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**Convention to Combat
Desertification**

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**IMPROVING THE EFFICIENCY AND EFFECTIVENESS OF THE
COMMITTEE ON SCIENCE AND TECHNOLOGY**

Report of the first meeting of the Group of Experts

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I. INTRODUCTION

1. At its fifth session, the Conference of the Parties (COP) decided that the work of the Group of Experts (GoE) should be based on themes, activities and issues of relevance to the Convention and should concentrate not only on collection of information (knowledge), but also on the following elements as defined in the Programme of Work of the GoE (annex I to ICCD/COP(6)/CST/INF.1):

- the current state of knowledge;
- the extent and the scale of impact;
- opportunities for mitigation; and
- policy implications.

2. The central theme of the Programme of Work is land degradation and land use, with different sub-themes (see section I "Summary of priority themes" of the same annex):

- assessment of desertification (focusing on bio-physical aspects, such as soils, water resources, vegetation etc.);
- vulnerability (benchmarks and indicators, early warning systems);
- conservation and rehabilitation (traditional knowledge, best practices);
- poverty reduction and sustainable development in drylands (socio-economic aspects, land tenure, alternative livelihoods, stakeholder participation, gender integration, public awareness etc.); and
- development of synergies with other initiatives.

II. MEETING

3. The GoE met in Hamburg, Germany, from 4 to 7 November 2002, to review the Programme of Work, to identify the Group's tasks (see annex I to this document) and to develop its work plan for the forthcoming years (see annex II to this document).

4. The Group decided that its organizational form should be the following:

Coordinator of the facilitation committee of the GoE:

Dr. David Anthony Mouat (United States of America)

Regional focal points, members of the facilitation committee of the GoE:

Dr. Mohamed Badraoui (Morocco)
Dr. Ryszard Debicki (Poland)
Prof. Anders Hjort af Ornas (Sweden)
Dr. Fernando Santibanez (Chile)
Prof. Kazuhiko Takeuchi (Japan)

It was also decided that regional focal points would have a rotating mandate.

5. The list of participants at the meeting is given in annex III.

Annex I**TASKS FOR THE GROUP OF EXPERTS**

In its discussion on the Programme of Work, the Group of Experts formed a Work Plan, using it as a quickly produced tool aimed to start up analyses and comments on the Programme of Work. One of the products out of that process was a list of tasks, containing the research tasks provided by the Programme of Work. Numbering is kept intact in order to facilitate cross-referencing to the Work Plan.

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| 1. | The task of the Group of Experts concerns how collaborative partnership between the international, regional and national levels connects with desertification issues such as deforestation, land degradation and poverty. With an emphasis on stakeholders and their decision-making, certain key issues are stressed: behavioral attitude, land tenure, secure livelihoods, and policy coherence and capacity. |
| 2. | Applied research approaches need to be systematically implemented. A methodology should be developed to translate research findings into applied forms for policy applications. |
| 3. | Synthesis research is needed. A methodology should be developed to establish synthesis on key desertification research issues. The ambition is to provide state of knowledge with reference to specific issues. |
| 4. | Networking around concrete implementation issues calls for methodological arrangements. The Group of Experts should set up a proper format for this in order to facilitate improved interaction potential between today's various relevant networks. |
| 5. | The work of the Group of Experts should be linked with existing UNCCD programmes at various levels. A methodology needs to be developed for effective cross-cutting. |
| 6. | A policy recommendation should be developed to make appropriate mechanisms of scientific and technological cooperation and of dissemination available to all interested people. Such mechanisms could comprise of funds, institutions, experts, projects, possibilities for publication and dissemination of results. When concentrating on this dissemination, two directions are indicated: to promote and articulate research projects, and to promote awareness about desertification and drought between stakeholders. |
| 7. | Taking stock and drawing conclusions from ongoing assessments of desertification at global level could be the starting point for the update of the World Atlas of Desertification. The Group of Experts should then assess the extent and degree of global land and soil degradation. |
| 8. | The Group of Experts should establish a "science plan" for land degradation research. |
| 9. | The "science plan" should be developed into a key task. This calls for a regular reviewing procedure. In this way national and regional programs will be enabled to take into account research needs and to contribute to the assessment exercise. |
| 10. | The Group of Experts should develop a mechanism which can facilitate coordination of activities and exchange of data, experience and results. The format could be a thematic data net. Ambition level should be such as to ensure that sufficient information flow takes place between national coordination centres during the periods between Conferences of the Parties. |
| 11. | The current state of knowledge on land degradation could be reviewed. Focus would then be on existing methods, technologies and best practices for the assessment of desertification. One necessary step is to establish baselines in order to serve as a common reference for monitoring. |

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| 12. | A special cost-effective technique needs to be developed for the purpose of reviewing current state of knowledge about land degradation. This methodology development takes stock of other research and development efforts in this field of developing cost-effective techniques. |
| 13. | The Group of Experts should consider proposing benchmarks to be used by the Parties to the Convention, serving as a common reference point to monitor progress. |
| 14. | On opportunities for mitigation and implications for policy: The Group of Experts could synthesize available information on useful monitoring and evaluation tools, including indicators for assessing desertification and mitigation efforts. Attention should be paid to impact indicators on the civil society. One possible approach would be to develop “tool boxes” that will catalogue and analyse a few case studies, to illustrate specific problems with the use of benchmarks and indicators, and possible solutions to them, as well as best practices and lessons learned. |
| 15. | The Group of Experts might wish to carry out some additional work on benchmarks and indicators. It is important that the Group of Experts should take a first step to further develop and elaborate mission-oriented benchmarks and indicators. The Group of Experts should analyse the interrelationship between the socio-economic and biophysical factors. Relevant benchmarks and indicators should be used as parameters when using models. |
| 16. | Proposals should be formulated for pilot studies to integrate results of studies on benchmarks and indicators, traditional knowledge, and early warning systems. In such pilot studies, the benchmarks and indicators that have been developed/elaborated, should be applied in actual areas, and actions should be implemented, integrating the results of traditional knowledge and early warning systems for the respective regions. Such pilot studies should focus on an assessment of land degradation, vulnerability and rehabilitation (risk management) using an integrated approach, and, in particular, desertification mapping relevant to integrated natural resource management. |
| 17. | The Group of Experts should work at systematizing existing research where stakeholders at different levels are involved, connect their activities with land use and focus on specific asymmetric relations between stakeholders. |
| 18. | The working methodology for such an undertaking should be twofold: <ul style="list-style-type: none"> • Firstly, a research activity should concern land use and management. • Secondly, it should deal with poverty situations in drylands. |
| 19. | The screening of existing research should be confined to a small number of central issues, e.g. <ul style="list-style-type: none"> • Economic relations • Land tenure • Knowledge formation • Environmental security |
| 20. | The Group of Experts might review the options for mass utilization of scarce water resources. Two approaches are available: (a) water treatment, leading to the reduction of the risks; and (b) use of salt-tolerant crops. Water treatment includes desalination technologies and biological treatment for reducing organic load and toxic compounds of wastewater. Salt tolerant crops include breeding and genetic engineering of plants, and introducing aquaculture for production of proteins and chemical compounds. This approach may revolutionize human life in drylands, by both improving traditional agricultural livelihoods and adapting novel and sustainable alternative ones. It will lead to the sustainability of development and avoidance of further desertification. |

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| 21. | It was suggested that the Group of Experts should offer assistance on the implementation of integrated strategies and development programmes in affected regions to reduce rural poverty and to increase food security. |
| 22. | Several Parties offered additional recommendations on the Programme of Work for the Group of Experts that further develops and validates the work of previous ad hoc panels on traditional knowledge and early warning systems. |
| 23. | (repetition of 22) |
| 24. | The Group of Experts should study the link between desertification and agricultural practices focusing on alternative livelihoods. |
| 25. | (deleted) |
| 26. | The Group of Experts should come up with conclusions on the revision of the current list of indicators, part of the UNCCD Help Guide, in the light of ongoing implementation experiences and with special attention to specific indicators, particularly those relating to civil society participation. |
| 27. | On the link between environmental problems and land use: The task of the Group is to provide suitable methodology and techniques to solve land use and environmental problems. |
| 28. | Synergy with other conventions or multilateral environmental agreements: The Group of Experts will check on various initiatives towards streamlining and look into the integration process specifically with attention to performance of subsidiary bodies like the CST. |

Annex II

**FOUR-YEAR WORK PLAN OF THE GROUP OF EXPERT
PLANNING MATRIX (Estimated period: 2002-2006 – Prepared in November 2002)**

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| Overall goal (proposal): Policy makers incorporate scientific recommendations into their decision making | | |
| Specific purpose (proposal): Help in providing information and expertise to CST in order that the world community and the general public can be efficiently sensitized on desertification matters | | |
| Results and activities: 1. Assessment of desertification and land degradation (Group 1) 1.1 Assess desertification on the global, regional and national levels (Coordinator: Takeuchi; Members: Mouat, Folorunso, Vermes, Wang, Ahmadi...) (Tasks 11, 14, 7) 1.1.1 Evaluate and structure methodology for assessment of desertification across the scales (global, national, regional and local level) 1.1.2 Review criteria and basis on which desertification assessment is evaluated 1.1.3 Draw conclusion from the methodology review and review criteria 1.2 Help in providing an updated World Atlas of Desertification (global and regional) (Status, causes, role, changes) (Coordinator: Vermes; Members: Ahmadi...) (Task 7) 1.2.1 Review current status of mapping and the Atlas itself (2004) 1.2.2 Determine the criteria on what basis the Atlas can be accomplished (2005) 1.2.3 Prepare recommendations for the terms of reference and development of mapping (2006) 1.3 Assist in providing a science plan for land degradation research (Coordinator: Folorunso; Members: Wang, Vermes...) (Tasks 8 and 9) 1.3.1 Review and prioritize current research activities (2003) 1.3.2 Identify and prioritize new research needs (2004) 1.3.3 Identify international and regional research programmes (sponsors) (2005) 1.3.4 Draw up comprehensive report (2006) 1.4 Help in developing a web-based glossary of terms relevant for desertification (Glossary) (Coordinator: Debicki; Members: Sciortino, Ozden, Vermes...) (Task 10) 1.4.1 Review literature and national standards 1.4.2 Query databases (ISCO, IUSS, UNEP, COPs, FAO, ISO, OECD, etc.) | 1.1 To be finalized until 2004; 1.1.1 Interim-Report to be provided for COP 6 through the CST in 2003 and to be reviewed during next GoE meeting in April 2003; interim report will focus on status of monitoring and assessment; NAP review; TPN activities as well as linkage between different scales 1.1.2 Interim-Report to be finalized for COP 6 in 2003 and to be reviewed during next GoE meeting in April 2003; interim report will focus on global criteria versus local criteria, on the gap between knowledge and application as well bio-physical and social economic vulnerability 1.1.3 To be finalized by 2004; the report will develop the theme vulnerability mapping for sustainable land uses, effectiveness of desertification assessment. Report will develop a multi-scale assessment strategy and systemize the standardized and localized criteria 1.2 Preliminary progress report with financial needs will be submitted to COP 6 through the CST in 2003 1.2 To be finalized until November 2006 1.3 To be finalized until November 2006; 1.3.1 until 2003; 1.3.2 until 2004; 1.3.3 until 2005; 1.3.4 until 2006 1.4 To be finalized by 2004, then continues updating 1.4 Draft terms of references for the glossary by March 2003, to be discussed at GoE meeting in April 2003 1.4 Internet based glossary operational by May 2003 1.4 Report to COP 6 through CST on progress in developing a web based glossary | 1.3 Expert months (20) needed 1.3 Eight consultants months needed 1.4 Network consultants needed: 6 expert months and hard- and software |

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| <p>1.5 Reinforce a mechanism for an interactive and thematic data/metadata network (Coordinator: Sciortino; Members: Debicki, Ozden...)</p> <p>1.5.1 Develop recommendation on how to use existing thematic data bases or sets (GIS, etc.)</p> <p>1.5.2 Help in compiling and developing standardized and uniformed data bases</p> <p>1.5.3 Create an internet forum for discussion</p> <p>1.5.4 Develop meta data basis</p> | <p>1.5 Write a report before next COP; Complete activity to be finalized by 2004, then ongoing activity</p> <p>1.5 Internet based archive of scientific documents collected by GoE operational by March 2003</p> <p>1.5 Draft terms of reference for a network for information system on desertification</p> <p>1.5 Report to COP 6 through the CST in 2003; Report on the proposal of a network of national information system</p> | |
| <p>1.6 Assist in developing a common benchmarks (common reference) and indicators system for monitoring (and evaluation) of desertification (Coordinator: Abraham; Members: Tesarova, Santibanez, Sokolovska, Castillo, Badraoui, Febles, Vermes, Nascimento)</p> <p>1.6.1 Evaluate existing indicators</p> <p>1.6.2 Develop methodologies for the development of indicators</p> <p>1.6.2.1 Prioritize and develop core set of indicators</p> <p>1.6.2.2 Determine cost effectiveness of indicators</p> <p>1.6.2.3 Determine method of use of indicators</p> <p>1.6.2.4 Determine existing use (or use of existing) indicators and their results (success criteria)</p> <p>1.6.3 Propose a set of management indicators oriented to the demands and needs of policy makers (consider existing frameworks e.g. LADA, European Environment Agency, OECD, EMAP EPA and others)</p> <p>1.6.4 Develop training modules and implement some training sessions</p> <p>1.6.5 Disseminate results, lessons learnt and recommendations</p> | <p>1.6 To be finalized by 2006</p> <p>1.6.1 To be finalized until end of November 2003</p> <p>1.6.2 To be finalized until November 2005: a) Proposal of unified/ standardized methodology applicable at global, regional, national and local levels, b) Develop a core set of "leader" indicators; c) Validation of the model in selected pilot studies</p> <p>1.6.3 To achieve by November 2005; A proposal of set of simple economic available and sensitive indicators oriented to decision makers</p> <p>1.6.4 To be finalized until November 2005; Set of training modules oriented to different stakeholders developed</p> <p>1.6.5 Report on results and lessons learnt of whole activity</p> <p>1.6. disseminated and put on the internet</p> | <p>1.6 Financing necessary for meetings, workshops, network consultants, field work hard- and software</p> |
| <p>1.7 Advice in developing and implementing pilot studies (this is to be considered as a cut across all tasks, and not a separate task)</p> <p>1.7.1 Collect, analyse and review existing pilot studies</p> <p>1.7.2 Develop recommendations on how to implement pilot studies</p> <p>1.7.3 Integrate results of existing studies on benchmarks and indicators, traditional knowledge, early warning systems</p> <p>1.7.4 Advise in integrating the implementation of land and water management systems for natural resource management</p> | <p>1.7 is a cut crossing issue and not a separate set of activities</p> | |

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| <p>1.8 Short-term early warning systems (Coordinator: Castillo; Members: Mouat, Takeuchi, Folornuso, Vermes ...) (Tasks 16, 22, 23)</p> <p>1.8.1 Comply available short term Early Warning Systems (e. g. FEWS or AGRYMET: types, cost, effectiveness, partnerships in data sharing, synergies with other conventions, etc.) and practical application of them</p> <p>1.8.2 Evaluate regional early warning systems in the context of a global warning system</p> <p>1.8.3 Recommend the use of short term early warning systems where they do not exist</p> <p>1.9 Long-term early warning systems (Coordinator: Castillo; Members: Mouat, Takeuchi...)</p> <p>1.9.1 Develop multi scale and interdisciplinary methodology for LTEWS</p> <p>1.9.1.1 Identify needs to incorporate stakeholder involvement and traditional knowledge for issues in the methodology</p> <p>1.9.1.2 Incorporate existing databases especially including land vulnerability, climate history and change etc.</p> <p>1.9.2 Assess capabilities and use of LTEWS by evaluating impacts on societal values</p> <p>1.9.3 Develop proposals for implementation of long term activities</p> <p>1.9.4 Develop synergies with other LTEWS especially with climate change</p> <p>1.10 Assist enhancing synergies and preventing of duplication of efforts in UN conventions (Coordinator: Ozden; Members: Mouat, Debicki, Sciortino, Seely...) (Task 28)</p> <p>1.10.1 Review ICCD/COP(3)/9 and make appropriate recommendations on the implementation for adaptation (2003)</p> <p>1.10.2 Review conventions for appropriate synergies (2005)</p> <p>1.10.3 Conduct interviews with representatives of major conventions (2003)</p> <p>1.10.4 Develop mechanisms for exchange of information with other conventions (e.g. via DB and MDB for management systems) (2006)</p> <p>1.10.5 Promote measures for carbon sequestration (2006)</p> <p>1.10.5.1 Incorporate the aspect of combating desertification within in the Kyoto Protocol “flexible mechanism”</p> <p>1.10.5.2 Increase accessibility for financial instruments</p> <p>1.10.6 Evaluate and if appropriate recommend use of Integrated Soil and Biological Management (ISBM) of Convention on Biodiversity for UNCCD assessment (2005)</p> <p>1.11 Water use efficiencies and water resource utilization in the context of desertification and land degradation (Coordinator: Badraoui; Members: Bagouri, Ornas, Ahmadi)</p> <p>1.11.1 Compile information on water use, crop resistance to salt, irrigation, etc</p> <p>1.11.2 Raise awareness to the problem of accessibility to water resources (connected to Task 1.5)</p> | <p>1.8.1 Results by October 2003: Critical review will focus on spatial and time scales, data used (indicators/sources of information); methodology (GIS/models); interrelationship between scientists, decision makers and stakeholders in implementation of EWS and in the dissemination of results, and economic costs.</p> <p>1.8.2 By October 2004: Survey (inventory) of site networks as sources of information to EWS</p> <p>1.8.3 By November 2005: a) Recommendations on guidelines to define terms of reference to designing EWS at different spatial/temporal established; b) Guidelines for monitoring sites network to obtain data for EWS and criteria to establish new monitoring sites established</p> <p>1.10 Prepare an interim report for COP 6 through CST</p> <p>1.10.2 until 2005</p> <p>1.10.3 until 2003</p> <p>1.10.4 until 2006</p> <p>1.10.5 until 2006</p> <p>1.10.6 until 2005</p> <p>1.11 Report by June 2003</p> | <p>1.10.3 Funds needed for interviews (travel costs)</p> <p>1.11 Will need resource person for each region</p> |
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| <p>2. <u>State of knowledge within conservation and rehabilitation (Group 2)</u> <u>(Coordinator: Singh; Members: Ornas, Nascimento, Saadou, Badraoui, Sokolovska, Wang)</u></p> <p>2.1. Identify and compile success stories (Task 1) 2.2. Analyse and synthesis compiled information (focus on success stories) (Task 1) 2.3. Identify and analyse ongoing networks (Task 4) 2.4. Screen information with respect to economic viability of land conservation, land tenure as a factor of land degradation, environmental security, etc.</p> <p>3. <u>State of knowledge within poverty eradication and sustainable development (Group 3) (Coordinator: Bagouri; Members: Febles, Ornas (particularly interested in 3.4), Leon, Nascimento, Saadou, Singh...)</u></p> <p>3.1. Compile relevant research work on applied synthesis and network (Tasks 2-4) 3.2. Screen existing research based on key issues (economic relations, land tenure, local and regional and global levels) (Tasks 19 and 5) 3.3. Establish baselines as common reference for monitoring on a) assessment of present state of poverty; b) indicators of present state of desertification (Tasks 11, 12, 13) 3.4. Systemize existing research with reference to stakeholders and decision-makers and the interrelation with land use and asymmetric relations between stakeholders – impact on life quality 3.5. Develop an inventory of desertification challenges identifying present challenges</p> | <p>2.1 Report March 2003 2.2. Report June 2003; ten stories compiled and analysed 2.3 Report by June 2003 identifying number of networks 2.4 Report June 2003</p> <p>3.1 One report with four chapters by June 2003 3.4. Report December 2003 (?) 3.5 Report including the aspects of: present state of land use; state of water use; use of biological material to combat salinity and drought stress; land use and environmental problems; participatory land use planning and sustainable systems; poverty spatial distribution (levels, hot spots)</p> | <p>2 For all activities of “2”: Financial support by UNCCD secretariat to facilitate the acquisition of information necessary</p> <p>3.1 This will be the basis for the second year activities for impact and mitigation</p> |
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Annex III

LIST OF PARTICIPANTS

[English, French and Spanish only]

Selected members for Africa

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Moderators

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