement measures in the land-use change and forestry, transport, agriculture, industry and waste sectors, in that order of priority. In four of the reporting countries, some additional sectors have been analysed after submission of their initial communications. This highlights the fact that assessment of mitigation options is an ongoing process.

33. The most prevailing abatement option analysed by the participating countries in the energy sector was renewable energy. Other options include energy efficiency measures such as improved appliance efficiency and/or building standards, energy efficiency in the power sector and cogeneration, as well as conversion to cleaner fuel.

34. In the transport sector, the prevailing options are the improvement of modes of transport such as road, rail, underground, and river transport. The range of reported measures included switching to cleaner fuel, use of biomass fuel, public awareness (including training), improvement of traffic management, and implementation of policy measures relating to fuels and cars, promotion of improved vehicle technology, vehicle maintenance, and accelerated replacement of old vehicles.

[5] The secretariat uses the term mitigation in this chapter, in the same way that reporting Parties used it in their national communications reflecting efforts reported by Parties in abating, limiting or reducing GHG emissions in the context of their sustainable development plans.

35. Afforestation and/or plantation development is considered to be the most important mitigation option for the enhancement of sinks in the LUCF sector**.** Other mitigation options evaluated were preservation of existing forests (emission avoidance), reforestation, forest management and implementation of economic instruments such as imposition of taxes or granting of incentives.

36. For the agriculture sector, the main mitigation options analysed were improved agricultural land utilization and nutrient management, animal husbandry (diet alteration and improvement in feed quality) and improved management practices in rice cultivation.

D. Financial and technical needs

37. It is recognized that adequate financial and technical support is the most important requirement for building capacity to improve the quality and comprehensiveness of national communications from the region.

38. It is clear from country presentations at the workshop and from the compilation and synthesis reports on national communications from the region prepared by the UNFCCC secretariat, that the elements of information to be reported in the national communications in accordance with the UNFCCC guidelines are not adequately covered.

39. Significant constraints relating to financial and technical support for the preparation of the following elements of the national communications in accordance with the UNFCCC guidelines still exists.

Strengthening of national institutions and capacities for preparation of GHG inventories

40. Participants noted that continuity of inventory updating currently is not assured due to changes in the technical staff and institutions involved in the process. In some cases, the process has been interrupted either because of lack of funding or because of other changes that lead to the movement of technical staff. For these reasons, experts involved in inventory updating a few years later, have to "reinvent the wheel" and repeat the same process of training, identification of available data, etc. as their colleagues did in previous years, which is an expensive process. In many cases, the funds provided for the preparation of the national communications did not allow the Parties to address gases such as PFCs, HFCs and SF_6, or to elaborate national emission factors in some key sectors.

41. Institutional linkages among the institutions involved in the preparation of sectoral estimates of GHG emissions and those responsible for the preparation of the national communication are not well established in many countries of the region.

42. There are no technical national focal points for preparing national communications and this affects the coordination and preparation of national GHG inventories.

43. Networking among institutions and experts of the region participating in the preparation of national GHG inventories does not exist. An effective networking system, sharing technical and methodological information with relevant international organizations, also does not exist, affecting the sharing of experience and information. Information on the results achieved in other countries as well as relevant IPCC and UNFCCC documents do not always reach the experts responsible for the preparation of national inventories in the region.

44. Technical experts are not always involved in all relevant technical processes. Participants in the workshop acknowledged that there is not enough participation of African experts in international technical working groups related to inventories. It was also mentioned that many Parties have not yet submitted nominations for the roster of experts of the UNFCCC.

Vulnerability and adaptation assessment

45. Collaboration among national and/or regional experts and their participation in the development of climate change and socio-economic models for use in vulnerability and adaptation studies has been almost non-existent. Strengthening collaboration and cooperation among national and/or regional experts will facilitate a wider circulation and use of these models.

46. There has been a lack of regional and subregional cooperation in dealing with transnational issues and sectors such as water resources, coastal zones and rangelands. A sub-regional approach to modelling is required in North Africa, eastern and southern Africa and West Africa.

47. Up to now, vulnerability and adaptation studies have listed the various options for adaptation without examining how these options are going to be implemented. As a way forward, future studies should include an analysis of costs and benefits of implementing adaptation.

48. The financial and human resources available for vulnerability and adaptation assessment were not sufficient to cover all the vulnerable and relevant sectors. Many African countries were not able to carry out a number of sectoral studies relevant to their socio-economic development due to financial limitations. This problem needs to be solved through bilateral and multilateral programmes.

49. Countries agreed that there was a lack of documents in languages other than English, particularly on technical guidelines concerning vulnerability and adaptation. Versions in other languages are required in a timely manner.

50. A number of constraints and difficulties have been identified in vulnerability and adaptation assessments. These include:

(a) Insufficient and/or inadequate data and use of models. It was found in most vulnerability and adaptation studies that data availability, quality, archiving, updating and requirements for climate change modelling and impact analyses were poor. In addition, some model simulations of the current and future climates were found to be quite coarse or inappropriate, and GCM outputs used were unable to translate how global warming will affect changes in temperature and precipitation at the national and regional level;

(b) Difficulties in distinguishing impacts related to natural climate variability from those arising from human-induced climate change at the national and regional level. In undertaking the vulnerability and adaptation studies, no attempt was made to distinguish the impacts associated with the natural variability of the current climate and the impacts associated with the historical forcing of GHG concentrations in the atmosphere. The separation of climate variability and climate change will be important particularly in providing insights for future adaptation to climate change;

(c) Lack of scenarios for analysing impacts on various socio-economic sectors. Existing climate change and socio-economic scenarios were thought to be inadequate in modelling the impacts of future climate change. The vulnerability and adaptation studies did not give adequate consideration to impacts of climate change on socio-economic and cultural sectors of the countries;

(d) Lack of capacity-building activities focused on climate change. In many countries the science of climate change is new and requires more focused and longer-term training in vulnerability and adaptation studies, GCM development and application and policy-making;

(e) Many models available for impact assessments are not user-friendly and most of them provide only general insights into future impacts; there is therefore a need for country- and sector-specific models to take into account specific national needs;

(f) The workshop appreciated the UNEP/GEF proposal for developing stage II adaptation strategies in the eastern and southern African region and recommended initiating similar projects in other parts of Africa simultaneously.

51. Capacity-building, institutional, financial and research needs require urgently attention in order to undertake the activities relevant to implementing the UNFCCC. Further needs identified are:

(a) More national experts need to be trained in vulnerability and adaptation to continue working on the issues relating to climate change impacts and adaptation;

(b) Retaining national vulnerability and adaptation experts is vital and, therefore jobs in vulnerability and adaptation should be made available for these experts on a continuous basis. This will require active engagement of the national centres in attracting funding for such studies;

(c) There is a lack of networking among experts, both national and regional. Networking among experts in the field will enhance their capabilities through sharing of information and other resources;

(d) The institutional framework for implementing the UNFCCC is poor in some countries, which impinges on the successful management and timely completion of projects. This needs to be rectified at the national level;

(e) There is a need for a climate change office and/or unit with a full-time coordinator and a secretary to undertake and facilitate various tasks in vulnerability and adaptation studies and in implementing the UNFCCC at the national level.

52. The current vulnerability and adaptation studies have not been able to address the potential impacts of climate variability and change on non-market goods and services, which play an important role in the livelihood of individuals, communities and nations.

Abatement options

53. A number of constraints and difficulties in the GHG abatement assessment were identified as follows:

(a) Generally, most national communications do not base their assessments of mitigation options on a specific methodology for GHG abatement analysis. Many of them face difficulties in understanding the methodologies available for abatement assessment, exacerbated by lack of data and trained personnel to access and use the models and methodologies. Many participants in the workshop emphasized the need for guidance on a common basic methodology which could be followed in the selection of options across sectors. This may also facilitate comparison of the mitigation potential of the options proposed in the national communications. The disaggregation methodology of the IPCC for GHG inventories is sufficient for assessing and evaluating GHG abatement options in most sectors;

(b) The reporting Parties provided limited information on the methodology used to derive the amounts of sequestered carbon, particularly in the LUCF sector. Some Parties provided average estimates of carbon uptake and many of the mitigation options were not quantified. Many Parties did not report on the implementation status of the abatement options (i.e. proposed, ongoing, implemented). Most Parties reported on the projected emission reductions associated with the implementation of measures. National communications submitted did not specify how “business as usual” and mitigation emission scenarios were reached. Also, Parties expressed difficulty in aggregating mitigation scenarios in an appropriate and integrative manner. All countries reported on the energy sector using several time horizons: e.g. 2016/17, 2020, 2030 and 2050, partly associated with sectoral planning cycles and fiscal year.

Education, training and public awareness

54. The workshop noted the lack or inadequacy of national programmes of education, training and public awareness relating to climate change for the entire citizenry, including academia, research institutions, policy-makers, policy practitioners, media practitioners, industrial practitioners, spheres of formal and/or non-informal education, non-governmental organizations, and community-based organizations.

Information, networking and coordination

55. Participants noted that for almost all of the countries of the region there is a lack of facilities for regional information exchange and the development of expertise.

Formulation and implementation of climate change projects

56. There is lack of capacity to formulate project proposals in the required format and to implement approved climate change projects. In addition, there are problems of continuity in the project management teams.

Methodology

57. It was observed that, in many cases, country study teams did not use relevant models in their work because of non-availability of these models. Other constraints relate to lack of data and limited expertise in the use of the models. These were very evident in studies on mitigation and on vulnerability and adaptation.

Support programmes

58. The workshop noted the support that has been provided by several bilateral and multilateral programmes designed to provide assistance to African countries in the area of climate change. These include climate change enabling activity programmes of the GEF and bilateral programmes of the Governments of Denmark, Germany, the Netherlands, and the United States of America.

59. Most African countries benefited from assistance under the National Communications Support Programme. The design and focus of the present phase of that programme is at present insufficient to provide the length of training needed to carry out the studies under their enabling activity projects. It is however hoped that the project will be extended and that the new phase of the programme will be designed with maximum input from the beneficiary countries to ensure that the programme best meets their needs.

60. Notwithstanding the assistance provided by the above-listed programmes, significant capacities need to be built if countries of the region are to effectively implement their commitments as Parties to the Convention, as stipulated by Article 4.3, 4.5 and 4.7.

61. The workshop participants identified significant barriers and constraints in accessing resources under some of the above-listed programmes. These barriers include a lack of national expertise to formulate project proposals in accordance with the format and guidelines of the donor agencies.

62. Having inventoried and analysed the existing financial and technical support programmes, the workshop concluded that they are insufficient to help country Parties meet their commitments under the Convention.

IV. RECOMMENDATIONS AND FOLLOW-UP

A. Greenhouse gas inventories

Analytical and methodological issues (methods, activity data and emission factors)

63. The participants in the workshop identified the preparation and updating of inventories on a continuous basis by a stable national team as the most important element to overcome identified methodological problems, such as inappropriate use of activity data, application of

methods or selection of emission factors. The availability and quality of activity data was also considered by the participants as an important factor that affects the quality of GHG inventories. The use of inappropriate emission factors also negatively influences the inventory preparation.

64. The participants recommended that resources should be provided to countries in order to alleviate problems related to activity data and/or emission factors that could affect the reliability of the estimates of those emissions, which constitute an important share of the total national emissions. The participants also recommended that resources should be used efficiently. In line with this, they recommended that, in general, resources should not be used in developing national emission factors in source categories that do not represent an important share of total emissions. Firewood and charcoal for households were identified as source categories that deserve the development of emission factors in many countries of the region.

65. In the African region, the most important sectors are energy, LUCF and agriculture. With regard to the problem of the availability of activity data in the most important sectors, the participants agreed that a regional project on energy balances with the involvement of the existing capacities in the region should be implemented (annex I below contains a project concept note about this proposal). This project aims at improving the quality of existing national energy balances and at developing energy balances in those countries that do not yet have them. Interested Parties of the region may lead the project.

66. Participants also agreed that a regional project on LUCF[6] should also be implemented (see annex I) which would take up problems related to activity data, emission factors and conversion factors. This project, which may be led by interested Parties of the region, could be divided into subregional operative units representing the main ecological zones of the region. In addition, access to satellite data and training in the use of these data was seen as important for improvement of activity in the LUCF sector.

67. In addition to providing resources for the implementation of the two above-mentioned projects, it was proposed that funding for the second national communications of non-Annex I Parties should be adequate to undertake activities leading to the improvement of local emission factors when this is important to reduce the uncertainty of the inventories. Criteria, to be considered jointly, for ensuring the funding might be the following:

(a) When those emission factors are either not included in the IPCC Guidelines or are included but inappropriate for the national circumstances of a given country;

(b) When emission estimates calculated using those emission factors constitute an important share of the total emissions.

[6] This project, as well as the project on energy balances mentioned in the previous paragraph, constitute an elaboration of the project concepts prepared in the Accra workshop on emission factors and activity data held in 1999. The SBI recommended that any project concept notes contained in the above report which are developed into full project proposals by interested countries should be submitted to the GEF for consideration, in accordance with decision 10/CP.2, annex, paragraph 13 which encourages non-Annex I Parties to formulate and present for funding cost effective regional programmes aiming at the improvement of the quality of local emission factors and appropriate data gathering (FCCC/SBI/1999/INF.6).

68. This approach does not exclude the possibility that any country may have to formulate and present for funding cost-effective national programmes aiming at the improvement of the quality of local emission factors and appropriate data gathering. Paragraph 13 of the annex to decision 10/CP.2 encourages non-Annex I Parties to submit requests for financial and technical assistance for such programmes in addition to the request for support for the preparation of their initial communication.

69. Participants also considered the possible need to prepare future regional programmes aimed at addressing problems common to a group of countries of a given region, for example developing emission factors for biomass fuels, specific livestock categories, old fleets of transport, and specific waste management systems.

70. Networks of national communications teams sharing information on emission factors and activity data should be created and there is a need for exchange of information related to national inventories among the countries of the region. The experts noted that there are at present no processes to facilitate this information exchange, including any technical comparative analyses of those inventories. The feedback from these analyses is a key factor in improving the quality and reliability of the inventories, as well as in building the capacity of the experts involved in preparing inventories. This may facilitate the use of more appropriate emission factors, methods and activity data.

71. It is recommended that conditions be created to facilitate the technical assessment of the national inventories for those countries that would like to share the technical information with other countries of the region. This approach would generally allow the technical assessment of the inventories by experts who have closer knowledge of the national circumstances of a given country. The recommendation resulting from the assessment may be included in the national communication, if the country so wishes. Funding should be sought for these pre-submission assessments. This approach may be relevant for improving the quality of the national inventory and of other inventories from the region in a cost-effective way.

72. The participants urged UNDP, UNEP, IPCC and the UNFCCC secretariat to collectively work in order to find ways of disseminating and training in the IPCC good practice guidance among non-Annex I Party experts. In this sense, they asked UNDP to evaluate the possibility of having such good practice guidance translated into French with the use of existing funds. They also encouraged those organizations to develop a training kit for the application of the guidance in the preparation of GHG inventories by non-Annex I Parties, taking into account the specifics of each region. Experts of non-Annex I Parties have to be involved in this development.

73. The participants supported the preparation of the IPCC database on emission factors and requested this organization to design it in such a way as to facilitate the preparation of non-Annex I Party GHG inventories.

Strengthening of national institutions and capacities

74. Continuity in the process of preparing initial national communications should be ensured in order to motivate and facilitate the work of experts on climate change issues, particularly as it relates to the preparation of national inventories. The institutional linkages among the

institutions involved in the preparation of sectoral estimates of GHG inventories and those responsible for the preparation of the national communication should be strengthened.

75. National technical focal points should be designated for the preparation of national communications in the context of the Convention process.

76. Technical and financial support for activities related to GHG inventories should be sought from the GEF, bilateral donors and international organizations, and through collaboration between countries of the region. Different implementation activities should be better coordinated. In particular, adequate funding should be provided for the preparation of the second national communications, particularly to reduce uncertainties in the emissions and removals which constitute an important share of the national emissions. Ways should be found to formulate and implement the two project concept notes included in annex I below, which seek to address common problems for the region encountered in the most important GHG sectors.

77. National capacities should be developed to archive all national inventory data (activity data, emission factors, conversion factors, etc.) for past and current years that will facilitate the periodic preparation of better quality inventories in a cost-efficient way. In this sense, the participants welcomed the implementation of the UNDP Project Preparation and Development Facility proposal "Capacity-building for improving national GHG inventories". In particular, the participants suggested that the SBSTA give guidance to the GEF for the provision of funds to broaden the scope of the project to other regions, [7] such as eastern and southern Africa. The participants also requested UNDP to link this project with enabling activity projects in order to ensure the availability of appropriate hardware and software to archive and process the GHG inventory data for all involved Parties. Finally, it was recommended that this project should apply to Parties preparing both initial and second national communications.

78. It is necessary to create a regional network to share inventory information among experts and institutions involved in the preparation of inventories. Such a network should include a list of the experts and institutions involved, with a clear identification of their areas of expertise. It should promote effective interaction with relevant intergovernmental organizations, such as the IPCC. The participants invited regional institutions (African Development Bank, Economic Community of West African States, Southern African Development Community, United Nations Economic Commission for Africa, Permanent Inter-State Committee for Drought Control in the Sahel, Commission for East and South Africa, etc.) to promote climate change networking and to support regional initiatives and systematic observation networks in the region.

79. Financial and technical support should be provided to African non-Annex I Parties to assist them in the creation, development and maintenance of national web sites which could save expense in capacity-building and sharing information. The assistance may be provided within the framework of multilateral or bilateral cooperation.

80. National focal points of the region should submit a list of the technical experts involved in preparing the national communication to the UNFCCC secretariat, to be included in the roster of experts as soon as possible. In preparing such a list, the information to be provided by national coordinators of climate change enabling activities or other technical sources should be

[7] The PDF proposal will be initiated in West Africa as a pilot phase. It is envisaged that the proposal will be developed in six other regions of Africa, Asia and Latin America, but funds for the continuation of the project in other regions have not yet been approved.

taken into consideration. The CGE should consider action to promote the participation of technical experts in the work of SBSTA and the Conference of the Parties and international workshops of organizations such as IPCC, UNDP and UNEP.

Use and possible improvement of the UNFCCC guidelines

81. The participants recognized that the current UNFCCC guidelines prepared four years ago were of great value in facilitating the reporting of non-Annex I Parties. At the same time, they urged that the guidelines be updated in line with the experience of Parties and to enhance the quality of the inventories and the transparency of reporting. In this context, the participants made the following proposals for improving the UNFCCC guidelines:

(a) Non-Annex I Parties should apply the Revised 1996 IPCC Guidelines, as appropriate and to the extent possible;

(b) Table II of the UNFCCC guidelines should be replaced by the IPCC summary table 7A as the basis of reporting GHG emissions and removals;

(c) Non-Annex I Parties should be encouraged to provide, as appropriate, worksheets of the IPCC reporting format as an appendix to the GHG inventories included in the national communications, either in electronic form or in hard copy. The IPCC software, which is used by many non-Annex I Parties, allows for automatic reporting of both IPCC summary tables and worksheets;

(d) Non-Annex I Parties should be encouraged to report HFC emissions to the extent possible.

82. Three Parties provided the worksheets of the IPCC reporting format, and one Party provided the IPCC standard table. This format provides for more transparent reporting of the inventory data and facilitates the sharing of inventory information among experts and countries.

B. Vulnerability and adaptation assessments

83. The provision of adequate financial and technical support is a prerequisite for the implementation of the recommendations described below.

84. In order to build national support for climate change vulnerability and adaptation assessment and the implementation of adaptation strategies on a continuous basis, it is important to focus on key sectors and to encourage the participation of main stakeholders. It is also recommended that adaptation planning and implementation should be integrated with public awareness, education and training. Multidisciplinary teams need to be established to conduct vulnerability and adaptation studies focused on cross-sectoral assessments.

85. The establishment of implementation mechanisms, such as national climate change committees, provides a basis for the sustainability of work related to vulnerability assessments and implementation of adaptation strategies. These committees provide valuable support in facilitating the training of the teams needed to make new assessments of vulnerability and formulate policies and measures for adaptation, on an ongoing basis. Additionally, these committees can play a role in supporting the development of horizontal cooperation efforts in the region.

86. Training in the preparation of vulnerability and adaptation project proposals and in negotiating for GEF funds, in the context of the preparation of the subsequent national communications, should become an important part of the phase II enabling activities.

87. In order to preserve the data collected during the vulnerability and adaptation studies (including those to be generated in future), efficient databases need to be developed. To do this, the countries need the necessary infrastructure and tools such as computers, as well as training in this area. Furthermore, in order to have comparable data at regional level, there is a need for database formats that are consistent with the national needs and priorities to be defined, particularly by international organizations such as the Food and Agriculture Organization of the United Nations (FAO) and the World Meteorological Organization (WMO), which hold and manage a lot of data useful for climate change impact assessments. Training provided to national institutions and experts in database development and management should include data collection, archival and retrieval.

88. In order to consider vulnerability and adaptation assessment for the preparation of subsequent national communications, there is a need for guidance in the presentation of such assessments and the basic methodologies and models to be used in order to improve the quality and comparability of the national communications.

89. The participants recognized that the Consultative Group of Experts plays a vital role in providing guidance and assistance in the preparation of national communications by non-Annex I Parties. In this context, they recommended that the CGE should consider the need to revise the existing guidelines contained in the annex to decision 10/CP.2, particularly with regard to climate change vulnerability and adaptation assessments, with the aim of improving the quality and scope of information to be contained in subsequent national communications. Consideration of the guidelines should take into account the need to:

(a) Encourage and strengthen national institutions to develop ways in which GCM patterns can be downscaled to capture the likely effects of global warming on specific sectors at the national level. In the context of the need to downscale GCMs to regional and subregional level, the UNEP proposal to initiate a GEF project to build capacities in 30 to 50 developing countries with the involvement and assistance of the IPCC was supported;

(b) Request the IPCC to undertake further scientific work to distinguish between impacts that are related to climate variability and those arising from human-induced climate change;

(c) Obtain financial and technical assistance from organizations, such as the United Nations, particularly in the areas of education and training in climate change vulnerability and adaptation issues;

(d) Request the cooperation and collaboration of the World Health Organization on issues related to climate change impacts on human health;

(e) Ensure that guidance is provided to non-Annex I Parties on ways and means of integrating climate change issues into national planning processes;

(f) Encourage the development, introduction and use of "good practices" in the area of vulnerability and adaptation assessments. This may involve the selection and use of methodologies and models capable of generating indicators of vulnerability and adaptation for comparative analysis across countries and sectors, as well as a process of review, evaluation and refinement of adaptation options and opportunities for implementation;

(g) Encourage the regional exchange of experience, lessons learnt, problems and constraints encountered in undertaking the vulnerability and adaptation studies. Workshops should be facilitated and coordinated by the UNFCCC secretariat and other organizations through regional integration meetings aimed at strengthening the implementation of the UNFCCC, and with the focus on adaptation policies and measures.

90. In the light of the experience gained in the region, the CGE is requested to consider as far as is practicable, efforts to enhance the sustainability of technical and training support provided by various programmes such as the National Communications Support Programme, which facilitate the preparation of national communication by non-Annex I Parties.

C. Abatement options

91. The provision of adequate financial and technical support, as well as capacity-building in such areas as institutional strengthening, human resource development, methodologies, technology assessment and networking, are a prerequisite for the implementation of the activities described below.

92. The participants recognized that there has been limited exchange of information and experience regarding assessment of abatement options and therefore strongly recommended that regional exchanges of experience and training in the area of GHG abatement methodologies and assessment should be encouraged under the auspices of the NCSP, other organizations and/or bilateral agencies, with the active participation of the UNFCCC secretariat. They also agreed that regional centres need to be strengthened in terms of capacity and financial resources to be able to assist countries of the region in undertaking GHG abatement assessments. This should be done with the assistance of regional and international organizations (UNEP, UNDP and others) and/or bilateral donors. In the area of education and training, the participants recommended that climate change should be encouraged in the national education and research curricula.

93. The main recommendations were:

(a) The guidelines for the preparation of national communications included in the annex to decision 10/CP.2 need to be revised in order to provide a framework for a systematic assessment of mitigation options, including scenarios. The modifications are exclusively intended for internal national purposes aimed at including mitigation actions in the national planning for sustainable development;

(b) There is a need for improvement and enhancement of the process of preparation of national communications, including:

(i) Identifying and developing key policy interventions in supporting the GHG abatement options;

(ii) Enhancement of public awareness regarding GHG abatement and encouraging the involvement of key stakeholders, as appropriate, in the development and implementation of such options;

(c) In modifying the UNFCCC guidelines, there is a need to include guidance on the assessment of GHG abatement options. These guidelines should consider the following key issues:

(i) Methodologies. The guidelines should encourage the use of appropriate tools. These tools may include a variety of models and methods that are being used in the analysis of abatement options in various sectors;

(ii) A mitigation assessment should include at least two scenarios for each sector, a baseline or reference scenario (which is a description of a plausible future in which no policy action is taken to reduce GHG emissions or enhance carbon sinks) and mitigation scenarios which assume that policies and programmes are implemented;

(iii) Reporting. There is a need for clear definitions and/or terminology on the sectors, units, indicators, parameters and country-specific assumptions used in the abatement analysis and reporting of mitigation options in the national communications;

(iv) Selected mitigation options should include an indication of the status of progress (planning, ongoing, implemented) of such measures;

(v) The results of the analysis of abatement options should be adequately reported for comparability purposes. In addition, also for comparability reasons, constraints such as national five-year planning horizons or fiscal years deviating from the calendar year should be overcome;

(d) Support for cost-benefit analysis to evaluate the proposed GHG abatement options and the development of emission scenarios needs to be strengthened;

(e) A clearing house mechanism needs to be established to provide assistance in technology assessment and analysis of costs;

(f) Considering that evaluated mitigation options with high potential are similar for many countries, there is a need for exchange of experience in areas such as carbon sequestration, energy efficiency, fuel switching, energy efficient lighting and renewable energy technologies;

(g) The implementation of “no-regrets” GHG abatement options through, *inter alia*, removal of barriers (e.g. with GEF support) should be encouraged;

(h) The development of national strategies for participation in the mechanisms under Kyoto Protocol should be encouraged, for the implementation of prioritized GHG abatement options which carry incremental cost;

(i) Taking into consideration the work done on GHG abatement analysis by the National Communications Support Programme it is requested that, as far as practicable, the support to this mitigation process (analysis etc.) be continued;

(j) Training is needed in the preparation of project proposals and for negotiating for funds from the GEF on GHG abatement in the context of the preparation of the subsequent national communication under phase II of the enabling activities process;

(k) Fully cost-efficient abatement in the energy sector should consider all available abatement options, at the end-use, conversion and production stages;

(l) For improving the coherent analysis of mitigation options in the national context and for facilitating the cross comparison of such options, a set of evaluation criteria should be developed;

(m) It would be useful to develop indicators such as GHG emission intensity per unit of gross domestic product in order to monitor progress of the implementation of the mitigation measures in relation to the sustainable development of the country.

Annex I

PROJECT CONCEPT NOTES

1.0 PROJECT TITLE: IMPROVEMENT OF NATIONAL CAPACITIES TO COLLECT ACTIVITY DATA AND TO DEVELOP AND/OR IMPROVE EMISSION FACTORS AND TRANSFORMATION COEFFICIENTS FOR RELEVANT ECOLOGICAL ZONES IN AFRICA.

1.1 Background

The Havana and Accra workshops on the improvement of activity data and emission factors concluded that there is the need for more accurate emission factors and activity data in order to produce good quality GHG inventories.

1.2 Project rationale

Land-use change categories used in the IPCC Guidelines are too broad and do not allow recognition of significant regional vegetation types. Coefficients and emission factors change significantly from one vegetation type to another, as well as from one locality to another. Other issues of concern include:

(a) Activity data are lacking or not accessible in many countries.
(b) Guidelines are not appropriate for African countries, e.g. local classification of forests.
(c) Guidelines are not clear enough for consistent reporting.
(d) Emission factors for charcoal production are lacking.
(e) No country-specific conversion factors are available.

1.3 Objectives

The main objectives of the study are:

(a) To improve the capacity of the African region to prepare and report GHG inventories in the LUCF sector; and to identify an appropriate classification of forests for different ecological zones of the African region;

(b) To identify ways to collect activity data or conversion factors, such as areas converted, areas abandoned, net change in biomass density and fraction of biomass burned on site, on a periodic basis;

(c) To use emission factors in line with the specific circumstances of the African region;

(d) To have access to the use of satellite data and training in their interpretation as a tool for improving the collection of activity data on LUCF;

(e) To generate activity data and emission factors to be used for GHG inventories through:

- Social and forest surveys,
- Forest inventory studies and experimental research;

(f) Development of regional emission factors for charcoal.

2.0 PROJECT TITLE: IMPROVEMENT AND REALIGNMENT OF ENERGY BALANCES IN THE AFRICAN REGION.

2.1 Project rationale

Many countries in the African region reported difficulties in collecting activity data in the energy sector. Others reported that the structure of the energy balances differs from that which is needed for preparing inventories in the energy sector using the IPCC sectoral approach.

Some experts mentioned that there are still some African countries which do not have energy balances.

Since the best source of activity data for both fossil and biomass fuels is the energy balance, it is essential that energy balances should be refined and realigned with the IPCC reporting format (where energy balances exist), and energy balances developed where they do not exist yet.

2.2 Objectives

The objectives of the study are:

(a) To refine energy balances and realign them with the IPCC reporting format where energy balances exist;
(b) To develop energy balances where they do not exist.

2.3 Scope of activities

This includes:
(a) Verification of the existence of energy balances.
(b) Review methodology used for data collection of existing energy balances so as to improve the reliability of information.
(c) Disaggregation of the format of the energy balance to suit the IPCC reporting format.
(d) Development of an energy balance based on the revised methodology referred to above when one does not exist.

2.4 Expected outputs

A methodology and energy balance that will make more reliable and detailed energy supply and energy end-use data available to produce the activity data needed for the GHG inventories of the African region.

Annex II

SUPPORTING MATERIAL

Decisions of the Conference of the Parties

1. Decision 11/CP.1 - Initial guidance on policies, programme priorities and eligibility criteria to the operating entity or entities of the financial mechanism (FCCC/CP/1995/7/Add.1).

2. Decision 10/CP.2 - Communications from Parties not included in Annex I to the Convention: guidelines, facilitation and process for consideration (FCCC/CP/1996/15/Add.1).

3. Decision 11/CP.2 - Guidance to the Global Environment Facility (FCCC/CP/1996/15/Add.1).

4. Decision 2/CP.4 - Additional guidance to the operating entity of the financial mechanism (FCCC/CP/1998/16/Add.1).

5. Decision 12/CP.4 - Initial national communications from Parties not included in Annex I to the Convention (FCCC/CP/1998/16/Add.1).

6. Decision 8/CP.5 - Other matters related to communications from Parties not included in Annex I to the Convention (FCCC/CP/1999/6/Add.1).

Other UNFCCC documents presented at the workshop

1. Report of the first regional workshop of the Consultative Group of Experts on national communications from non-Annex I Parties of the Latin America and the Caribbean region (FCCC/SBI/2000/INF.4).

2. Working paper No. 9 (2000) - Report of the working group on national greenhouse gas inventories (workshop of the Consultative Group of Experts on national communications from non-Annex I Parties of the Latin America and the Caribbean region).

3. Working paper No. 10 (2000) - Report of the working group on vulnerability assessment and adaptation options (workshop of the Consultative Group of Experts on national communications from non-Annex I Parties of the Latin America and the Caribbean region).

4. Working paper No. 11 (2000) - Report of the working group on financial and technical needs (workshop of the Consultative Group of Experts on national communications from non-Annex I Parties of the Latin America and the Caribbean region).

5. Working paper No. 12 (2000) - National greenhouse gas inventories of non-Annex I Parties of the African region. Preliminary synthesis. Methodological issues.

6. Analysis of decision 8/CP.5: Consultative Group of Experts, presented at the workshop.

7. Vulnerability and adaptation assessments of some African countries. Preliminary synthesis and methodological issues, presented at the workshop.

8. Preliminary synthesis of mitigation assessment options in some African countries, presented at the workshop.

9. Problems identified in the African region regarding financial and technical support for the preparation of national communications, presented at the workshop.

Other documents

1. Mimura, N., (Ed), "National assessment results of climate change impacts and responses", *Climate Research Special 6*, ed. Inter-Research, Olendorf/Luhe, 1999.

2. Carter, T. R., Parry, M. L., Harasawa, H., Nishioka, S., *IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptations*, ed. IPCC (WMO/UNEP). Cambridge University Press, 1994.

3. "Impacts, adaptations and mitigation of climate change: scientific-technical analyses", *IPCC Second Assessment Report: Climate Change 1995* , chapter IV, ed. IPCC (WMO/UNEP), Geneva, 1995.

4. Watson, R.T., Zinyowera, M.C., Moss, R.H. (Eds), "The regional impacts of climate change: an assessment of vulnerability", *Special Report of IPCC Working Group II*, ed. IPCC (WMO/UNEP). Cambridge University Press,1997.

5. *Handbook on Methods for Climate Change Impact Assessment and Adaptation Strategies*, UNEP/IVM, 1998.

6. Draft MAGICC & SCENGEN Workbook, National Communications Support Programme (UNDP/UNEP/GEF).

7. Reports of National Communications Support Programme (UNDP/UNEP/GEF) thematic workshops on vulnerability and adaptation assessment: (a) Port of Spain, Trinidad and Tobago, 19-22 July 1999, and (b) Mexico City, Mexico, 8-10 September 1999.

Other supporting material

1. UNFCCC compendium of decision tools to evaluate adaptation strategies to climate change, http://www.unfccc.int/program/meth/index.html, May 1999.
2. Mitigation analysis in east and southern Africa. Paper presented by R. S. Maya, Southern Centre for Energy and Environment, Harare, Zimbabwe. Regional exchange workshop for eastern and southern African countries, NCSP, Nairobi, Kenya, 14 August 2000.

3. Main findings and problems identified in preparing national communication in Tanzania. Paper presented by Stephen M. Mwakifwamba, Centre for Energy, Environment, Science and Technology (CEEST), Dar-es-Salaam, Regional exchange workshop for eastern and southern African countries, NCSP, Nairobi, Kenya, 14 August 2000.

Annex III

AGENDA OF THE AFRICAN REGIONAL WORKSHOP OF THE CONSULTATIVE GROUP OF EXPERTS, NAIROBI, KENYA, 15-18 AUGUST 2000

Tuesday, 15 August 2000

08:30 Registration

09:00 Opening session

Welcome address by Mr. Bakary Kante, Director, Policy Development and Law, UNEP, Nairobi
Statement of Ms. Bo Lim by Mr. Ravi Sharma, National Communications Support Programme
Opening address by the Honourable Francis Nyenze, Kenyan Minister of Environment and Natural Resources

09:30 Break

10:00 Adoption of the agenda and administrative matters.
Self-introduction of participants and resource persons.

10:10 Introduction to workshop and analysis of decision 8/CP.5: Consultative Group of Experts, Martha Perdomo, UNFCCC secretariat

10:25 National GHG inventories of non-Annex I Parties from Africa: Preliminary synthesis and methodological issues, Roberto Acosta, UNFCCC secretariat

10:45 Discussion on presentations

11:00 Coffee break

11:20 Presentation of countries' experiences with the preparation of the GHG inventories.

LUCF	Dr. Kadio Ahossane	(Côte d'Ivoire)
Agriculture and waste	Prof. Ayite-Lo Ajavon	(Togo)
Transport/Energy and LUCF	Mr. Jasphat Agatsiva	(Kenya)

12:00 Discussion on GHG inventory presentations

12:30 Lunch break

14:30 Presentation of outputs from NCSP regional exchange workshop

Ravi Sharma, (UNEP) – Shakespeare Maya (Zimbabwe), F.D. Yamba (Zambia), Stephen Mwakifwamba (United Republic of Tanzania)

15:00 Discussions

15:20 Problems related to the assessment of GHG abatement options in developing countries: Introduction, Dominique Revet, UNFCCC secretariat

15:30 Countries' experiences in assessment of GHG abatement options in specific sectors.

Energy	Mr. Herrman Wiechers	(South Africa)
LUCF	Dr. Todd Ngara	(Zimbabwe)
Residental/commercial and transport	Mr. Bruno Sekoli	(Lesotho)

16:00 Discussions on GHG abatement presentations

16:10 Coffee break

16:30 Vulnerability and adaptation assessments of non-Annex I Parties from Africa: Preliminary synthesis and methodological issues, Graham Sem, UNFCCC secretariat

16:45 Presentation of countries' experiences with the preparation of vulnerability and adaptation assessments:

Water resources	Dr. Yaw Opoku-Ankomah	(Ghana)
Agriculture	Mr. Bernard Gomez	(Gambia)
Forestry	Mr. James Magezi-Akiiki	(Uganda)
Coastal zones	Dr. Isabelle Niang-Diop	(Senegal)
Generation of climatic and socio-economic scenarios		
	Dr. Isabelle Niang-Diop	(Senegal)

17:45 Discussions on vulnerability and adaptation presentations

18:15 Close

Wednesday, 16 August 2000

9:00 Problems identified in the region regarding financial and technical support for the preparation of national communications:
Introduction, George Manful, UNFCCC secretariat

9:15 Countries' experiences related to financial and technical support:

Mr. Abel Mbewe	(Zambia)
Mr. Audace Ndayizeye	(Burundi)

10:00 Discussion on financial and technical support presentations

10:15 Plenary I
Chairperson: Prof. Ayite-Lo Ajavon (Togo)

The plenary will meet to set the agenda for four working groups (WGs) to be established during the session. The working groups will deal with GHG inventories, GHG abatement, vulnerability and adaptation assessment and financial and technical support. The WGs will conduct their deliberations in parallel on Wednesday and Thursday 16-17 August 2000). The rapporteur of each group would report on the deliberations of the group using an agreed reporting format.

Working group I (GHG inventories):

Chair:	Prof. Ayite-Lo Ajavon	(Togo)
Rapporteur:	Mr. Jasphat Agatsiva	(Kenya)

The working group on GHG inventories issues will address the following:

Identify analytical and methodological issues, including technical problems in the preparation and reporting of GHG inventories. Make specific recommendations for improvement of data collection, and for the development of local and regional emission factors and activity data, particularly in the energy and land-use change and forestry sectors;

Identify relevant activities related to inventories in the process of preparing second national communications by non-Annex I Parties;

Identify difficulties encountered in the use of the section of the guidelines contained in the annex to decision 10/CP.2 which relates to inventories. Make recommendations for improvement, where appropriate.

Working group II (Vulnerability and adaptation assessment)

Chair:	Dr. Isabelle Niang-Diop	(Senegal)
Rapporteur:	Dr. Yaw Opoku-Ankomah	(Ghana)

The working group on vulnerability assessment and adaptation options will address the following issues:

Consider information in African national communications submitted so far, in accordance with the guidelines for the preparation of initial national communications by Parties not included in Annex I to the Convention contained in the annex to decision 10/CP.2;

Identify the difficulties encountered in the use of the UNFCCC guidelines and in the use of the Intergovernmental Panel on Climate Change (IPCC) methodologies and other models, and make recommendations for improvement where appropriate;

Exchange experience (including regional and subregional) and information on the assessment of vulnerability and adaptation options during the preparation of national communications.

Working group III (Abatement options)

Chair:	Mr. Herrman Wiechers	(South Africa)
Rapporteur:	Dr. Ahmed Amin	(Egypt)

The working group on abatement options will consider the following:

Information in national communications submitted so far from African countries, in accordance with the guidelines for the preparation of initial national communications by Parties not included in Annex I to the Convention contained in the annex to decision 10/CP.2;

Identify analytical and methodological issues related to analysis of abatement options as well as the difficulties encountered in the use of the UNFCCC guidelines annexed to decision 10/CP.2 and make recommendations for improvement, where appropriate;

Exchange experience (including regional and subregional) and information on assessment of mitigation options during the preparation of national communications;

Identify issues related to mitigation actions in the context of sustainable development.

Working group IV (Financial and technical needs)

Chair:	Mr. Abel Mbewe	(Zambia)
Rapporteur:	Mr. Abebe Tadege	(Ethiopia)

The working group on financial and technical needs related to the preparation of national communications will address the following:

Identify the needs for and availability of financial resources and technical support for the preparation of all elements of the national communications of countries from the region, as well as the barriers to and gaps in the support. Make specific recommendations for improving the

provision of financial and technical assistance in order to facilitate the national communication process;

Review existing activities and programmes to facilitate and support the preparation of national communications by the countries of the region. Make recommendations to better coordinate these activities and programmes in order to enhance the preparation of national communications;

Identify the needs for strengthening national institutions in the preparation of national GHG inventories, including capacity-building;

Identify the capacity-building needs of the region including technology transfer and the process of preparing second national communications by non-Annex I Parties.

18:30 Close

Thursday, 17 August 2000

09:00 **Working groups** (continuation)

18:30 Close

Friday, 18 August 2000

09:00 **Plenary II**

Presentation and discussion of the reports of the working groups by chairs/rapporteurs of the working groups.

10:30 Report writing

A drafting group, comprising the five regional members of the CGE, the chairs/rapporteurs, and staff of the UNFCCC secretariat, will draft the workshop report based on the inputs of the working groups and the recommendations from Plenary II.

16:00 **Plenary III**
Consideration and adoption of the workshop report

18:00 Close

Annex IV

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