PROMOTING BEST PRACTICES FOR CONSERVATION AND SUSTAINABLE USE OF BIODIVERSITY OF GLOBAL SIGNIFICANCE IN ARID AND SEMI–ARID ZONES

Modified Proposal Narrative

I. Project Linkage to National Priorities, Action Plans and Programmes:
Ministers of Science and Technology and Higher Education and Heads of Science Academies and Research Councils in Developing Countries have established, in 1998, the Third World Network of Scientific Organizations (TWNSO) as a non-governmental organization to promote science-based sustainable economic development in the South. At present TWNSO has 147 Members, including 36 Ministries of Science & Technology and Higher Education, 41 science academies, 43 research councils and 27 other organizations from 73 countries in the South. In addition, TWNSO National Committees have been established in 23 countries in the South. TWNSO's Executive Board in fact comprises of the Minister of Science & Technology of Brazil, Federal Minister of Science & Technology of Nigeria, Minister of Higher Education of Syria, Chairman of the State Science and Technology Commission (SSTC) of China, Director General of the National Council of Science and Technology (CONACYT) of Mexico and the Executive Director of the Third World Academy of Sciences (TWAS).

Its Members are Minister for Science, Technology and Higher Education of Tanzania, Minister of Scientific Research and Technology of Senegal, Secretary of State for Scientific Research and Technology of Tunisia, Minister of Culture and Higher Education of the Islamic Republic of Iran, President of the Indian National Science Academy, Secretary of Science & Technology of Argentina, Director of the Colombian Fund for Scientific Research and Special Projects (COLCIENCIAS). In May 1995 in Trieste, Italy when the Consultative Meeting on "Strategies for Scientific and Technological Research in Biodiversity and Land Degradation in the South," attended by, among others, representatives of a number of centres of excellence in the South in the fields of biodiversity and land degradation and representatives of the CBD and the UN CCD Secretariats, resulted in recommendations for addressing the needs and priorities of the South in biological diversity and land degradation, TWNSO with its Board and membership of national governments mentioned above supported these recommendations confirming their national importance.

Among the priorities listed, was the recommendation for increased cooperation and coordination of activities between Institutions of Excellence in both biodiversity and land degradation in order to foster activities that achieve the greatest possible impact in those areas of global concern. This project responds to this priority area by bringing together these Institutions of Excellence and other relevant partners to analyze their experiences and identify best practices that would promote the conservation and sustainable use of biodiversity of global significance in arid and semi-arid zones. In addition, the African Ministerial Conference on the Environment, at its seventh session held 27-28 November 1997, in Dakar, noted their recognition for support to institutions and programmes. By

bringing together the Institutions of Excellence in this project, best practices and lessons learned will be shared between these institutions and will result in increased capacity to deal with the issue under consideration.

II. Project Rationale and Objectives:

A. Identifying and disseminating best practices for conserving and sustainably using biodiversity of global significance in arid and semi-arid ecosystems;
B. Increasing collaboration between centres of excellence in biodiversity of drylands by facilitating exchange of information, research cooperation and co-ordination of lessons and best practices;
C. Assisting the efforts of local populations in drylands regions to manage and sustainably utilize the fragile ecosystems.

Indicators:

A. Wide dissemination of best practices in conservation and sustainable utilization of natural resources in drylands biodiversity resources;
B. Increased communication between centres of excellence working in biodiversity areas of common concern;
C. Effective community-based management measures of fragile ecosystems implemented by local populations.

III. Project Outcomes:

A. Increased availability and access to information on best practices for the conservation and sustainable use of biodiversity in dryland ecosystems;
B. Increased awareness of local populations and communities world-wide of lessons and best experiences for effective management and sustainable utilization of natural resources in arid and semi-arid regions;
C. Increased awareness of the values of the biodiversity of global significance in arid and semi-arid ecosystems in accordance with the Convention on Biological Diversity;
D. Increased coordination between institutions working towards the conservation and sustainable use of biodiversity of global significance in arid and semi-arid ecosystems, resulting in turn, in more effective programming of scarce financial resources and lesser duplication of activities;
E. Increased partnerships of institutions of excellence in the South working on similar issues in drylands ecosystems, resulting in turn in increased capacity of the institutions.

Indicators:

A. Collection and synthesis of best practices and successful experiences in the conservation of biological resources in dryland ecosystems;
B. Development of datasets of these best practices for wide distribution to the local and international communities;
C. Joint action by institutions to improve and develop further their best experiences in biodiversity conservation;

D. Dissemination of best practices and successful experiences in the conservation of biological resources in dryland ecosystems on the World Wide Web, journals, and other relevant media channels. A draft communication strategy is outlined in Annex XII. This strategy will be analysed by the 15 Centres of Excellence working with TWNSO/TWAS with a view towards refining this strategy further and agreeing on the delineation of activities between the relevant participating institutions.

IV. Project activities to achieve outcomes

A. Refine draft communication strategy agreeing on actual activities to be undertaken and the delineation of responsibilities among the participating countries;
B. Preparation by centres of excellence of case studies and best practices in: (i) conservation and; (ii) sustainable use of biodiversity of global significance in arid and semi-arid areas based upon agreed criteria on what constitutes 'global significance'.
C. Convening four regional meetings to share best practices, disseminate information, generate lessons and facilitate effective coordination and cooperation as well as increase awareness of the opportunities provided by the GEF;
D. Convening, in consultation with STAP, of one global meeting in Egypt to: Share regional and national experiences that may have some bearing on issues being addressed by institutions in other regions; identify the best practices, generate lessons learned and ensure the dissemination of this information to a wider audience of practices that can be applied at the national level based on the commonalties; and ensure effective coordination of the regional and national network of pertinent institutions.
E. Increasing coordination and promoting partnerships between institutions by catalyzing the establishment of a network of relevant institutions, working towards the conservation and sustainable use of biodiversity in arid and semi-arid ecosystems at regional and, in particular, national levels, and capable of disseminating the identified lessons learned and best practices.
F. Compilation and analysis of the best practices and the development, publication and wide dissemination of datasets of these practices.

Indicators:

A. Agreements with identified Centres of Excellence to prepare best practices;
B. Agreement between TWNSO, the Centres of Excellence and UNEP on a communication strategy for disseminating best practices with agreement on delineation of responsibilities for executing the strategy;
C. Setting-up appropriate databases to analyze and collate the information received on best practices;
D. Reports, conclusions and follow-up of workshops and conferences;
E. Modalities for how centres of excellence will continue to work together and share experiences developed and agreed;
F. Information on best practices/lessons learned on I) conserving and ii) sustainably using biodiversity of global significance in arid and semi arid ecosystems disseminated through a range of media including the World Wide Web, Journals, magazines, among others.

V. Information on Project Proposer:
TWNSO is a non-governmental organization founded in 1988 to promote science-based economic development of the developing world, and cooperation among nations of the South in areas of science and technology critical to their sustainable development. The Network membership stands at 151 members including 35 Ministries of Science and Technology and Higher Education, 44 Science Academies, 43 Research Councils and 29 other organizations from 73 developing countries. TWNSO has Regional Offices in China, Mexico, Nigeria and Syria and has established National Committees in 23 countries. In collaboration with the Third World Academy of Sciences (TWAS) and the Geneva-based South Centre, TWNSO has compiled biographical data of over 400 world-class research and training centres in the developing world. In 1995, a small GEF grant was utilized to expand the database to cover a wide range of centres with specific expertise in issues related to biodiversity and land degradation, adding an additional 150 institutions from 61 developing countries. TWNSO's network now comprises, among others, those Institutions of Excellence that carry out projects in areas related to biodiversity and land degradation.

VI. Project Description

Project Rationale and Objectives
The GEF Work Programme does not have a large portfolio of projects aimed at conserving and sustainable using biodiversity of global significance in arid and semi-arid ecosystems under threat from land degradation, although there is a high potential for achieving global diversity benefits through appropriately designed activities in arid and semi-arid ecosystems particularly with regard to the conservation of rare and endemic species, diversity of soil microfauna, and the conservation and sustainable use of genetic resources of global significance.

A primary cause of this problem lies in the fact that successful experiences achieving significant global biodiversity benefits have not been publicized widely enough and hence not replicated in other relevant circumstances. In the *Report of the Scientific and Technical Advisory Panel of the Global Environment Facility Expert Workshop on Land Degradation*, STAP noted that the scarcity and unreliability of needed scientific and technical information, particularly relating to potential global benefits, is one of the main constraints that would impact upon potential GEF projects tackling this issue.

Indeed, the *Study of GEF's Overall Performance* concluded that the GEF has not resolved difficulties associated with projects for sustainable use of biodiversity, a major problem being the dearth of published information on successful experiences in such projects. It also noted that the GEF might better focus on, in the biodiversity focal area, projects that can provide models for the entire bilateral and multilateral funding community in terms of type of intervention, rather than a site-specific criterion stating that this is consistent to the GEF's overall operational principle of a diverse portfolio of projects, that "provide

lessons beyond their immediate impact" and "catalyze complementary actions or have a multiplier effect".

The Consultative Meeting on "Strategies for Scientific and Technological Research in Biodiversity and Land Degradation in the South," held in May 1995 in Trieste, Italy, recommended the urgent need for identifying lessons learned and best practices for promoting conservation and sustainable use of biodiversity in arid and semi-arid ecosystems. The objective of this project is therefore to identify lessons learnt and disseminate best practices for conserving and sustainable using biodiversity of global significance in arid and semi-arid ecosystems under threat from land degradation, the long-term objective being to strengthen a network of centres of excellence in support of the implementation of OP#1. This objective responds directly to those in the GEF Operational Strategy and its Programmes as it will focus on the lessons learned and best practices associated with activities that aim to protect systems of conservation areas in arid and semi-arid ecosystems at threat from activities leading to land degradation and its root causes. As the GEF portfolio does not have a large portfolio of projects from which such lessons learned can be generated, the project will include identifying lessons learned and best practices from non-GEF funded activities as well as GEF funded activities. It will also focus on lessons learned and best practices associated with sustainable use management of resources in arid and semi-arid ecosystems that combine production, socio-economic and biodiversity goals.

The project also responds to the priorities recommended for GEF action by the Conferences of the Parties (COPs) of the Convention on Biological Diversity (CBD) in particular responding to Recommendations II/7 and III/9 on, in particular, Articles 8c, 8d, 8f and 8j.

In accordance with the constraints affecting GEF projects identified by STAP at its September 1996 workshop, the project will address the lack of adequate institutional coordination, particularly at the regional and transboundary levels, which has been noted as a major constraint impacting potential GEF projects, as the relevant institutions are "working separately and not disseminating information for mutual benefit." The project will therefore apply a regionally based approach in order to ensure that it provides an adequate forum for enabling exchanges of experiences between countries sharing similar problems in the region, and, in particular, for ensuring that experiences in tackling the more complex transboundary problems are identified and the best practices promoted. This will, in turn, ensure that institutional coordination is promoted to the extent necessary to ensure that a multiplier effect replicating best practices is achieved.

The GEF Implementing Agencies have recently increased efforts to promote the conservation and sustainable use of biodiversity in arid and semi-arid zones and UNEP is a major partner in these initiatives. In response to the gaps identified in the planning of this portfolio and building on UNEP's experience in this area, this project will involve the other GEF partners in order to help ensure that further activities undertaken in this arena do indeed have the greatest impact on the earth's biodiversity. It will therefore take into

account the experiences of the GEF Implementing Agencies, governments, local communities, NGOs and in particular, the pertinent Institutions of Excellence, in the development and implementation of their projects, including among others, the "Transnational Green Belt Project" in North Africa, the "Combustible Energy Utilization Project" in Senegal, and the "Community-based Rangeland rehabilitation for Carbon Sequestration and Biodiversity" projects in Benin and Sudan, the "Transfrontier Conservation Areas Pilot and Institutional Strengthening Project" and "Management of Indigenous Vegetation for the Rehabilitation of Degraded Rangelands in the Arid Zone of Africa (Botswana, Kenya, Mali)".

Current Situation

This project has been developed in response to the urgent need to identify and widely disseminate best practices in conservation and sustainable utilization of biological resources in arid and semi-arid ecosystems in the developing world. Currently these successful experiences have not received wide publicity and are hence not replicated in similar situations. The project will utilize already existing research groups and expertise within a network of centres of excellence to first identify the best conservation practices including those of local communities and build upon these to achieve its goals through information dissemination and exchange. The centres of excellence participating in the network have expertise in research areas ranging from meteorology, desertification control, water catchment management, arid zone agriculture, geology and natural resource management to cartography, sociology and biodiversity inventories. The institutions have extensive research and training programmes which have benefits at the national and often also at the regional scale, but the dissemination of lessons learned and best practices seldom go beyond that.

Project Outcomes:

The project activities will yield the following major outcomes:

A. Increased availability and access to information on best practices for the conservation and sustainable use of biodiversity of global significance in arid and semi-arid ecosystems;
B. Increased coordination between institutions working towards the conservation and sustainable use of biodiversity of global significance in arid and semi-arid ecosystems, resulting in turn, in more effective programming of scarce financial resources and lesser duplication of activities;
C. Promoting partnerships between institutions by catalyzing the establishment of a network of relevant institutions, working towards the conservation and sustainable use of biodiversity in arid and semi-arid ecosystems at regional and national levels, and increasing capability of disseminating the identified lessons learned and best practices;
D. Increased awareness of the local, regional and global values of biodiversity in arid and semi-arid zones in accordance with the priorities outlined in the Convention on Biological Diversity;
E. Increased impact of future GEF activities on the conservation and sustainable use of biodiversity of global significance in arid and semi-arid ecosystems.

Activities and Financial Inputs Needed to Enable Changes

A. Identifying case studies and best practices in activities designed to: (i) conserve; and (ii) sustainably use biodiversity of global significance in arid and semi-arid areas through a combination of production, socio-economic (food security) and biodiversity goals, based upon agreed criteria on what constitutes "global significance". The emphasis will be on those activities that result in better management/protection of rare and endemic species and their habitats, soil microfauna and microflora, and other important genetic resources. Case studies prepared will take into consideration, among others, the role of traditional knowledge and stakeholder participation. Case studies will be prepared in collaboration with centres of excellence in countries implementing the project.
B. Convening, in consultation with STAP, of 4 regional meetings in Africa (Senegal), Latin America (Mexico), North Africa and the Middle East (Egypt) and Asia (Pakistan) with the aim of: (i)analyzing the experiences of case studies; (ii)generating lessons learned and identifying best practices that are applicable to each region (and, particularly taking into account the role of traditional knowledge in these best practices, in accordance with the recommendations of the September 1996 STAP workshop); (iii) increasing awareness of the Convention on Biological Diversity and its objectives and to increase awareness on identifying biodiversity of global significance in arid and semi-arid areas under threat from land degradation.
C. Convening in consultation with STAP, of one global meeting in Egypt to: (i)share regional and national experiences that may have some bearing on issues being addressed by institutions in other regions; (ii)identify the best practices, generate lessons learned and ensure the dissemination of this information to a wider audience of practices that can be applied at the national level based on the commonalties; and, (iii)ensure effective coordination of the regional and national network of pertinent institutions.
D. Increasing coordination and promoting partnerships between institutions by catalyzing the establishment of a network of relevant institutions, working towards the conservation and sustainable use of biodiversity in arid and semi-arid ecosystems at regional and, in particular, national levels, and capable of disseminating the identified lessons learned and best practices;
E. Compilation and analysis of the best practices and the development, publication and wide dissemination of datasets of these practices.

Sustainability Analysis and Risk Assessment

The project is strongly supported by a network of centres of excellence in 14 countries. These centres will provide the expertise and the technical support to execute the project. To ensure long-term sustainability the project will aim at establishing permanent links between cooperating institutions working in similar conservation issues for the purpose of sharing and developing further their best practices. The experiences collected will be made available to national governments to facilitate further dissemination and replication by the local communities, and a close cooperation with national policymaking entities will be established to ensure maximum long-term impact of the project outcomes.

Stakeholder Involvement and Social Assessment

The Third World Network of Scientific Organizations (TWNSO) will be responsible for identifying through its network the most relevant bodies to participate in each workshop. Participants will comprise of representatives from the Institutions of Excellence, Ministries of Science and Technology and Higher Education, Science Academies, Research Councils and other relevant bodies. To ensure the widest possible stakeholder participation, participants will be expected to network with their relevant constituencies, including local communities and farmers within their constituencies, to ensure that all relevant issues and activities are brought to the forefront. STAP will be involved to provide additional guidance on the conduction and application of the case studies in line with GEF and CBD objectives and priorities.

Baseline Actions

The institutions of excellence participating in this project have achieved a good level of scientific excellence and are internationally renowned for their work in biodiversity and dryland ecosystems (see Annex 1 for the full list and description of activities). Over the last decade, they have been involved in among other activities undertaking efforts to conserve and sustainably manage natural resources in arid and semi-arid regions. In addition, presently on-going is an ambitious project aimed at upgrading a number of competent scientific institutions in the South to international centres of excellence so as to enable them to provide advanced training and research opportunities to young scientists from the South. Twelve nodes of the Network have been established at already existing and highly competent institutions in Bolivia, Brazil, China, Colombia, Ghana, Jamaica, Jordan, Nigeria, Pakistan, Syria, Tanzania, and Turkey. In addition, profiles of Science Ministries, Academies and Research Councils in the South are being produced so that identifying institutions working on similar issues can be found more easily. Also, to facilitate ease of information sharing, compilation and publication of information in the form of a directory with detailed information about its Members, including their programmes, functions and budget is being produced. This will provide useful information to many organizations concerned with the status and prospects of science and technology in the South. But all institutions have a limited budget and rarely have the means and capacity to disseminate their results beyond the national and regional level, and the synthesis of best practices and lessons learned is only at a preliminary stage. The funding for biodiversity conservation related activities are mainly directed to local, national and sometimes regional activities.

Incremental Actions

A wealth of information therefore exists among these collaborating institutions on a wide variety of best practices and lessons learned for conserving and sustainably using arid and semi-arid zone biodiversity of global significance. Best practices for biodiversity management in relation to pastoralism, land tenure, drought patterns, wild relatives to crop species, invasive and alien species, water catchment area management etc will therefore be compiled and compared, and recommendation packages for dissemination to all stakeholder levels (from farmers to Government decision makers) will be developed.

Publications and training manuals using experience gained and lessons learned will be produced and made widely available, utilising the extensive contacts of the participants in the network. As the capacity and means to undertake these activities do not exist within the single institutions, the activities in project are therefore incremental actions, which would not otherwise be undertaken under the current scenario. The information that exists on best practices and lessons learned would remain within the institutions in which it has been generated and not shared between others working on similar issues for the mutual benefit of the global environment.

The present proposal therefore adds to the baseline scenario presented above by enabling the countries to accelerate and strengthen implementation of the CBD by sharing with one another the wealth of information that exists in a variety of fields related to dryland biodiversity conservation so that past mistakes are not duplicated and best practices are replicated. The expertise of the participating institutions in various areas will be utilised for the benefit of the other institutions and countries. Without this proposal, the participating countries are likely to continue not benefiting adequately from each other's experiences. It is envisaged that the activities in this project relating to collation of data and knowledge, regional and international workshops for sharing experiences and the eventual dissemination of lessons learned are incremental actions that will result in a leap towards additional global benefits.

The incremental costs provided by the project will enable these institutions to provide detailed reports and studies about their most successful experiences in conservation issues as well as those generated in their country by other institutions and local populations. By compiling, collating and widely disseminating these experiences the project will complement and strengthen the work of the institutions as well as benefit the global efforts.

In short, the networking will:

A. facilitate the exchange of information and expertise and sharing of local and traditional knowledge through the creation of a link to the global information network;
B. undertake joint research and training programmes which integrates biodiversity and land degradation and the interactions of these;
C. provide short and medium-term training of scientists, technicians, decision-makers and national plan implementers;
D. support joint research activities on the scale of ecological zones of bioclimatic regions and upgrading the facilities where necessary;
E. facilitate the inventory of biota and the identification of unique occurences and endangered species, by providing standardised methodologies for data collection and analysis.