

## I. EXECUTIVE SUMMARY

### 1. Identifiers

<b>PROJECT NUMBER</b>	<i>[Implementing Agency Project Number not yet assigned]</i>
<b>PROJECT NAME</b>	<b>Land Degradation Assessment in Drylands (LADA)</b>
<b>DURATION</b>	4 years from 1 January 2006
<b>IMPLEMENTING AGENCY</b>	United Nations Environment Programme (UNEP)
<b>EXECUTING AGENCY</b>	Food and Agriculture Organization of the United Nations (FAO)

#### **NATIONAL PARTNER AGENCIES:**

Argentina – for South America region  
China – for East Asia region  
Cuba – for Central America and the Caribbean  
Senegal – for Francophone West Africa  
South Africa – for Southern, Central and Eastern Africa region  
Tunisia – for Near East, North Africa and Mediterranean region

<b>REQUESTING COUNTRIES</b>	<b>GLOBAL</b>
<b>ELIGIBILITY</b>	<b>N/A</b>

<b>GEF FOCAL AREA</b>	<b>Land Degradation cross-cutting to Biodiversity, International Waters and Climate Change</b>
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<b>GEF PROGRAMMING FRAMEWORK</b>	Operational Program (OP)1: <i>Arid and Semi-arid Zone Ecosystems</i> ; OP12: <i>Integrated Ecosystem Management</i> and; OP15: <i>Sustainable Land Management</i>
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### 2. Summary

LADA will develop tools and methods to assess and quantify the nature, extent, severity and impacts of land degradation on dryland ecosystems, watersheds and river basins, carbon storage and biological diversity at a range of spatial and temporal scales. It will also build the national, regional and international capacity to analyse, design, plan and implement interventions to mitigate land degradation and establish sustainable land use and management practices. These objectives will contribute to the **Environmental Goal** of GEF's Operational Program 1, namely the conservation and sustainable use of the biological resources of arid and semi-arid areas; OP12 – to catalyse widespread adoption of comprehensive ecosystem management interventions – and; to OP15 - mitigating the causes and negative impacts of land degradation on the structure and functional integrity of ecosystems through sustainable land management practices. LADA is consistent with the Strategic Priority on Targeted Capacity-Building in Sustainable Land Management (SLM-1). A contribution will be made to the **Developmental Goals** of UNCCD and UN multi-lateral agencies to improve people's livelihoods and economic well being.

To achieve these objectives, LADA will develop standardised and improved methods for dryland degradation assessment, with guidelines for their implementation in a range of scales. Using these methods, it will assess the regional and global baseline condition of land degradation with the view to highlighting the areas at greatest risk. These assessments will be supplemented by detailed local assessments that will focus on root cause analysis of land degradation and on local (traditional and adapted) technologies for the mitigation of land degradation. Areas where land degradation is well controlled will be included in the analysis. 'Best practice' guidelines will be developed and the results widely disseminated in various media. The project is intended to make

an innovative generic contribution to methodologies and monitoring systems for land degradation, supplemented by empirically-derived lessons from the six main partner countries involved in the project – Argentina, China, Cuba, Senegal, South Africa and Tunisia – up-scaled to countries within their regional remit.

### **3. Costs And Financing (US\$ million)**

Breakdown costs according to [UNEP](#) and [FAO ORACLE](#) codes are included in [Annexes 1A and 1B](#).

<b>Project Component</b>	<b>Funding Source</b>	<b>Costs (in US\$ million)</b>
<b>GEF</b>	Project	7.000
	PDF-A	0.025
	PDF-B	0.700
<b>Sub-total GEF</b>		<b>7.725</b>
<b>Co-financing</b>		
<b>PDF-A and PDF-B</b>	FAO	0.675
	UNEP	0.100
	GM	0.100
<b>Project</b>	FAO (in kind and cash)	2.000
	UNEP (in kind and cash)	1.750
	UNU (in kind and in cash)	0.140
	GLCN	0.200
	UNCCD (in kind)	
	ISRIC	0.348
	WOCAT (in kind)	0.088
	Participating countries (in cash and kind):	
	Argentina	0.862
	China	1.100
Cuba	0.250	
Senegal	0.380	
South Africa	0.400	
Tunisia	0.462	
	<b>Total participating countries</b>	<b>3.454</b>
<b>Sub-total Co-financing</b>		<b>7.980</b>
<b>TOTAL PROJECT COST</b>		<b>14.980</b>
<b>TOTAL PROJECT COST INCLUDING PDF-A/B</b>		<b>16.580</b>

### **4. Associated Financing (US\$ million)**

(See [Annex A](#) for listings of relevant projects)

<b>International</b>	US\$ 95.6 million <sup>1</sup>
<b>National</b>	US\$192.2 million

<sup>1</sup> Not including satellite imagery and remote sensing projects, estimated at US\$700 million

## **5. Operational Focal Point Endorsement**

Not applicable

## **6. Implementing Agency Contact**

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## II. ACRONYMS AND ABBREVIATIONS

ACSAD	Arab Center for the Studies of Arid Zones and Dry Areas
ADB	Asian Development Bank
Africover	A project aimed to establish a digital geo-referenced database on land cover and a geographic referential for the whole of Africa
AEIN	Africa Environmental Information Network
ASSOD	Assessment of Soil Degradation in South and Southeast Asia
CAS	Chinese Academy of Sciences
CGIAR	Consultative Group on International Agricultural Research
COP	Conference of Parties (to the Global Conventions such as UNCCD)
CSD	Commission on Sustainable Development
CST	Committee for Science and Technology (of the UNCCD)
DDC	Drylands Development Centre of UNDP
DEV/ODG	School of Development Studies, University of East Anglia, UK
Diversitas	International Programme for Biodiversity Science (of ICSU and UNESCO)
DPSIR	Driving Forces-Pressures-States-Impacts-Responses ( <i>LADA</i> Conceptual Framework)
EA	Executing Agency (FAO)
EC	European Community
ECLAC	Economic Commission for Latin America and the Caribbean
EDC	EROS Data Center
EPIC	Erosion-Productivity Impact Calculator
EROS	Earth Resources Observation System (Data Center, US Geological Survey)
ESA	European Space Agency
ESB	European Soil Bureau (of the European Community)
ESRC	Economic and Social Research Council (of the UK)
EUROSEM	European Soil Erosion Model
FAO	Food and Agriculture Organization of the United Nations
FCCC	Framework Convention on Climate Change
GEF	Global Environment Facility
GFRA	Global Forest Resources Assessment
GFSM	Global Fibre Supply Model
GIS	Geographical Information System
GIWA	Global International Waters Assessment
GLASOD	Global Assessment of Human-induced Soil Degradation
GLCN	Global Land Cover Network
GM	Global Mechanism (of UNCCD)
GPA	Global Programme of Action (for Protection of Marine Environment from Land-based Activities)
GTOS	Global Terrestrial Observing System
IA	Implementing Agency (UNEP)
IAASTD	International Assessment of Agricultural Science, Technology and Development
ICARDA	International Centre for Agricultural Research in Dryland Areas
ICRISAT	International Centre for Research in the Semi-Arid Tropics
ICSU	International Council of Scientific Unions
IFAD	International Fund for Agricultural Development
IKONOS	Satellite generating images with very high spatial resolution
ILEIA	Centre for Information on Low External Input and Sustainable Agriculture
IPCC	Intergovernmental Panel on Climate Change
IRSSS	International Space Station Images
ISRIC	International Soil Reference and Information Centre
JPOI	Johannesburg Plan of Implementation
KFA 1000	Camera that provides the acquisition of coloured space photo images from the mission of "Resurs F1M" Russian Spacecraft
<i>LADA</i>	Land Degradation Assessment in Drylands
LCCS	Land Cover Classification System
LISS	Medium resolution Linear Imaging Self Scanner from the IRS Indian satellite series
MA	Millennium (Ecosystem) Assessment
MDGs	Millennium Development Goals

MODIS	Moderate Resolution Imaging Spectroradiometer
NAP	National Action Programme
NARS	National agricultural research services
NEPAD	The New Partnership for Africa's Development
NGO	Non-governmental organization
NOAA	National Oceanic and Atmospheric Administration of the United States of America
NRCS	Natural Resources Conservation Service (of the USDA)
NUTMON	Nutrient Monitoring project
OECD	Organization for Economic Cooperation and Development
OP	Operational Program (of the GEF)
OSS	Observatoire du Sahara et du Sahel
PDF	Project development funding phase, viz PDF-A, PDF-B (for GEF projects)
PRC-GEF	People's Republic of China and Global Environment Facility (Partnership on Land Degradation)
RAP	Regional Action Programme
RS	Remote Sensing
SARD	Sustainable Agriculture and Rural Development
SLEMSA	Soil Loss Estimation Model for Southern Africa
SLM-IM	Sustainable Land Management – Integrated Model
SOTER	Soil and Terrain Database
SOVEUR	Soil Vulnerability Assessment in Central and Eastern Europe
SPOT	Satellite Probatoire d'Observation Territoire
SRAP	Sub-Regional Action Programme
TPN-1	Thematic Programme Network of the UNCCD (Asia)
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEP	United Nations Environment Programme
USDA	United States Department of Agriculture
USGS	United States Geological Survey
USLE	Universal Soil Loss Equation
WCMC	World Conservation Monitoring Centre
WEHAB	Water, Energy, Health, Agriculture and Biodiversity
WEPP	Water Erosion Prediction (model)
WOCAT	World Overview of Conservation Approaches and Technologies
WSSD	World Summit on Sustainable Development

### III. BACKGROUND AND CONTEXT

#### 3.1 GLOBAL SIGNIFICANCE OF LAND DEGRADATION

1. Land degradation is defined as “The reduction in the capacity of the land to perform ecosystem functions and services (including those of agro-ecosystems and urban systems) that support society and development (examples of land services are contributions to the water cycle (green water), the energy cycle (food and fibre), atmospheric composition (emissions) and the nutrient/waste cycle)”. Land degradation has been recognised as a global problem associated with desertification and loss of biological diversity in arid, semi-arid and dry sub-humid zones (commonly called ‘drylands’).<sup>2</sup> As recognized by the GEF, “arid and semi-arid lands have suffered some of the worst forms of degradation, due to their fragility and increased pressure from growing and partially sedentary populations.”<sup>3</sup> Land degradation probably affects about 2.6 billion people in more than a hundred countries and over 33 percent of the Earth’s land surface<sup>4</sup>. Around 73 percent of rangelands in drylands are currently being degraded, together with 47 percent of marginal rainfed croplands and a significant percentage of irrigated croplands<sup>5</sup>.

2. International responses to land degradation have included the United Nations Conference on Desertification (UNCOD) in 1977 and the United Nations Conference on Environment and Development (UNCED) in 1992. The latter led to the adoption of the Convention to Combat Desertification (UNCCD) in 1994. Land degradation was reaffirmed at the World Summit on Sustainable Development (WSSD) in September 2002 as one of the major global environmental and sustainable development challenges of the 21<sup>st</sup> Century. The Summit called on the Global Environmental Facility (GEF) to designate land degradation as a new focal area to support the implementation of the UNCCD<sup>6</sup>. This proposal was embodied in the Beijing Declaration of the Second GEF Assembly<sup>7</sup>. It is also relevant that the GEF launched OP15 on Sustainable Land Management in July 2003 to make operational the designation of land degradation as a focal area.

3. Yet land degradation (and its associated term ‘desertification’) is a complex and contested topic. Different institutional actors differ in their understanding of the causes, degree, distribution and effects of land degradation. While long associated with drylands which cover some 47 percent of the globe’s surface<sup>8</sup>, land degradation is considered by many observers to be highly variable, discontinuous, arising from different causes and affecting people differentially

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<sup>2</sup> The inter-linkages between land degradation and biodiversity are well recognised. See GEF Report of the STAP Expert Group Workshop on Land Degradation, Bologna, Italy, 14-16 June 1999.

[http://www.gefweb.org/COUNCIL/GEF\\_C14/gef\\_c14\\_inf15.doc](http://www.gefweb.org/COUNCIL/GEF_C14/gef_c14_inf15.doc)

<sup>3</sup> GEF Operational Program 1: *Arid and Semi-Arid Zone Ecosystems*, para 1.23, page 1-10.

<sup>4</sup> Adams, C.R. and H. Eswaran, 2000. Global land resources in the context of food and environmental security. pp. 35-50 in “*Advances in Land Resources Management for the 20<sup>th</sup> Century*”. 655 pp. eds. S.P. Gawande et al. New Delhi: Soil Conservation Society of India

<sup>5</sup> Secretary General’s Report on Land Chapter of Agenda 21 to Commission on Sustainable Development (CSD8, UN, New York 2000), UNCED Agenda 21, Rio de Janeiro, 1992 and UNCCD, Paris, 1994.

<sup>6</sup> World Summit on Sustainable Development (WSSD) 2002. Plan of Implementation.

<sup>7</sup> Expanded Mandate of the GEF, 18 October 2002, para.2:

[http://www.gefweb.org/Whats\\_New/Beijing\\_Declaration\\_-\\_English.pdf](http://www.gefweb.org/Whats_New/Beijing_Declaration_-_English.pdf)

<sup>8</sup> UNEP 1997. *World Atlas of Desertification*. Editorial commentary by N. Middleton and D.S.G. Thomas. London: Edward Arnold



according to their economic, social and political circumstances.<sup>9</sup> Estimates as to the extent and impact of land degradation are conflicting.<sup>10</sup> Land degradation is presumed to result in a reduction in economic potential of the land to support people, while at the same time affecting negatively a number of important global environmental attributes such as carbon storage, biodiversity and off-site pollution. Permanent loss of service provision by the land and irreversible biophysical change are implied.<sup>11</sup> There are also major implications for all global environmental conventions and most development goals.<sup>12</sup> The potential synergies between land degradation and its impacts on the one hand and other global environmental and developmental issues are many and complex<sup>13</sup> and inadequately understood. At the core of many debates are the questions, “are the data to be believed?”<sup>14</sup> “do humans cause deserts?”<sup>15</sup> and “how can the degradation be controlled?”<sup>16</sup> Answers range from the modestly optimistic to the wildly pessimistic, according to viewpoints and stakeholder perceptions.

**Box 1: Extent and Immediate Causes of Land Degradation**

Degradation extent (million ha)	Immediate Cause
680	Overgrazing – about 20 percent of world’s pastures and rangeland have been damaged, especially recently in Africa and Asia.
580	Deforestation – large scale logging; clearance for farm and urban use. More than 220 m ha of tropical forests were destroyed 1975-90.
550	Agricultural damage – water erosion causes soil losses estimated at 25 000 million tonnes annually. Soil salinization and waterlogging affect about 40 million ha of land globally
137	Fuelwood – about 1730 million m3 of fuelwood are harvested annually from forests and plantations
19.5	Industry and urbanization – urban growth, road construction, mining and industry. Mainly a loss of agricultural land.

Sources: FAO 1996. *Our Land, Our Future*. Rome: UN Food and Agriculture Organization; UNEP 2002. *Global Environment Outlook 3*. Nairobi: United Nations Environmental Programme

<sup>9</sup> Mortimore, M. 1998. *Roots in the African Dust: Sustaining the Sub-Saharan Drylands*. Cambridge: Cambridge Univ. Press

<sup>10</sup> Some sources routinely report that up to 70 percent of all drylands are ‘desertified’; others suggest that the figure is no more than 17 percent - see *Global Change Newsletter* No 54, June 2003: <http://www.igbp.kva.se>

<sup>11</sup> Oldeman, L.R., Hakkeling, R.T.A. & Sombroek, W.G. 1990. *World Map of the Status of Human Induced Soil Degradation*. Wageningen: International Soil Reference and Information Centre.

<sup>12</sup> For example, the Millennium Development Goals: Especially No.1 the eradication of extreme poverty and hunger, and No.7 environmental sustainability. See, URL: <http://www.developmentgoals.org>

<sup>13</sup> The World Bank Group 2003. *Convention to Combat Desertification and Other Conventions*. URL: <http://lnweb18.worldbank.org/ESSD/ardext.nsf/17ByDocName/TowardssynergywithotherConventions>

<sup>14</sup> “Experts need to discriminate more carefully between a naturally bad state, a temporary bad state and a degraded state of the land.” – see Mazzucato, V. & Niemeijer, D. 2001. *Overestimating land degradation, underestimating farmers in the Sahel*. Drylands Issues Paper. London: International Institute for Environment and Development, cited by UNEP 2002. *Global Environment Outlook 3*. London: Earthscan.

<sup>15</sup> J.F. Reynolds and D.M. Stafford Smith 2002. *Global Desertification: Do humans cause deserts?* Dahlem Workshop Report 88. Dahlem University Press, Berlin.

<sup>16</sup> Joint UNEP/IFAD Programme on *Success Stories of Land Degradation/Desertification Control*. URL: <http://www.unep.org/unep/envpolimp/techcoop/1.htm>

4. The *root causes* (and *consequences*) of land degradation and desertification are usually ascribed to poverty and food insecurity combined with harsh climatic events such as drought, leading to excessive pressures on often fragile ecosystems, the natural resource base, and the adoption of resource depleting survival strategies by the poor. Its *immediate causes* are inappropriate land use, degradation of soil, water and vegetation cover and loss of soil and vegetative biological diversity, affecting ecosystem structure and functions – see Box 1.

5. Intensive forms of land use, including over-grazing, excessive irrigation, and intensive tillage and cropping have also been identified as causes. The *ultimate causes* or primary drivers of land degradation are policy and institutional distortions or failures in the public or government, private or market, civil or community sectors, as well as civil strife, conflict and corruption. The nature of the interrelationships and thresholds between these technical, institutional and policy factors at different levels and scales and in their temporal dimensions has not been properly addressed. Because of the complex nature of the topic itself, there tends to be a policy paralysis in how to control degradation – a situation exacerbated by uncertainty in the data and the lack of any authoritative and widely accepted assessment of the extent and causes of land degradation.

6. At global and eco-regional levels, land degradation results in the degradation and loss of unique ecosystems and their endemic components of biodiversity, and the breakdown of traditional livelihood systems and mass migrations due to recurrent droughts. It especially threatens culturally unique agro-pastoral and silvo-pastoral farming systems, and nomadic and transhumance systems. Its consequences are widespread poverty, hunger and migration, requiring increased relief aid and emergencies on an unprecedented scale and frequency, and creating a potential cycle of debt and indebtedness for the affected populations.

7. In sub-Saharan Africa, land degradation is widespread (20-50 percent of land) affecting some 200 million people; and this is also the region experiencing poverty and repeated natural disasters (especially drought) on a scale unparalleled elsewhere. Land degradation is also widespread and severe in Asia and Latin America as well as other regions of the globe. Climate variations, whether natural or anthropogenic in origin, aggravate the resilience of dryland ecosystems and the sustainability of livelihoods in these dryland zones. Inadequate knowledge of the nature, extent and frequency of land degradation, and the paucity of tools and methods for assessment and monitoring of this phenomenon hamper the adoption of integrated resources use and management policies and rehabilitation programs.

## 3.2 THE IMPORTANCE OF DRYLANDS

### 3.2.1 Biophysical Importance

8. Drylands<sup>17</sup> provide the habitat for species uniquely adapted to variable and extreme environments. To illustrate the importance to global biodiversity, it is estimated that drylands are host to: 39 (out of 234 world-wide) centres of high plant diversity; 103 (out of 217) endemic bird

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<sup>17</sup> The term 'drylands' is taken to cover hyper-arid, arid, semi-arid and sub-humid ecosystems, where the ratio of precipitation (P) to potential evapotranspiration (PET) ranges from less than 0.05 to 0.65. See: Bonkoungu, E.G. no date [c.2001]. *Biodiversity in Drylands: Challenges and opportunities for conservation and sustainable use*. The Global Drylands Partnership. Gland; IUCN URL: <http://www.surf-as.org/DDC/Biodiversity-in-the-Drylands-Challenge-Paper.pdf>

areas; 1406 (out of 5495) of IUCN-Designated Protected Areas; 31 (out of 138) global terrestrial eco-regions, all of which are "outstanding examples of the world's diverse ecosystems and priority targets for conservation actions"<sup>18</sup>. Dryland ecosystems are endowed with uniquely endemic plant and animal species associations or communities, adapted especially to harsh thermal, arid and saline conditions. The species communities exhibit adaptations such as: (a) patchy and clumped assemblages; (b) evasive behaviour; (c) unique eco-physiological structures; and (d) special trophic adaptations. Drylands are also characterised by geomorphological landscapes that include specific weathering, erosion and deposition patterns, low gradient alluvial fans, enclosed drainage systems, hyper-saline lakes, emergent artesian ground waters and particular styles of run-off and recharge and associated aquifers.

9. Dryland soils are important carbon sinks. In spite of low carbon storage on a carbon/unit area base, dryland soils have one of the greatest potentials to sequester carbon. Because of their extensive area (approximately 40 percent of the global land area) and the fact that many of these soils have low soil organic matter content because of past degradation, targets for carbon reduction in the atmosphere would be well addressed by soil improvement<sup>19</sup>. Furthermore, dryland soils are less likely to lose carbon because of lower rates of humification, and consequently the residence time of carbon in dryland soils is much longer than forest soils<sup>20</sup>. Through degradation and rehabilitation, carbon sequestration and climate change are highly significant and sensitive to the condition ('soil health') of dryland soils

### 3.2.2 Socio-economic and Cultural Importance

10. Drylands are now inhabited by over two billion (2.038 billion) people, 37 percent of the world's total population<sup>21</sup>. Asia, Africa and South America have the larger population living in drylands, both in terms of numbers and percent: 1.4 billion, 268 million and 87 million people, or 42, 41 and 30 percent of each region's population respectively. The drylands are the home of the world's poorest and the world's most marginalized – economically and geographically - population. The number of poor rural people living in drylands is estimated near to one billion<sup>22</sup>. In the long history of adaptation to harsh conditions, dryland communities have gained unique knowledge in resource utilization and management. This local or indigenous knowledge is now recognised as having significant value to dryland development. Yet, there are also varying perceptions as to the importance and value of drylands – see Box 2.

11. Each biophysical entity hosts its own uniquely adapted biological communities. Indigenous human communities have traditionally used the biotic resources of these dry zones for their livelihood and have developed complex knowledge systems and management practices. Protection of these highly specialised biotic communities is important not only for learning more about their unique adaptations and trophic dynamics, but also for designing and maintaining sustainable ecosystem and resource uses, and livelihood systems under such harsh climatic regimes. Assessment of biodiversity in dryland ecosystems is generally poor, compared to that

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<sup>18</sup> Robin P. White and Janet Nackoney, 2003. Drylands, people, and ecosystem goods and services: A web-based geospatial analysis. World Resource Institute. URL: [http://biodiv.wri.org/pubs\\_description.cfm?PubID=3813](http://biodiv.wri.org/pubs_description.cfm?PubID=3813)

<sup>19</sup> FAO. 2001. Soil carbon sequestration for improved land management. *World Soil Resources Reports* 96. Rome: UN Food and Agriculture Organization

<sup>20</sup> Glenn, E.P., Squires, V.R., Olsen, M and R. Frye. 1993. Potential for carbon sequestration in the drylands. *Water, Air & Soil Pollution* 70:341-55

<sup>21</sup> See Footnote 13

<sup>22</sup> Dobie, P. 2001 Poverty and Drylands. The Global Drylands Partnership, Nairobi; also quoted by Kofi Annan in the *UN Convention to Combat Desertification*.

of biodiversity-rich ecosystems in the tropics. GEF already supports biodiversity conservation in dry areas through projects such as the project on *Biodiversity Conservation and Sustainable Livelihood Options in Grasslands*. There is a need to include key elements of biodiversity in an assessment methodology for land degradation in these dry zones.

12. Dryland ecosystems are the source of livelihood for a large number of people particularly agro-pastoralists and silvo-pastoralists, large-scale transhumance following seasonal and altitude changes, tourism and wildlife exploitation especially of some seasonally migratory large mammals, and fuelwood and natural product extraction (e.g. Gum Arabica, wild fruits and vegetables). Degradation of natural ecosystems in the face of human and livestock population growth and the environmental changes (recurrent droughts) in these regions has resulted in civil strife, repeated manifestation of poverty and hunger, and in extreme cases in starvation and mass migration; and the increased need of emergency food aid. Assessment of the socio-economic driving forces and cultural attributes and indicators linked to land degradation are well documented, but their integration into development initiatives is still very poor. This integration is crucial if there is to be success in reversing land degradation and mitigating threats of climate change and variability through promoting sustainable land use and the transfer of global benefits of capacity building to the local level where costs are incurred. There is a need to integrate the identified key elements of socio-economic and cultural linkages in a comprehensive assessment methodology for land degradation.

### **Box 2: Summary of Importance and Challenges of the World's Drylands**

Drylands are critically important. They:

- occupy 47 percent of the global land area (excluding Greenland and Antarctica), including the African Sahel, Australian Outback, South American Patagonia, and North American Great Plains.
- support over two billion people or nearly 40 percent of the world's population
- consist of many land cover types, including shrubs, forest, cropland and urbanized areas.
- produce forage for livestock, which in turn supports human livelihoods with meat, dairy products, and clothing materials such as wool and leather.
- originated many staple food crops, such as wheat, barley, sorghum, and millet.
- serve as sources of genetic plant material for developing drought-resistant crop varieties.
- provide habitat for species uniquely adapted to variable and extreme environments.
- store large amounts of carbon, most of it in the soil rather than in vegetation.

Yet, drylands are at the root of many misconceptions. Many see drylands as:

- empty, barren and unproductive places where people are unable to survive.
- unable to support plant and animal life
- degraded beyond restoration due to misuse and overuse from human activity.
- always dry, with drought the main hardship to survival.
- low priority for attention

Source: adapted from World Resources Institute 2003 - [http://biodiv.wri.org/pubs\\_description.cfm?PubID=3813](http://biodiv.wri.org/pubs_description.cfm?PubID=3813)

### 3.3 GEF PROGRAMMING CONTEXT

13. A total of 188 countries are parties to the UNCBD, 191 to the UNCCD and 196 to the UNFCCC. The project is designed to support the objectives of all three conventions, through the sustainable use of biodiversity and land resources. Further, in structuring the project in six major world regions representing particular and specific challenges to land degradation, the up-scaling objectives of the Conventions will be met as well as the recommendation of the Second Overall Performance Review of the GEF<sup>23</sup>.

14. *LADA* is consistent with the objective of the Convention to Combat Desertification, namely to “combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa, through effective actions at all levels, supported by international cooperation and partnership arrangements, in the framework of an integrated approach which is consistent with Agenda 21, with a view to contributing to the achievement of sustainable development in the affected areas<sup>24</sup>. In addition, *LADA* addresses the guidance of the Conference of Parties (COP2) to the Convention on Biological Diversity that stressed the need “to identify the driving forces determining the status and trends of components of biological diversity”<sup>25</sup> and the COP3 asked GEF to provide financial resources for, amongst other aspects, “capacity building for initial assessment and monitoring programs....; supporting efforts for the conservation and sustainable use of biological diversity important to agriculture.”<sup>26</sup> The control of land degradation is fundamental to the conservation and sustainable use of biodiversity, especially in areas of land use such as pastoralism (arid) and in dryland agriculture (semi-arid to dry sub-humid). *LADA* supports the strategic priority on capacity building in sustainable land management (SLM-1) and its emphasis on integration of land-use planning systems, which includes strengthening of information management systems to support decision-making at the national and local levels and, dissemination and replication of good management practices, technologies and lessons learned. *LADA* will respond to these priorities by developing standardised and improved methods for dryland degradation assessment, including the assessment of drivers and impacts on dryland biodiversity as well as human well-being. ‘Best practice’ guidelines will be developed and the results widely disseminated.

15. The project supports GEF priorities in integrating land degradation considerations with the global conventions<sup>27</sup> and is consistent with expanded mandate of the GEF to include land degradation as a focal area.<sup>28</sup> The project also supports WSSD’s Johannesburg *Plan of*

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<sup>23</sup> GEF *Focusing on the Global Environment; OPS2* 25 January 2002: p.xiv “The GEF must place greater emphasis on ..... the potential for replication. .... It should seek to create an enabling environment.”

<http://www.biodiv.org/doc/meetings/cop/cop-06/information/cop-06-inf-29-en.pdf>

<sup>24</sup> United Nations Convention to Combat Desertification. Article 2, paragraph 1.

<sup>25</sup> A Call to Action. Decisions and Ministerial Statement from the Second Meeting of the Conference of Parties to the Convention on Biological Diversity. Jakarta, Indonesia, 6-17 November 1995. Decision II/8, para 3.

<sup>26</sup> UNEP/CBD/COP/3/38, annex II, Decision III/5

<sup>27</sup> Document GEF/C.3/8, endorsed by the Council at its third meeting, outlines GEF activities that are consistent with the objective of the UN Convention to Combat Desertification, and encourages the integration of land degradation into GEF focal area activities. See ‘Strategic Considerations’ GEF *Operational Strategy* (1995)

<sup>28</sup> Beijing Declaration of the Second GEF Assembly, October 2002, paragraph 1.

[http://gefweb.org/Whats\\_New/Beijing\\_Declaration\\_-\\_English.pdf](http://gefweb.org/Whats_New/Beijing_Declaration_-_English.pdf)

*Implementation.*<sup>29</sup> In the context of this project, these environment-development linkage aims will be achieved through the integration of ecological, economic and social goals and through improving people's livelihoods and economic well-being by the better assessment of the environmental problems that bring about poverty and lack of investment.

### 3.4 IMPLEMENTING AGENCY AND EXECUTING AGENCY PROGRAMMING CONTEXTS

16. As Implementing Agency (IA), UNEP's role in GEF is detailed in the *Action Plan on Complementarity Between the Activities Undertaken by UNEP under the GEF and its Programme of Work* (1999). This project addresses the Action Plan strategic objective of "promoting multi-country cooperation directed to achieving global environmental benefits". It will do this by establishing international cooperation mechanisms and the sharing of knowledge of good practice between countries. The project links additionally to the strategic objective of "relating national and regional priorities to global environmental objectives" by building global, regional, national and local capacity for the assessment of land degradation and its impact, and contributing to policy mechanisms for the inclusion of land degradation information at all levels.

17. The Executing Agency (EA), FAO, has a vast experience in executing project of this nature particularly those concerned with land resources. FAO continues to play an important role in major environment-development initiatives and other assessment projects, such as the Millennium Ecosystem Assessment (MA) and the Global Forest Resources Assessment (GFRA). Land and agriculture were among the major topics at the Eighth Session of the Commission on Sustainable Development (CSD-8), New York, 25 April-5 May 2000. FAO played the main role in the preparation of the UN Secretary-General's reports on Chapter 10 (Integrated Planning and Management of Land Resources) and Chapter 14 (Sustainable Agriculture and Rural Development: SARD) coordinating inputs from many UN agencies, NGOs and various stakeholders. The report on Chapter 10 included several task manager reports, namely on Chapter 11 (Combating Deforestation) and Chapter 13 (Sustainable Mountain Development), for which FAO is also task manager, as well as on Chapter 12 (Combating Desertification and Drought), and Chapter 15 (Conservation of Biological Diversity). For the GFRA, the key characteristics included "close collaboration among international forest-related processes such as those related to criteria and indicators for sustainable forest management."<sup>30</sup> LADA will emulate these global assessment projects by addressing international land-related processes, especially the building of capacity to address land degradation. Furthermore, the project is consistent with the three interrelated global goals of FAO as set out in paragraph 20 of the Strategic Framework (2000-2015),<sup>31</sup> particularly the twin objectives of sustainable production and natural resource conservation.

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<sup>29</sup> Paragraph 41(f) of WSSD Plan of Implementation calls on GEF to take action on the recommendations of GEF Council concerning land degradation as a focal area, while Paragraphs 40 (d) and (e) call for efforts to enhance the sustainable use of land and water, especially protection from loss of productivity, land degradation and salinity. [http://www.un.org/esa/sustdev/documents/WSSD\\_POI\\_PD/English/POIChapter4.htm](http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POIChapter4.htm)

<sup>30</sup> FAO, State of the World's Forests 2003. <http://www.fao.org/docrep/005/y7581e/y7581e04.htm>

<sup>31</sup> The Strategic Framework for FAO 2000-2015, Rome. <http://www.fao.org/strategicframework/default.htm>

### 3.5 LINKAGES TO OTHER GEF-FUNDED PROGRAMMES AND PROJECTS

18. During the preparation phase of *LADA* there have been extensive consultations with other ongoing environmental assessments as well as other relevant GEF projects. The most important ones are listed below:

- Millennium Ecosystem Assessment (UNEP/GEF) – UNEP is the executing agency of MA and MA staff has participated in *LADA*'s international consultation workshops. MA has assisted *LADA* in testing the ecosystem approach for dryland degradation assessment in Argentina.
- Global International Waters Assessment (UNEP/GEF) – GIWA attended some of the early workshops to ensure synergy between the two assessments.
- International Assessment of Agricultural Science, Technology and Development (WB/GEF).
- PRC/GEF Partnership on Land Degradation in Dryland Ecosystems in China (ADB/GEF). It has been agreed with ADB that the methodological packages for land degradation assessment to be developed by *LADA* will be scaled up in China under the partnership.

#### **International Strategic and Policy Context**

19. In ratifying the UNCBD, the UNCCD and the UNFCCC, the countries where the main participating institutions are located recognize the threats that land degradation and its impact have on the integrity and functioning of ecosystems and land resources, particularly in drylands, and on the human development of their peoples. The aim of the UNCCD is to “target poverty, drought and food insecurity in dryland countries experiencing desertification, particularly those in Africa”.<sup>32</sup> The aims of the UNCBD are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits.<sup>33</sup> *LADA* is closely linked to the UNCCD process and to integration with the other conventions, most notably UNCBD: the secretariats of both conventions have a contact group to elaborate and initiate a joint programme of work which includes assessments and targeted actions.<sup>34</sup> *LADA* will be an important activity in this cooperation between secretariats, and is already featured prominently on both websites.<sup>35</sup>

20. The selection of pilot countries and the targeting of both ‘hot spots’ (severe degradation) and ‘bright spots’ (degradation largely controlled) reflect the policy concerns of international strategic initiatives, notably in the Millennium Development Goals and the New Partnership for Africa’s Development (NEPAD).<sup>36</sup> The *Environment Action Plan* of NEPAD consists of programmatic areas in combating land degradation and conserving natural resources.<sup>37</sup> The Millennium Ecosystem Assessment (MA), launched by the Secretary-General of the United

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<sup>32</sup> United Nations 1994. *Earth Summit: Convention on Desertification*. UN Conference on Environment and Development, Rio de Janeiro, Brazil 3-14 June 1992. Rep. DPI/SD/1576, UN, New York

<sup>33</sup> Article 1 *Convention on Biological Diversity* <http://www.biodiv.org/convention/articles.asp>

<sup>34</sup> UNCCD/COP5, Geneva, 2001. Review of Activities for the Promotion and Strengthening of Relationships with other Relevant Conventions, Section 2. <http://www.unccd.int/cop/officialdocs/cop5/pdf/6eng.pdf>

<sup>35</sup> For example, UNCCD, 2003, *Land Degradation Assessment in Drylands and the Millennium Ecosystem Assessment* (<http://www.unccd.int/cop/officialdocs/cop6/pdf/cst7eng.pdf>); UNCBD, 2004, *Thematic Programmes of Work: Progress Reports on Implementation and Consideration of Proposals for Future Actions: Biological Diversity of Dry and Sub-humid Lands* (<http://www.biodiv.org/doc/meetings/cop/cop-07/information/cop-07-inf-29-en.pdf>)

<sup>36</sup> *Action Plan of the Environment Initiative of NEPAD* (June 2003)

<sup>37</sup> NEPAD’s mandate on environment is co-ordinated by UNEP

Nations in June 2001 to meet the needs of decision-makers for scientific information for policy, has a conceptual framework where land use change and cover are one of the main drivers for ecosystem integrity. Further, the MA has established strong relationships with both the UNCCD<sup>38</sup>, directly applying the work of *LADA* in its PDF-B phase, and the UNCBD, with the latter using the MA for some its assessment needs.<sup>39</sup> The International Programme for Biodiversity Science (*Diversitas*)<sup>40</sup> includes ecosystem services affected by land degradation and bio-sustainability as two of its three core projects, and has invited *LADA* scientists to contribute.

### 3.6 CONSEQUENCES OF CONTINUING THE BASELINE CONDITIONS

21. Without the proposed GEF intervention, the on-going uncertainty as to the seriousness and extent of land degradation will continue. Policy responses will remain undirected by quality assessments at global, national and local levels. Environmental issues of soil and land degradation, and their impacts on dryland ecosystems and human well-being, will not be integrated into key development objectives related, for example, to the Millennium Development Goals. ‘Desertification’, although widely viewed as a major environmental issue in scientific, political and even popular circles<sup>41</sup>, will remain marginalized amongst the global environmental change processes until and unless there is a widely-accepted underpinning of its role as a process by quality assessments of its extent and impact. If land degradation control is to have any realistic opportunity to become effective, assessment must be rendered more efficient, effective and reproducible. If countries are to tackle the impoverishment of their drylands, they must have the human resource capabilities and capacities of their institutions improved. Without the project, the continuing state of uncertainty over land degradation will remain, and the policy paralysis mentioned above will continue to mean that land degradation control will get sporadic, inequitable and ineffective attention.

## IV. RATIONALE AND OBJECTIVES

### 4.1 PRINCIPAL PROJECT OBJECTIVES

22. The first principal objective of the project is [to develop and implement strategies, methods and tools to assess, quantify and analyse the nature, extent, severity and impacts of land degradation on ecosystems, watersheds and river basins, and carbon storage in drylands at a range of spatial and temporal scales.](#) The assessment will integrate biophysical factors and socio-economic driving forces. By the end of the project, *LADA* will have developed a standardized methodological framework to assess the process of dryland degradation. Guidelines for dryland degradation assessment will have been written based upon prior and project experience, and baseline degradation assessments completed. These baseline assessments will be global (largely from existing information sources) to identify priority ‘hot spots’ where the potential impacts on ecosystems is severe, national and local. These last assessments will be detailed to focus on areas of greatest risk and areas where degradation is successfully controlled. This first project

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<sup>38</sup> Decision: Land Degradation Assessment in Drylands and the Millennium Ecosystem Assessment – adopted by UNCCD/COP6, Havana, August 25 - September 5, 2003. See <http://www.millenniumassessment.org/en/partners.conventions.ccd.aspx>

<sup>39</sup> UNCCD/SBSTTA Recommendation V/1 Cooperation with Other Bodies

<sup>40</sup> Sponsored ICSU, SCOPE, IUBS, IUMS and UNESCO – see <http://www.diversitas-international.org>

<sup>41</sup> See Thomas, D.S.G. & N.J. Middleton 1994. *Desertification: Exploding the Myth*. Wiley, Chichester.



objective will be completed by developing appropriate monitoring systems in-country to provide warning of land degradation and its impact.

23. The second principal objective of the project is to build national, regional and global assessment capacities to enable the design, planning and implementation of interventions to mitigate land degradation and establish sustainable land use and management practices. By the end of the project, capability will have been built in three main areas of land degradation assessment for drylands. All participating countries will increase their capacity to analyse in order to assess and understand the causes of land degradation areas at risk. They will have a better understanding of the types, extent and severity of land degradation, and the consequent changes in soils, land cover, ecosystems and agro-ecological zones as well as on the resources used for agriculture. Capacity building for analysis will also include the ability to assess processes, driving factors and causes of land degradation, to understand the impacts on ecosystem function, carbon storage, watershed integrity and international waters and to appreciate the developmental impact on food security, livelihoods and poverty. Participant countries will be enabled through following best practices for the identification, control and prevention of land degradation in drylands. Institutions will be facilitated and integrated in policy and decision-making. Particular emphases will be on multi-stakeholder involvement and participation, especially of land users, farmers and the rural poor at the local level and of policy-makers at national and global levels. Local professionals and extension agents will be trained in field assessment of land degradation through adopting a farmer-perspective and using a sustainable rural livelihoods approach. Best practices will also identify the synergies between different global benefits (biodiversity, climate change, international fresh water basins/river systems) and between global and local benefits (food security, livelihood support, and poverty alleviation). A further feature of *LADA* will be to adapt scientific knowledge at global, regional and national levels in order to integrate with local knowledge where local people have successfully controlled land degradation. Capacity will be built to scale-up lessons and recommendations to a wider target group and to non-project areas. Monitoring systems will be established to sustain improvements in land use and management practices. Finally, in its role in capacity building, *LADA* will communicate and exchange land degradation information in order to complete the linkage to policy process and decision-making. It will do this through policy guidance (in, for example, UNCCD Regional, Sub-regional and National Action Programmes), GEF and implementation agency interventions in land degradation control, and the identification of priority actions, such as policy and institutional reforms and development investments at all levels. Communication and exchange will be furthered by the implementation of best practices to identify land degradation issues and employ lessons to check and reverse problem issues and the development of monitoring on the changing severity of land degradation and effectiveness of remedial control measures.

#### 4.2 ENVIRONMENTAL, DEVELOPMENTAL AND DOMESTIC BENEFITS

24. The objectives mentioned above are expected to help to overcome current policy and institutional barriers to sustainable land use in dryland zones that are occasioned by the lack of quality information on the extent and severity of dryland degradation. Through improved decision-support, they will also assist establishment of incentives to promote the accrual of global environmental benefits at national and local levels. The attainment of the objective on tools and methods will be evident in the quality and quantity of methods guidance documents and guidelines, national dryland degradation assessments, impact assessments and global land

cover change data. Assessments independent of the project (such as GFRA, GIWA, GPA, MA and IPCC) will be especially important in verifying project attainment. Capacity-building will be verified through policy development, implementation of best practices and other methodological recommendations, the number of participatory surveys and project plans for implementation. The achievement of effective monitoring systems in place in each participating country will be especially significant.

25. The [alternative scenario](#) will deliver benefits from: (a) an innovative integrated approach to land degradation assessment using high resolution remote sensing and GIS techniques, advanced models capable of integrating biophysical and socio-economic data and information, and the linkage of policy and institutional issues into the methodology; (b) a calibrated approach robust enough for inter-regional and global comparisons, as well as for national assessments and for monitoring and prediction; (c) early warning systems of land degradation trends and ‘hot spots’ together with their policy and institutional causes, so that remedial or restorative actions may be carried out promptly; (d) a network of regions<sup>42</sup> and strengthened capacity to undertake land degradation assessment, interpret the results and provide information for land use; and (e) land degradation assessment information readily available and user friendly for land users and decision and policy-makers so that appropriate investments may be made for ensuring sustainable livelihoods, protecting scarce water and soil resources, sequestering carbon especially in the soil, building on the lessons from ‘bright spots’ and ‘best practices’, and conserving endemic biodiversity of global significance especially intra-specific polymorphism.

26. Additional domestic benefits will accrue from the project. Not only will scientists better relate to the development objectives of their country, but policy-makers will more readily accept scientific advice on land degradation, its impact and control measures. Better strategies, tools and methods of land degradation assessment for drylands will help to mainstream environmental information in global, regional and national development planning. They will enable a better prioritization of the opportunities and potentials for drylands, and overcome some of the prejudice associated with these eco-regions (see Box 2).

#### 4.3 COMPLEMENTARY INTERVENTIONS AND GLOBAL BENEFITS

27. To achieve the two objectives requires substantial country commitment and the full involvement of all the stakeholders. Multi-stakeholder participation is an essential prerequisite. The participating countries and their institutions have made the necessary commitments and will pilot the full development of the techniques and approaches of the main project as a demonstration of potential attainment of global benefits. Further, the participating countries agree to act as regional catalysts for uptake and up-scaling to other countries of their region, through workshops, dissemination of materials and leadership of regional organizations. Full global benefits will only be achieved when all countries with substantial drylands at risk from degradation not only accept the tools and methods developed by the project, but build their own capacity to analyse the causes and consequences of degradation. While working closely with the participating countries to develop quality Outcomes, the IA and EA will invite and encourage the involvement of other countries. To catalyse widespread adoption of comprehensive sustainable land management that takes full account of the threats posed by land degradation will

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<sup>42</sup> Based initially on six focal countries in six important regions for dryland degradation, each of whom will then carry out dissemination and out-scaling to other countries in their region

require a parallel and complementary intervention by FAO, its member countries and its partners, through regional networks (such as those existing in the Global Mechanism, the UNCCD Secretariat and NEPAD), country offices (FAO, UNEP, UNDP, World Bank) and development agencies.

#### 4.4 RATIONALE FOR GEF FUNDING

28. Dryland ecosystems are under threat from a combination of socio-economic and biophysical changes that potentially culminate in a downward spiral of poverty leading to land degradation. The lack of reliable and comparable information on land degradation in drylands has been a major constraint to the implementation of the UNCBD and UNCCD and to the protection of international waters. The 14<sup>th</sup> GEF Council meeting in November 1999 endorsed the advice of its Scientific and Technical Advisory Panel (STAP) and adopted an Action Plan for Enhancing GEF Support to Land Degradation.<sup>43</sup> Further, the GEF Council in May 2001 recommended that land degradation be designated a focal area of the GEF, which was reaffirmed at the December 2001 GEF Council<sup>44</sup>. Land degradation was endorsed as a full focal area at the Second GEF Assembly in Beijing in 2002.<sup>45</sup> Hence *LADA* responds to the need to strengthen support to land degradation within the context of the GEF.

29. The project also responds to the needs of the joint work program between convention secretariats of the UNCBD and UNCCD on Dry and Sub-humid Lands.<sup>46</sup> It was fully endorsed by COP4 of the UNCCD in Bonn, Germany on 11-22 December 2000 in its Decision 18<sup>47</sup>, which requested the involvement of the Parties so as to take full account of their concerns in project formulation and development. At the most recent COP6 in Havana, Cuba, at its 9<sup>th</sup> Plenary Meeting, 3 September 2003, Decision 19 noted with appreciation the work to date on *LADA*, encouraged its continuation, requested the UNCCD Executive Secretary to strengthen links with *LADA*, and requested the project to take account of the needs of UNCCD national focal points.<sup>48</sup> Subsequent development of the full project has taken account of these requests and involved full consultation with the UNCCD Secretariat and the Global Mechanism.<sup>49</sup>

30. The project is eligible for GEF assistance under Operational Programs that address eco-regional, biodiversity and land degradation issues. Three Operational Programs are directly relevant: OP1 (Arid and Semi-Arid Ecosystems) to target interventions to arid and semi-arid ecosystems; OP12 (Integrated Ecosystem Management) to catalyse widespread adoption of comprehensive ecosystem management interventions; OP15 (Sustainable Land Management) to mitigate the causes and impacts of land degradation on the structure and functional integrity of

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<sup>43</sup> GEF 1999. Clarifying Linkages Between Land Degradation and the GEF Focal Areas: an action plan for enhancing GEF support. See [http://www.gefweb.org/COUNCIL/GEF\\_C14/gef\\_c14\\_4.pdf](http://www.gefweb.org/COUNCIL/GEF_C14/gef_c14_4.pdf)

<sup>44</sup> See document GEF/C.17/5, April 5, 2001: Options for Enhancing GEF Support for the Implementation of the United Nations Convention to Combat Desertification.

<sup>45</sup> Proposed Amendments to the Instrument. GEF A.2/9, 31 July 2002.

[http://www.gefweb.org/participants/Assembly/2nd Assembly/GEF.A.2.9 Proposed Amendments to the Instrument ENGLISH.doc](http://www.gefweb.org/participants/Assembly/2nd%20Assembly/GEF.A.2.9_Proposed_Amendments_to_the_Instrument_ENGLISH.doc)

<sup>46</sup> Possible elements for a joint work programme between the Secretariat of the Convention on Biological Diversity and the Secretariat of the Convention to Combat Desertification on the biological diversity of dry and sub-humid lands (UNEP/CBD/COP5/5/INF/15).

<sup>47</sup> UNCCD, report of COP4, <http://www.unccd.int/cop/officialdocs/cop4/pdf/11add1eng.pdf>

<sup>48</sup> UNCCD, report of COP6. <http://www.unccd.int/cop/officialdocs/cop6/pdf/11add1eng.pdf>

<sup>49</sup> See, for example, Proceedings and Outcomes of the *LADA* Steering Group, 23-25 January 2002, Rome, involving participants from UNCCD and GM, amongst 60 others. <http://www.fao.org/ag/agl/agll/lada/outcome.stm>

ecosystems. *LADA* will generate up-to-date ecological, social, economic and technical information, including a combination of traditional knowledge and modern science, to guide integrated and cross-sectoral management planning in drylands.

#### 4.5. PROJECT COMPONENTS, ACTIVITIES AND EXPECTED OUTCOMES

31. *LADA* has four main project components and associated outcomes. These components and outcomes relate to both principal objectives: (i) to develop and implement strategies, methods and tools to assess, quantify and analyse the nature, extent, severity and impacts of land degradation on ecosystems, watersheds and river basins, and carbon storage in drylands at a range of spatial and temporal scales; (ii) to build national, regional and global assessment capacities to enable the design, planning and implementation of interventions to mitigate land degradation and establish sustainable land use and management practices. *LADA* will better meet its environmental goals of catalysing widespread adoption of comprehensive management interventions through having both a validated system of land degradation assessment and the trained people to deliver improvements over and above the baseline condition.

32. Land degradation assessment requires robust and verified techniques, based upon sound conceptual and integrated models that combine technical, social and economic issues. These models must respond to the needs of users and reflect the processes that drive land degradation and its impact on society. Therefore, the first project component is “Development of the *LADA* approach: land degradation assessment guidelines, network and information system”. The outcome of this component will be an improved needs-based and process-driven approach to drylands degradation assessment tested and disseminated. The first step to achieve the outcome of this component is to adopt a standardised methodological and conceptual framework for the assessment of land degradation and its impact. The major change from the baseline conditions will be an applicable and relevant assessment method available to professional stakeholder groups to undertake comparable and comparative land degradation assessment that is both technically verified and socially relevant. National task forces will conduct needs assessments, which will be analysed through the DPSIR Assessment Framework<sup>50</sup>. Existing information sources will be utilised wherever possible, along with key indicators of the proximate causes of degradation. A number of proxy and new assessment sources and datasets are available, to apply at a variety of scales, including GLASOD/SOTER, GLCN/LCCS/Africover. Three key requirements will be elaborated during the work for this planned result: the methods must have diagnostic capability; they must monitor impact on human development and poverty alleviation; and they must provide the basis for an explicit link to policy and decision-making processes. The steps towards achievement of the result will be through reviews of existing work, the design of a suitable information system, its testing, and then in the six participating countries the information system will be integrated into national planning to identify critical areas.

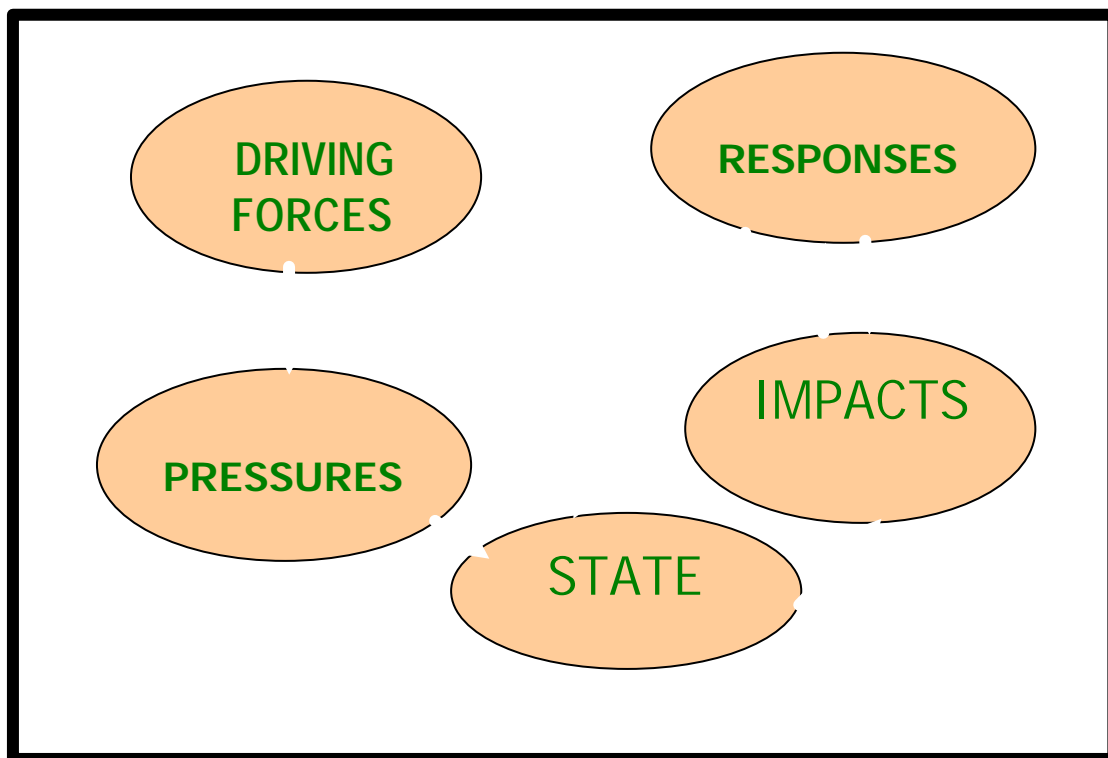
33. The second project component is “Carrying out global and regional land degradation assessments”. The outcome of this component will be a map with information retrieved from the global/regional land degradation assessment in drylands, which will constitute a baseline of the status of land degradation in drylands, with an especial emphasis on areas at greatest risk. Identifying the baseline at a variety of scales is critical to measure how far remedial actions for

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<sup>50</sup> Based on OECD 1993. *OECD core set of indicators for environmental performance reviews*. Environment Monographs No.83, Paris; Gobin, A., Govers, G., Jones, R., Kirkby, M. and Kosmas, C. 2003. *Assessment and reporting on soil erosion. Background and workshop report*. Tech. rep. 94, European Environment Agency, Copenhagen. See also, *LADA* sponsored paper – Van Lynden, G.W.J. *et al* 2004. *Guiding principles for the quantitative assessment of soil degradation*. Report AGL/MISC/36/2004, UN Food and Agriculture Organization, Rome

both the processes of land degradation and its impacts have changed the degradation status. This involves collection and collation of existing maps and databases, through geo-referencing and digitising all information, inputting the natural resource and socio-economic characteristics, integrating with other databases such as GTOS, gap filling and the identification of missing data. The steps towards achievement of this component outcome are baseline collecting data and storing it in an accessible and user-friendly platform, producing baseline maps, and listing nationally-agreed ‘hot-spots’ and ‘bright-spots’. In undertaking this baseline compilation, project objectives will be fully supported in both the areas of tools and methods and in capacity building. The national-level skills developed here are fundamental to the achievement of the further planned results. Among the final activities under this component will be to hold regional and sub-regional workshops to inform potential end-users of the scope and the system and the baseline situation. Areas for more detailed assessment will also be identified against criteria for remediation priority.

**Box 4: The DPSIR Land Degradation Assessment Conceptual Framework**



*LADA's conceptual framework is based on an original pressure-state-response model from the 1970s, subsequently adopted by the OECD in 1993 and developed further into the current model by the European Environment Agency in 2001. It captures the driving forces and pressures – largely controlled by human activity – and their effects on the environmental system and state of natural resources. For land degradation assessment, the impacts and societal responses are especially important, enabling the assessment process directly to feed into measures for control of land degradation and rehabilitation of lands*

34. The [third project component is “Carrying out local assessments in hot spots and bright spots in pilot countries”](#). The [outcome of this component will be detailed local assessments and analysis of land degradation and its impact in the pilot countries](#). In order to balance the addressing of critical areas for land degradation (‘hot spots’) with the learning from areas that

largely control land degradation ('bright spots'), local assessments will select from both situations, thereby providing a better platform for information systems linked to policy at national level. *LADA* will counter the pervasive view that land degradation is potentially and actually critical everywhere in drylands and that only imposition of externally-driven solutions can remedy the problem. To achieve balanced local assessments, training and capacity-building in detailed assessments and analysis will be undertaken along with in-country user-needs assessments. Each participating country will initiate detailed assessments for at least two sites, supported by national-level policy forums to create the linkage processes to local bye-laws, national planning and development practice. The steps towards achievement of the planned result commence with the training of relevant professionals in land degradation assessment, impact analysis and related developmental factors. Following training, the needs of users of land degradation assessment will be surveyed, along with the operation of supporting national-level integrated information systems. Pilot national assessments will then be completed and evaluated for scaling-up. Finally to achieve this planned result, an integrated information system will be in place to provide relevant data on land degradation for policy, planning and control interventions. Policy forums at national and local level will support the process. The main performance indicator for achievement of this result will be the collation and dissemination of successful practice in policy change through institutions (including legal and incentive mechanisms) and resource allocation based upon quality land degradation assessment.

35. The [fourth project component is "Carrying out a major analysis and preparation of an strategy for global action"](#). The [outcome of this component will be a proposed global action plan, incorporating main findings from the project, conclusions and recommendations for further action](#). During this component *LADA* information products will be used to promote action and decision-making for the control and prevention of land degradation in drylands. This outcome will be driven by best practice guidelines, communication and exchange of information and uptake of approaches at all levels. To achieve this outcome, the steps outlined for the earlier outcomes will be followed at global, regional, national and local levels in areas defined as high priority for intervention. This includes analysis of key critical conditions for successful control and prevention of land degradation in drylands, user surveys, review of examples of 'best practice' and successful implementation, and the packaging, communication and exchange of land degradation information globally, regionally and nationally. The steps to attain this planned outcome commence with the design and demonstration of a generic framework for the analysis of critical components in land degradation. Success narratives are then analysed and presented, which are linked to the policy process. At global level, it is anticipated that the presentation will be undertaken through an international meeting convened by the EA, IA and Convention secretariats, and attended by those involved in control, prevention and policy development for land degradation. Contributors and scientists involved in *LADA* – expected to number at least one hundred from national level participating countries – will become actively involved in UNCCD, RAP, SRAP and NAP further development and support for implementation of these plans. At international level, in liaison with GEF Secretariat, *LADA* scientists will actively assist implementation of GEF-OPs. By the end of the project, international partners will be fully engaged with the *LADA* approach and at least three additional countries from the regional networks will be using *LADA* outputs. Evidence of achievement of the planned result will include the development of dissemination and up-scaling strategies, the establishment of a Web-based *LADA* portal and platform linked to FAO-UNEP sites, with all documents and advisories available on-line, an International Conference on *Land Degradation Assessment and Analysis in Drylands* and a *New Atlas of Desertification / Land Degradation* which includes a publicly-accessible account of all *LADA* outputs

36. As demonstrated in the PDF-phases of *LADA*, one of the primary attributes of the project and its partners is the delivery of products in accessible, usable and comprehensive form – see [Annex G](#) for a listing of major products published in print form, web-based and on multi-media sources. This will accelerate in the full project, backed by a full set of reports, records of meetings, scientific papers, international conference presentations and inputs to action plans at all levels. The *LADA* partners recognize that it is only through wide and full dissemination of project outputs, including success narratives and accounts of ‘best practice’, that change over and above the baseline will be initiated. The partners are well placed to meet this challenge through existing sources, such as web-based portals, and through new initiatives especially at policy level.

## **V. RISKS AND SUSTAINABILITY (INCLUDING FINANCIAL SUSTAINABILITY)**

37. The sustainability of the project’s outputs depends primarily on (1) the continuing commitment of the core participating countries and their institutions to engage in a unified and standardized process of land degradation assessment; (2) the access to data, surveys and remote sensing imagery by stakeholders involved in the assessment process; and (3) the free flow of information and exchange of communication between all stakeholders, but especially the lead institutions in the core participating countries and their regional collaborators for uptake and up-scaling. At Outcome and Activity levels (i.e. during the course of the project), the availability of relevant scientific and multi-disciplinary expertise at national, regional and global levels, as well as the sufficiency and comprehensiveness of existing information may prove to be a constraint. On the first, the risk of loss of commitment has been minimised through the adoption of a fully participatory approach, where institutions in the core countries have been engaged in pilot surveys and development of the methodology, as well as participants in the various PDF-B meetings. On the second, access to data has been ensured by engaging the institutions that hold the data as full participants in *LADA* and conducting preliminary analyses using their skills. On the third, it is recognized that information flows cannot always be perfected, but the core institutions have made commitments to act as catalysts for the uptake of *LADA* products, and FAO through its regional and global networks will supplement the free flow of information and communication. The risk of insufficient expertise in land degradation assessment and analysis is being addressed by Objective 2 of the project, capacity-building, where existing cadres at all levels will be supplemented especially in the areas of analysis and best practices.

38. Financial sustainability of the project will be ensured by mainstreaming of land degradation assessment approaches into integrated ecosystem planning, sustainable land management and related policy instruments at local, national, regional and global levels. With global support from FAO ensured, governments will be enabled to provide for land degradation assessment through their regular sector budgets. A further factor in the sustainability of the project is that improved land management practices arising from better assessment and analysis will be economically viable and environmentally supportive. Continued up-scaling of improved assessment techniques will be promoted by the core regional countries and their institutions.



## VI. REPLICABILITY

39. The project has two mechanisms inherent in its design to assure replication. First, the project is structured around six pilot countries and their lead institutions for conducting land degradation assessment and analysis for drylands. These countries are focal regional countries with an already-acknowledged interest and expertise in assessment processes: Argentina – for the South America region; China – for East Asia region; Cuba– for Central America and the Caribbean region; Senegal – for Francophone West Africa; South Africa – for Southern, Central and Eastern Africa region; Tunisia – for Near East, North Africa and Mediterranean region. Three – Argentina, China, Senegal - have been involved throughout the PDF phase of *LADA*, conducting pilot studies and being involved in regional and global level meetings. They fully subscribe to Outcome 4 of the Project Logical Framework (**Annex B**) which involves their undertaking regional promotion, training, dissemination and other collaborative ventures. This will be complemented by FAO's regional networks. South Africa has similarly been involved as an active PDF-phase participant. The other two countries have made the necessary commitments to work regionally and collaboratively.

40. Secondly, the project in its Outcome 4 will deliver 'best practice guidelines', including full reviews of good practice and successful implementation, and finalized best practice advice. A particular strength of the project is that best practice will not be confined to actions to rehabilitate severe land degradation; they will also stress situations where land degradation is effectively controlled, highlighting the generic conditions, socially, economically and biophysically, for this to happen. The project outcomes will, therefore, offer replication potential regionally to cover all eco-zones where there are major problems of dryland land degradation and thematically to cover a range of land uses and types of degradation. Dissemination, uptake and up-scaling are all important activity components of Outcome 4, thereby providing for replication globally.

## VII. STAKEHOLDER INVOLVEMENT

41. As a global project, *LADA* involves a large number of stakeholders at a variety of levels from the GEF itself; the UNCCD and its Global Mechanism; international scientific and consultative organizations such as UNEP, FAO, CGIAR-institutions and ISRIC; service agencies, training institutions and educational establishments; national governments, agencies and NARS. The principal partners and stakeholders in the project are the institutions of dryland countries involved in making assessments of land degradation for policy purposes and the implementation of remediation measures. These partners are supported by *LADA*'s IA (UNEP), EA (FAO) and UNCCD Secretariat, as well as a number of specialist agencies involved in assessment: at a global level these include the EROS Data Center, ISRIC (based at Wageningen University), WOCAT (based at Bern University); at a regional level, these include OSS, CGIAR centres for dryland agriculture (ICARDA and ICRISAT); and at a national level by the ministries and service/research organizations responsible for land survey and assessment.

42. Stakeholders at all levels have been invited and have attended the main *LADA* workshops held at FAO in Rome: the First Technical Advisory Group and Steering Meeting, 23-25 January 2002<sup>51</sup>; Technical Meeting, 5-8 November 2002<sup>52</sup>; Second Technical Advisory

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<sup>51</sup> 61 persons attended. See *Proceedings* - <ftp://ftp.fao.org/agl/agll/lada/wsr.doc>

Group, 24-26 May 2004.<sup>53</sup> In addition, *LADA* held a successful e-mail conference, 9 October to 4 November 2002<sup>54</sup> to which over a thousand experts in land degradation and desertification were invited to contribute. The 104-page *Proceedings* of this Conference not only provide a state-of-the-science review of issues related to land degradation assessment, but also demonstrate the commitment of national and international stakeholders in *LADA*. The various meetings and conferences have covered broadly four themes: (1) Methods, indicators and a conceptual framework; (2) National-level land degradation assessment; (3) Local-level land degradation assessment; and (4) Global land degradation indicators and a drylands network. The opportunity has been widely available and publicized for all interested stakeholders to join the *LADA* network.

43. Further stakeholder meetings have occurred at national level in the PDF-B pilot participating countries: Argentina, China and Senegal – see **Annex F** for reference details of the proceedings of these meetings. Argentina had a major workshop in 2003 involving stakeholders from throughout the country,<sup>55</sup> and has a comprehensive website.<sup>56</sup> In April 2003, Senegal completed a national evaluation for land degradation, involving a wide range of national partners as well as FAO.<sup>57</sup> China is in process of translating its reports and making these publicly accessible. Other countries in the *LADA* network have also participated as stakeholders: these include Egypt, Kenya, Malaysia, Mexico, South Africa and Uzbekistan.<sup>58</sup>

## VIII. IMPLEMENTATION AND EXECUTION ARRANGEMENTS

44. The project will be executed by FAO. A senior FAO staff member will coordinate the project (Project Manager) assisted by a Technical Advisor (P3) and advised by a *LADA* Task Force, comprised of representatives of all relevant technical units within FAO. The Project Manager and the Technical Advisor will oversee the global assessment (Outcome 2) and the generic (methodology, conceptual framework, networking – Outcome 4) parts of *LADA* and will liaise with national partners. The Technical Advisor will work closely with the Project Manager at FAO and with the Task Force, consisting of members drawn from the relevant divisions of FAO<sup>59</sup>, assisted by co-opted experts from the Scientific Committee where relevant.

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<sup>52</sup> 48 persons attended. See *Proceedings* - <ftp://ftp.fao.org/agl/agll/lada/reporttechnmeeting.doc>

<sup>53</sup> 58 persons attended. *Proceedings* First Draft, available from FAO

<sup>54</sup> 148 persons were active subscribers to the Conference, with 41 posting major contributions acknowledged in the *Conference Proceedings* - <ftp://ftp.fao.org/agl/agll/lada/econf.doc>

<sup>55</sup> LADA Task Force 2003, Taller Nacional sobre Evaluación de Degradación de las Tierras en Zonas Áridas. Proyecto LADA 12 al 15 de mayo de 2003- Buenos Aires Argentina.

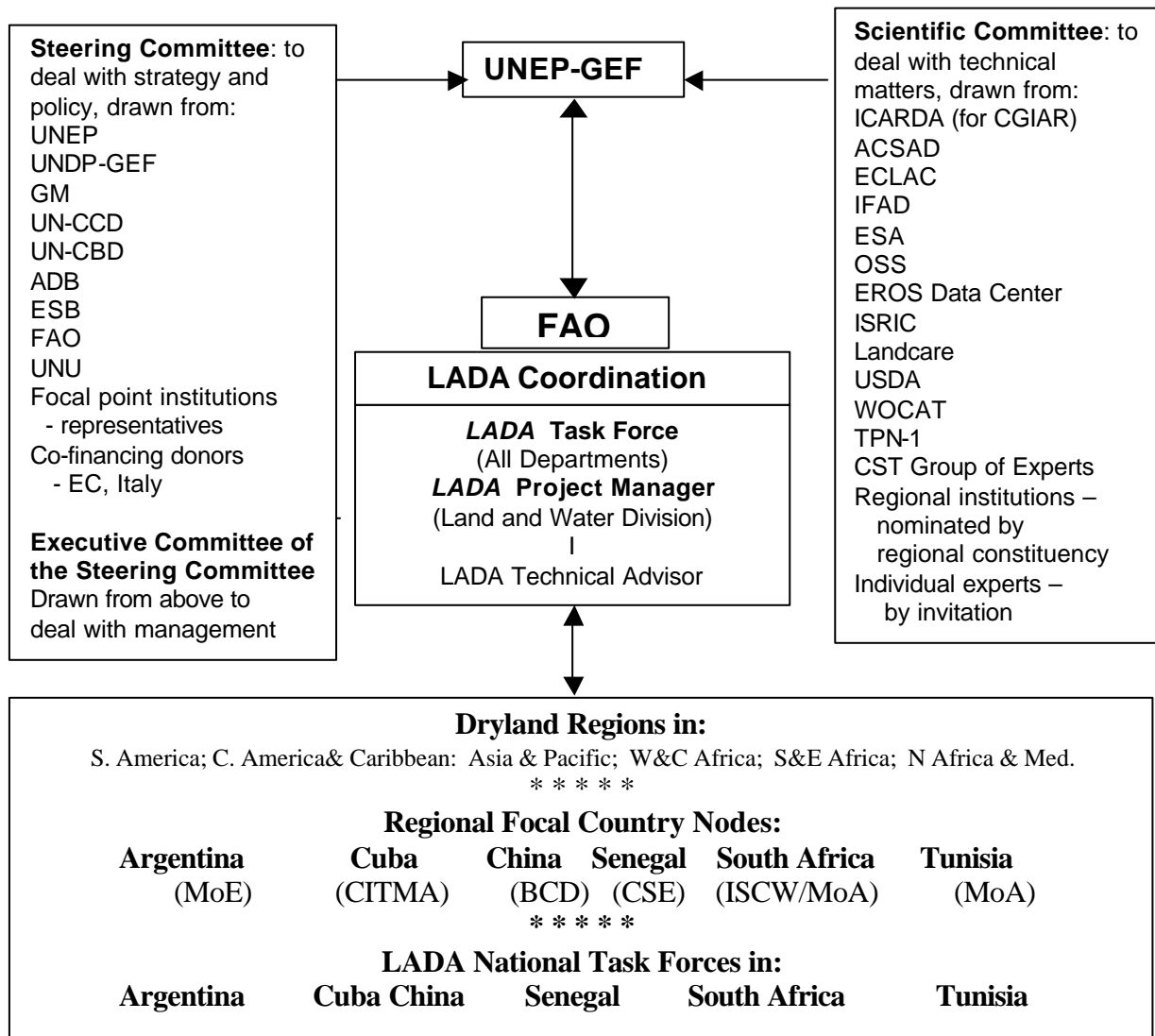
<sup>56</sup> <http://www.fao.org/ag/agl/agll/lada/arg/inicio.htm>

<sup>57</sup> See <ftp://ftp.fao.org/agl/agll/ladadoes/rapportladasenegal.doc>

<sup>58</sup> See <http://www.fao.org/ag/agl/agll/lada/pilot.stm> for reports on these case studies.

<sup>59</sup> Currently, officers from the following divisions of FAO are involved in *LADA* and members of the Task Force: AGLL, AGLW, AGSF, ESEA, FOR, GILD, SDRN, SDWW, TCAP, TCIE, TCIS, combining experience of Agriculture, Land and Water, Economics, Extension, Forestry, Remote Sensing, Sustainable Development, Technical Cooperation.

# LADA Project Management Organigram



45. The project will be executed primarily by national teams of experts drawn from national research institutions, universities, government agencies and development and policy-making institutions in the participant countries. The scientists in each national team cover a range of skills and disciplines relevant to land degradation assessment, analysis and impact – see **Annex E**, Public Involvement Plan. At a global level, *LADA* will co-ordinate with the UNCCD framework to ensure a key support role in implementation of RAPs, SRAPs and NAPS. This will enable the action plans to have a better quantitative basis and allow calculation of resources for mobilization of land degradation control and remediation. In the pilot countries and case study countries during PDF-B, close collaboration has already been established with NARS, extension services and NGOs, as well as with environmental institutes and development agencies. Each participating country team has been free to develop these linkages and networks.

In the full project, the Project Task Force will establish collaborative guidelines for national teams to ensure that policy linkages especially are fostered and made fully operational.<sup>60</sup>

46. *LADA* aims to provide a supportive role for the implementation of the priorities of the GEF, UNCCD and UNCBD pertaining to drylands. *LADA* will contribute a methodology and conceptual framework for assessment and impact analysis at a variety of scales in order to improve the design and impact of projects addressing land degradation under OP1, 12 and 15. The project has also established initial linkages with other major regional and global initiatives, such as NEPAD, MA, MDGs and JPOI/WEHAB. These linkages will be progressively strengthened in *LADA* as the project develops its Outcome 4 products.

## IX. INCREMENTAL COSTS AND PROJECT FINANCING

### 9.1 INCREMENTAL COSTS

47. *LADA* will achieve global, regional, national and local benefits in the form of improved land degradation assessment strategies, methods and tools and by building capacity to analyse, design and plan the implementation of interventions to mitigate land degradation. *LADA* will provide a common framework and methodology for land degradation assessment across national, regional and international boundaries in order to identify priority areas for attention. At all scales, but especially at global and local, the assessment components of *LADA* complement the baseline activities carried out by the several agencies, governments and research/survey organizations world-wide. Global benefits will accrue to globally-significant ecosystems and hydrological basins of the drylands. At global level, the baseline includes several initiatives for satellite remote sensing of land degradation at low, medium and high resolution, particularly the global LANDSAT data set donated to UNEP by NASA.<sup>61</sup> International institutions are not, however, actively engaged in linking knowledge of land degradation to the potential global environmental benefits that would accrue by effective land degradation control. Accordingly, *LADA* is fully complementary and the costs are eligible for GEF funding. Co-financing will support the more developmental parts of the Project Goal, such as the contributions towards improving people's livelihoods achieved through the better application of assessment and impact analysis.

48. The national and local assessment components of the project are largely complementary in all six participating countries. The type of integrated assessment developed and made available by *LADA* is not currently used because of the lack of validated methods, the unawareness of the techniques to link land degradation assessment to the structure and functional integrity of ecosystem and to developmental goals, and the unavailability of suitable data sources. Awareness of the importance of land degradation assessment at national level is evident in important baseline initiatives in, for example, the China National Water and Soil Conservation Monitoring, as well as a number of national biodiversity and development projects that contain substantial assessment and monitoring components. In *LADA*'s PDF-B phase Workshops, participating countries have noted the lack of coherence and validation in the methods being used, leading to dubious conclusions on the state of the land and the appropriate remedial

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<sup>60</sup> This is Activity 4.4 in the Project logical framework

<sup>61</sup> See *LADA* commissioned review: Lantieri, D. 2003. Potential use of satellite remote sensing for land degradation assessment in drylands: application to the *LADA* project. Environment and Natural Resource Service, SDN, UN/FAO, Rome, 73pp.

measures to be adopted. At the same time, because national and local assessments are designed to catalyse regional assessments through the six focal point countries, global benefits will be obtained beyond the specific locales and nations directly involved in *LADA*.

## 9.2 PROJECT COMPONENT FINANCING

49. The total project cost is US\$4.98 million, of which US\$7.98 million is derived from donors and participating countries that see the value of joining a global initiative with globally-relevant outputs but also with strong application at local and national levels. The global scope of *LADA* presents methodological difficulties in assessing the baseline and incremental costs. The incremental costs analysis (see [Annex A](#)) follows the procedure used in previous global assessments supported by the GEF, such as the Global International Waters Assessment and the Millennium Ecosystem Assessment. The GEF contribution of US\$7 million amounts to less than half of the total project cost. The component financing is presented in the following two tables, according to incremental cost analytical information and to proportions requested from GEF financing and from co-financing donors.

Project Component	Baseline	Alternate	Increment (including co-financing)
Component 1: Development of the <i>LADA</i> approach: land degradation assessment guidelines, network and information system	7 500 000	9 880 000	2 380 000
Component 2: Carrying out global and regional land degradation assessments	200 000 000	203 120 000	3 120 000
Component 3: Carrying out local assessments in hot spots and bright spots in pilot countries	8 500 000	15 820 000	7 320 000
Component 4: Carrying out a major analysis and preparation of an strategy for global action	1 000 000	2 340 000	1 340 000
Project Management and Administration	0	820 000	820 000
<b>Costs</b>	<b>US\$217 000 000</b>	<b>US\$231 980 000</b>	<b>US\$14 980 000</b>

50. The baseline for *LADA* consists dominantly (92 percent) of global and multi-national assessment initiatives in Component 2, such as remote sensing and satellite projects, UNEP's global LANDSAT data set, the pan-European Corine land cover assessment and the Africover database. There have also been some local and national assessment initiatives to contribute to the baseline for Component 3 (4 percent of baseline), some of them as part of much larger development projects such as the US\$76 million China-Gansu-Xinjiang Pastoral Development project and Argentina's US\$36.4 million *Programa de Desarrollo Rural de las Provincias del Noroeste*. Methodology development (Component 1 – 3.5 percent of baseline) features in many projects at both global and national scales, but in a rather fragmented way, underlining the need for *LADA* to extract best-practice methodological guidance while at the same time building an innovative multi-scale approach to land degradation assessment. Reports on previous and current methodologies (see [Annex G](#)) stress how urgently an agreed, tested and validated methodology is needed. Component 4, capacity-building, has not featured prominently in past and current assessment projects, and hence the baseline is a relatively modest estimated US\$1 million. Global assessment initiatives have tended to be undertaken by developed country institutions with comparatively little reference to developing country partners. Local assessments have been conducted piecemeal, with little attention to building a sustainable competence in host countries.

The calculations for the baseline are based upon estimated proportions of projects that have been devoted to *LADA* component themes with a particular focus on land degradation-ecosystem linkages. [Annex A](#) lists the main projects included under the baseline.

<b>Project Component</b>	<b>GEF funding</b>	<b>Co-financing</b>	<b>Total</b>
<b>Component 1:</b> Development of the LADA approach: land degradation assessment guidelines, network and information system	450 000	300 000 (FAO) 1 380 000(Part.Ctrs) 250 000 (UNEP)	<b>2 380 000</b>
<b>Component 2:</b> Carrying out global and regional land degradation assessments	1 700 000	200 000 (FAO) 300 000(ISRIC) 200 000(GLCN) 720 000 (UNEP)	<b>3 120 000</b>
<b>Component 3:</b> Carrying out local assessments in hot spots and bright spots in pilot countries	3 740 000	900 000 (FAO) 140 000(UN-UNU) 88 000 (WOCAT) 1 724 000(Part.Ctrs) 728 000(UNEP)	<b>7 320 000</b>
<b>Component 4:</b> Carrying out a major analysis and preparation of an strategy for global action	690 000	200 000 (FAO) 48 000(ISRIC) 350 000 (Part.Ctrs) 72 000 (UNEP)	<b>1 340 000</b>
Project management and administration	420 000	400 000 (FAO)	<b>820 000</b>
<b>Total</b>	<b>7 000 000</b>	<b>7 980 000</b>	<b>14 980 000</b>

51. GEF funding will be 53 percent devoted to Component 3, local assessments, on the grounds that local assessments are the main means to derive lasting global benefits for dryland ecosystems through the identification of ‘hot spots’ for land degradation and the channelling of resources for land degradation control. As GEF-financed projects such as *PLEC* have demonstrated, areas of land use especially in dry marginal zones not only have high intrinsic and natural biodiversity but also agricultural biodiversity in terms of managed species, genotypes and varieties. If land degradation is controlled at local level in these high-risk areas, this has the primary environmental benefit of securing important global ecosystems. Twenty-four percent of GEF-funding will be devoted to Component 2 for global assessments, while significantly less is allocated to the other components including management on the grounds that the activities that support these Outcomes have a stronger developmental role.

## **X. PROJECT EXECUTION, PERFORMANCE AND DISSEMINATION**

(See [Annex H](#) for a detailed Monitoring and Evaluation Plan.)

52. **Project execution:** The management and supervision of project activities will be monitored by the FAO *LADA* Task Force at global and generic levels, and by national Task Forces in the participating countries. Internal monitoring will aim to assist all project participants to assess their performance and impact, with the view to ensuring a directed addressing of the Projects Outcomes and Purposes.

53. **Project performance:** Internal evaluation by the Task Force, Steering Committee and Scientific Committee will assess the delivery of Logframe Outcomes. Annual internal evaluation will be mobilised by the Project Manager in close consultation with UNEP. Independent mid-term evaluation and final evaluations will be conducted which will be undertaken by consultants commissioned by the IA. These evaluations will be informed by annual technical reviews.

54. **Impact evaluation:** one of the primary purposes of *LADA* is to engage with policy at all levels and to change the way that land degradation assessments are used to guide implementation of sustainable land management. It is, therefore, proposed that the Scientific Committee will commission impact studies at national and global levels to investigate the degree to which *LADA* products and information are being used and integrated in decision-making processes. Key indicators will be: (1) the range of stakeholder involvement; (2) the uptake of *LADA* products, processes and procedures; and (3) the introduction into policy and practice of land degradation assessment and analysis. Ultimately, impact evaluation will seek to assess the degree to which processes such as soil erosion and vegetation destruction of drylands have been controlled through a better engagement with the base of information provided by *LADA*. It is acknowledged that this impact may well only become effective well after the project life-time.

## **XI. FINANCIAL MODALITY AND COST EFFECTIVENESS**

55. Co-financing has been secured from a number of sources, including international donors, the governments of participating institutions, on-going projects requiring land degradation assessment, and other donors.

56. The baseline for the project is substantial because of the large resources already devoted to soil and water conservation, control of desertification, management of drylands, protection of biodiversity and other actions related to land degradation on areas of land use. In the six countries constituting the regional nodes, baseline efforts are estimated at substantially in excess of US\$200 million. The investments are, however, unevenly distributed between countries and within countries. In Africa particularly, baseline efforts have not been so substantial. Nevertheless, the large size of the baseline means that GEF financing will be most cost effective, both generically and globally as well as nationally. Not only will demands for *LADA* products be great but also the coordination, continuation and sustainability of *LADA* guidelines and processes be assured. The GEF funding is acting as a regional catalyst through the six regional node countries, which will ensure up-take to nearby countries and promotion of the integration of sustainable land management practices into management plans from the local to the sub-regional level. The UNCCD process of NAPs, RAPs and SRAPs will be employed to make up-scaling effective and efficient.

## **XII. INSTITUTIONAL FRAMEWORK AND EVALUATION**

### **12.1 Institutional Framework**

57. FAO, as the Executing Agency, will be responsible for the implementation of the project in accordance with the objectives and activities outlined in Section 4 of this document. UNEP, as the GEF Implementing Agency, will be responsible for overall project supervision to ensure consistency with GEF and UNEP policies and procedures, and will provide guidance on linkages with related UNEP and GEF-funded activities. The UNEP/DGEF Coordination will monitor implementation of the activities undertaken during the execution of the project. The UNEP/DGEF Coordination will be responsible for clearance and transmission of financial and progress reports to the Global Environment Facility.

58 FAO, as executing agency, will cooperate with UNEP so as to allow the organization to fulfill its responsibility as Implementing Agency accountable to the GEF. To this end, free access to all relevant information will be provided by FAO. Project implementation arrangements are detailed in full in **Annex I**.

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## **12.2 Evaluation**

61. Every year, UNEP/DGEF Coordination will undertake a desk evaluation using the format given in ANNEX 7, to measure the degree to which the objectives of the project have been achieved. This will be in addition to the independent mid-term and final evaluations of the project per UNEP procedures, as well as supervision missions conducted by the UNEP Task Manager and/or UNEP Fund Management Officer. Given the tripartite nature of the project, the evaluations will be conducted in close consultation with the partners (beneficiary countries and FAO) so as to facilitate the ownership of the evaluation findings and recommendations. In this respect, UNEP will consult the partners on the timing of the evaluations, terms of reference and evaluation team composition for appropriate competencies and independence. FAO will also be given the opportunity to review and comment upon the findings of the evaluation.

## **XIII - MONITORING AND REPORTING**

### **13.1 Management Reports**

#### **13.1.1 Progress Reports**

62. Within 30 days of the end of the reporting period, FAO will submit to UNEP, with a copy to Division of GEF Coordination, using the format given in **Annex 5A**, half-yearly progress reports as at 30 June and 31 December.

63. The Inventory of Outputs/Services should be submitted with all Progress Reports and the Terminal Report. The report is due within 30 days of the end of each half-yearly period when submitted with a Progress Report or within 60 days of the completion of a project when submitted with a Terminal Report. The format of the report is given in **Annex 5B**.

#### **13.1.2 Terminal Reports**

64. Within 60 days of the completion of the project, FAO will submit to UNEP, with a copy to UNEP/DGEF Coordination, a Terminal Report detailing the activities taken under the project, lessons learned and any recommendations to improve the efficiency of similar activities in the future, using the format provided in **Annex 6**.

#### **13.1.3 Substantive Reports**

65.

- (i) At the appropriate time, FAO will submit to UNEP in draft any manuscript for publications and, at the same time, inform UNEP of plans for its publication. UNEP will give FAO substantive clearance of the manuscript, indicating any suggestions for change and such wording (recognition, disclaimer, etc.) as it would wish to see figure in the preliminary pages or in the introductory texts.
- (ii) It will equally consider the publishing proposal of FAO and will make comments thereon as advisable. It may request FAO to consider publication on a joint imprint basis. Should FAO be solely responsible for publishing arrangements, UNEP will, nevertheless, receive ten free copies of the published work in each of the agreed languages, for its own purposes.

### **13.2 Financial Reports**

66. FAO shall submit to UNEP quarterly project expenditure accounts and final accounts for each project, showing amount budgeted for the year, amount expended since the beginning of the year, and, separately, the unliquidated obligations as follows:

- (i) Details of project expenditures on an activity-by-activity basis, reported in line with project budget codes as set out in the project document, as at 31 March, 30 June, 30 September and 31 December each year, providing details of unliquidated obligations separately (see formats in **Annex 4A** and **Annex 4B**). The expenditure accounts will be dispatched to UNEP within 30 days after the end of the quarter to which they refer.
- (ii) The expenditure account as at 31 December is to be received by UNEP by 31 March each year.
- (iii) A final statement of account, in line with UNEP project budget codes, reflecting actual final expenditures under the project, when all obligations have been liquidated.

- (iv) Within 60 days of the reporting period, FAO shall submit to UNEP GEF Coordination Office, a yearly co-financing report for the project using the format provided in **Annex 1C** showing information FAO has received on:
- (a) Amount of cofinancing realized compared to the amount of cofinancing committed to at the time of project approval, and
  - (b) Cofinancing reporting by source and by type.
    - ◆ Sources include the agency's own cofinancing, government cofinance (counterpart commitments), and contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector, and beneficiaries.
    - ◆ Types of cofinance. Cash includes grants, loans, credits and equity investments. In-kind resources are required to be:
      - dedicated uniquely to the GEF project,
      - valued as the lesser of the cost and the market value of the required inputs they provide for the project, and
      - monitored with documentation available for any evaluation or project audit undertaken by FAO.

67. With regard to reporting on co-financing provided by government and other institutions, FAO will encourage the partners to provide the information in a timely manner and will transmit such information to UNEP as received and without certification.

### **13.3 Terms and Conditions**

#### **13.3.1 Non expendable equipment**

68. FAO will maintain records of non-expendable equipment (items costing US\$1 500 or more as well as attractive items such as pocket calculators, cameras, computers, printers, etc.) purchased with UNEP funds (or with trust funds or counterpart funds administered by UNEP). FAO will submit an inventory of such equipment to UNEP, indicating description, serial no. (where applicable), date of purchase, original cost, condition, location of each item attached to the half yearly progress reports, including all the information shown in **Annex 5C**.

69. Within 60 days of completion of the project, FAO will submit to UNEP a final inventory of all non-expendable equipment purchased under the project indicating description, serial number (where applicable), original cost, condition, location and a proposal for the disposal of the said equipment. Non-expendable equipment purchased with funds administered by UNEP remains the property of UNEP until its disposal is authorized by UNEP, in consultation with FAO. The proceeds from the sale of equipment (duly authorized by UNEP) shall be credited to the accounts of UNEP, or to the appropriate trust fund or counterpart fund.

#### **13.3.2 Responsibility for Cost Overruns**

70. FAO is authorized to enter into commitments or incur expenditures up to a maximum of 20 percent over and above the annual amount foreseen in the project budget under any budget sub-line, provided the total cost of the UNEP annual contribution is not exceeded. This may be done without prior authorization, but once the need for these additional funds becomes apparent, a revised budget request should be submitted to UNEP immediately. Cost overruns are the responsibility of FAO unless a revised budget has been agreed with UNEP.

71. Any cost overrun (expenditure in excess of the budgeted amount) on a specific budget sub-line over and above the 20 percent flexibility mentioned above should be met by FAO, which originally assumed responsibility for authorizing the expenditure, unless a revision has been agreed to by UNEP prior to the authorization to cover it. Savings in one budget sub-line may not be applied to overruns of 20 percent in other sub-lines, even if the total cost to UNEP remains unchanged, unless this is specifically authorized by UNEP upon presentation of the request. In such a case, a revision to the project document amending the budget will be issued by UNEP.

### **13.3.3 Claims by Third Parties against UNEP**

72. UNEP does not accept any responsibility for the handling of claims which may be brought by third parties against UNEP and its staff. UNEP and its staff shall not be liable in case of any claims or liabilities resulting from operations carried out by FAO under this project document.

### **13.3.4 Cash Advance Requirements**

73. An initial cash advance of US\$1 750 000 will be made upon signature of the project document by both parties and will cover expenditures expected to be incurred by FAO during the first six months of the project implementation. Subsequent advances are to be made quarterly, subject to:

- (i) Confirmation by FAO at least two weeks before the payment is due, that the expected rate of expenditure and actual cash position necessitate the payment, including a reasonable amount to cover "lead time" for the next remittance; (see format of request in **Annex 3**) and
- (ii) The presentation of:
  - a satisfactory financial report showing expenditures incurred for the past quarter, (see format in ANNEX 4A) under each project activity and
  - timely and satisfactory progress reports on project implementation.

### **13.3.5 Publications**

74. For publications issued with FAO, both the cover and the title page of the publication will carry the logo of UNEP and the title United Nations Environment Programme together with that of FAO. FAO will submit three copies of any manuscript prepared under the project for clearance prior to their publication in final form. UNEP's views on the publication and any suggestions for amendments of wording will be conveyed expeditiously to the agency, with an indication of any disclaimer or recognition which UNEP might wish to see appear in the publication.

### **13.3.6 Amendments**

75. The Parties to this project document shall approve any modification or change to this project document in writing.

#### **XIV. LIST OF UNEP REPORTING ANNEXES**

- ANNEX 1:**   **A:    Budget in UNEP Format**  
              **B:    Budget by Project Component Activity**  
              **C:    UNEP/GEF Report on Planned Project Cofinance and Actual Cofinance Received**
- ANNEX 2:**   **A:    Items to be financed by the project**  
              **B:    Timetable and Workplan**
- ANNEX 3:**   **Format for Cash Advance Statement**
- ANNEX 4:**   **A:    Format for Quarterly Project Expenditure**  
              **B:    Format of Quarterly Reporting on Unliquidated Obligations**
- ANNEX 5:**   **A:    Format for Half-yearly Progress Report to UNEP**  
              **B:    Format for Inventory of Outputs/Services**  
              **C:    Format for Inventory of Non-Expendable Equipment**

## **XV. LIST OF OTHER ANNEXES**

**ANNEX A. INCREMENTAL COST**

**ANNEX B. LOGICAL FRAMEWORK**

**ANNEX C. STAP ROSTER TECHNICAL REVIEW**

**ANNEX C1. RESPONSE TO STAP/IA COMMENTS**

**ANNEX D. PROJECT WORKPLAN, TIMEFRAME AND BUDGET**

This Annex shows the timing and completion of detailed proposed Activities to achieve the Project Outcomes

**ANNEX E. PUBLIC INVOLVEMENT PLAN**

The Annex provides a description of all identified Stakeholders in *LADA* to date from:

- executing agencies and advisory committees
- country executing teams
- identified in-country expertise in different disciplines
- capacities of participating scientists
- NGOs, national government agencies, local government
- Stakeholder support via endorsement of involvement
- Linkages with other projects

**ANNEX F. AVAILABLE REFERENCE DOCUMENTS AND OUTPUTS FROM PDF-B**

The Annex lists the documents. Websites and other media outputs from the PDF-B phase, all of which will be used as a platform for the full project.

**ANNEX G. SUMMARY OF PROGRESS ON LADA GUIDELINES, METHODOLOGY DEVELOPMENT, CASE STUDIES & GLOBAL ASSESSMENT**

*LADA* made considerable progress during the PDF-B stage toward guidelines, methodology development, case studies in pilot countries, and the development of a global assessment process. The Annex summarises progress and sets out the next steps for achievement in the full project

**ANNEX H. MONITORING AND EVALUATION PLAN**

This Annex describes the basis for evaluation of *LADA*, lists the indicators of project performance and tabulates the reporting formats, content and responsibility.

**ANNEX I. PRINCIPAL CONTRACTED PERSONNEL, INSTITUTIONAL ARRANGEMENTS**

This Annex describes the functions of the project staff and country coordinators

**ANNEX 1A OVERALL BUDGET IN UNEP FORMAT**

			<b>GEF TRUST FUND BUDGET</b>				
			<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>TOTAL</b>
<b>10</b>	<b>PROJECT PERSONNEL COMPONENT</b>						
1100	<i>Project personnel costs</i>						
	1101	Project staff 1Project Technical Advisor (P3)	151,000	151,000	151,000	0	453,000
	1199	<i>Sub-total</i>	<i>151,000</i>	<i>151,000</i>	<i>151,000</i>	<i>0</i>	<i>453,000</i>
1200	<i>Consultants costs</i>						
	1201	Consultant 1 Synthesize Framework/Methodology TCDC	9,000				9,000
	1202	Consultant 2 Produce LADA Guidelines TCDC	6,000				6,000
	1203	Consultant 3 Int. Produce LADA Brochure	10,000				10,000
	1204	Consultant 4 Produce WS1 Proceedings TCDC	3,000				3,000
	1205	Consultant 5 Int. IT/DB (3pm) First user survey	30,000				30,000
	1206	Consultant National Web/Network design (18pm)	54,000				54,000
	1207	Consultant Int. Web/Network design (3pm)	30,000				30,000
	1208	Consultant Int. e-mail conf/second user survey		20,000			20,000
	1209	Consultant Int. Cons. Nat.Stratification design (GIS)	15,000				15,000
	1210	Consultant FAO global stratification (6pm)		30,000			30,000
	1211	Consultant Int. Integration Loc/Nat/Reg/Global (3pm)		30,000			30,000
	1212	Consultant Nat. Integration Loc/Nat/Reg/Global (20pm)		60,000			60,000
	1213	Consultant Editor GLADA WS &Proceedings (3pm) TCDC		9,000			9,000
	1214	Consultant Int. Global Databases collation (1.5pm)	15,000				15,000



	1215	Consultant Int. GLADA final Workshop report		20,000			20,000
	1216	Consultant Int. support to National task force (1.5pm)	15,000				15,000
	1217	Consultant support to local surveys (VSA/WOCAT/RRA)		40,000	40,000		80,000
	1218	Consultant National for local surveys		75,000	75,000		150,000
	1219	Consultant Int. Local workshops (6pm)			60,000		60,000
	1220	Consultant National Database Update				36,000	36,000
	1221	Consultant International Database update				30,000	30,000
	1222	Consultant Int. Policy Analysis (1pm)				10,000	10,000
	1223	Consultant National Best practices report				60,000	60,000
	1224	Consultant Editor Best practices Report TCDC				9,000	9,000
	1225	Consultant International Global Action Plan				50,000	50,000
	1226	FAO Technical Backstopping Missions/Support	17,685	17,685	17,685	17,685	70,740
	1299	<i>Sub-total</i>	204,685	301,685	192,685	212,685	911,740
1300	<i>Administrative support costs</i>						
	1301	Project support staff 1 Secretary/Budget manager (part time)	23,648	23,648	23,648	23,648	94,592
	1302	Project support staff 2					0
	1381	UNEP: Administrative assistance costs					0
	1399	<i>Sub-total</i>	23,648	23,648	23,648	23,648	94,592
1600	<i>Travel on official business costs</i>						
	1601	Travel on official business/Backstopping (FAO)	75,000	50,000	50,000	75,000	250,000
	1699	<i>Sub-total</i>	75,000	50,000	50,000	75,000	250,000
1999	<b>Component Total</b>		<b>454,333</b>	<b>526,333</b>	<b>417,333</b>	<b>311,333</b>	<b>1,709,332</b>
20	<b>SUB-CONTRACTS COMPONENT</b>						
2100	<i>Sub-contracts (MOUs/LAs) (IAs) costs</i>						
	2101	Sub-contract 1 DESERTLINK prototype	75,000				75,000
	2102	Sub-contract 2 MEDCOASTLAND Network	25,000				25,000

	2103	Subcontract 3 Pre-RSstudies China/Kenya(GLCN/ISRIC)	50,000				50,000
	2104	Sub-contract 4 GLADA NDVI+Soil Degr (ISRIC/CG)	250,000	160,000	182,675		592,675
	2105	Sub-contract 5 Socio-economic Stratification (FAO/IFPRI)	60,000	60,000			120,000
	2106	Sub-contract 6 GLADA Regional Afric/pilots(GLCN)		200,000			200,000
	2107	Subcontract 7 6 National studies for GLADA			287,143		287,143
	2108	Subcontract 8 Finalization GLADA (ISRIC/GLCN/FAO)			150,000		150,000
	2109	Subcontract 9 DPSIR modelling (VU A'dam)				100,000	100,000
	2199	<i>Sub-total</i>	460,000	420,000	619,818	100,000	1,599,818
2200	<i>Sub-contracts (MOUs/LAs) (SO) costs</i>						
	2201	Sub-contract 1 Pilot Country Stratification (AEZ/GIS)		60,000			60,000
	2202	Sub-contract 2 Stocktaking report Cuba/Tunisia	20,000				20,000
	2203	Sub-contract 3 Incorporate LD documents/maps pilot country		60,000			60,000
	2204	Support to Regional Networks		5,000	5,000		10,000
	2205	Subcontract 4 Establish regional training Centres in pilot ct.		300,000			300,000
	2206	Subcontract 5 Local Surveys		465,000	465,000		930,000
	2207	Subcontract 6 Policy Analysis				90,000	90,000
	2208	Subcontract 7 DPSIR Framework tested with country data				60,000	60,000
	2209	Subcontract 8 Natioanl Policy/Resource Mobilisation				50,000	50,000
	2299	<i>Sub-total</i>	20,000	890,000	470,000	200,000	1,580,000
2300	<i>Sub-contracts (Commercial) costs</i>						
	2301	Sub-contract 1					0
	2302	Sub-contract 2					0
	2303	Sub-contract 3					0

	2399	<i>Sub-total</i>	0	0	0	0	0
<b>2999</b>	<b>Component Total</b>		<b>480,000</b>	<b>1,310,000</b>	<b>1,089,818</b>	<b>300,000</b>	<b>3,179,818</b>
<b>30</b>	<b>TRAINING/MEETINGS COMPONENT</b>						
3100	<i>Fellowships</i>						
	3101	Fellowship 1 Training Univ. East Anglia (in country or UK)	230,185				230,185
	3102	Fellowship 2 WOCAT Training & Visual Soil Assessment	149,400				149,400
	3103	Fellowship 3					0
	3199	<i>Sub-total</i>	<i>379,585</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>379,585</i>
3200	<i>Group Training</i>						
	3201	Group training 1 Training on Network/DESERTLINK	30,000				30,000
	3202	Group training 2 Training GLADA/National (6pm)			60,000		60,000
	3203	Group training 3					0
	3299	<i>Sub-total</i>	<i>30,000</i>	<i>0</i>	<i>60,000</i>	<i>0</i>	<i>90,000</i>
3300	<i>Meetings/Conferences costs</i>						
	3301	Meeting 1: FAO/UNEP Launch (G)LADA	60,000				60,000
	3302	Meeting 2 FAO Workshop on Web/Network System design	50,000				50,000
	3303	Meeting 3 Interim GLADA workshop (regions invited)		180,000			180,000
	3304	Meeting 4GLADA final workshop			50,000		50,000
	3305	Meeting 5 National LADA Stakeholders workshops	105,000				105,000
	3306	Meeting 6 Six local workshops			210,000		210,000
	3307	Meeting 7 Final LADA Steering Committee meeting				50,000	50,000
	3399	<i>Sub-total</i>	<i>215,000</i>	<i>180,000</i>	<i>260,000</i>	<i>50,000</i>	<i>705,000</i>
<b>3999</b>	<b>Component Total</b>		<b>624,585</b>	<b>180,000</b>	<b>320,000</b>	<b>50,000</b>	<b>1,174,585</b>
<b>40</b>	<b>EQUIPMENT AND PREMISES COMPONENT</b>						
4100	<i>Expendables costs</i>						

	4101						84,000
	4102	Expendables 2 GPS & other analytical materials	30,000				30,000
	4103	Expendables 3					0
	4199	<i>Sub-total</i>	114,000	0	0	0	114,000
4200	<i>Non-expendable equipment costs</i>						
	4201	Non-expendables 1					0
	4202	Non-expendables 2					0
	4203	Non-expendables 3					0
	4299	<i>Sub-total</i>	0	0	0	0	0
4300	<i>Premises costs</i>						
	4301	Premises 1					0
	4302	Premises 2					0
	4303	Premises 3					0
	4399	<i>Sub-total</i>	0	0	0	0	0
<b>4999</b>	<b>Component Total</b>		<b>114,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>114,000</b>
<b>50</b>	<b>MISCELLANEOUS COMPONENT</b>						
5100	<i>Operation and maintenance of equipment</i>						
	5101	O & M 1					0
	5102	O & M 2					0
	5103	O & M 3					0
	5199	<i>Sub-total</i>	0	0	0	0	0
5200	<i>Reporting costs</i>						
	5201	Reporting 1 Consolidated Guidelines (translation 4 lang)	30,000				30,000
	5202	Reporting 2 Workshop 1 Proceedings	5,000				5,000
	5203	Reporting 3 LADA Brochure (including translations 4 lang)	30,000				30,000
	5204	Reporting 4 WOCAT Guidelines	10,000				10,000
	5205	Reporting 5 Six national reports on provisional results		30,900			30,900

	5206	Reporting 6 GLADA Workshop Interim report/CD ROM		10,000			10,000
	5207	Reporting 7 GLADA/LADA final report and CD ROM			40,000		40,000
	5208	Reporting 8 National Policy Analysis (6 reports)				30,000	30,000
	5299	<i>Sub-total</i>	75,000	40,900	40,000	30,000	185,900
5300		<i>Sundry costs</i>					
	5301	Communication					0
	5302	Postage					0
	5303	Freight					0
	5304	FAO Coordination cost	174,792	205,723	186,715	69,133	636,363
	5399	<i>Sub-total</i>	174,792	205,723	186,715	69,133	636,363
5400		<i>Hospitality costs</i>					
	5401	Hospitality 1					0
	5499	<i>Sub-total</i>	0	0	0	0	0
5500		<i>Evaluation costs</i>					0
	5501	Evaluation 1					0
	5502	Evaluation 2					0
	5503	Evaluation 3					0
	5599	<i>Sub-total</i>	0	0	0	0	0
5999		<b>Component Total</b>	<b>249,792</b>	<b>246,623</b>	<b>226,715</b>	<b>99,133</b>	<b>822,263</b>
99		<b>GRAND TOTAL</b>	<b>1,922,710</b>	<b>2,262,956</b>	<b>2,053,866</b>	<b>760,466</b>	<b>6,999,998</b>

## ANNEX 1B - BUDGET IN FAO FORMAT

OracleCode	UNEP Code	Description (ORACLE)	Unit	Q.ty	Unit Price	US\$	Euro	CHF
5011	10	<b>SALARIES PROFESSIONAL</b>				453,000	374,380	588,900
5300	1101	Salaries professional-budget (P3)	person/3years	1		453,000	374,380	588,900
5012		<b>SALARIES GENERAL SERVICE</b>				94,593	78,176	122,971
5500	1301	Salaries general service-budget (G3 part-time)	person/4years	1		94,593	78,176	122970.8
5013	1200	<b>CONSULTANTS</b>				1,026,900	782,562	1,230,970
5650	1299	Consultants-budget				1,026,900	782,562	1,230,970
		<i>International Consultants-total</i>				570,000	404,959	637,000
5542	1203	Consultant 3 Int. Produce LADA Brochure	Lumpsum	1		10,000	8,264	13000
5542	1205	Consultant 5 Int. IT/DB (3pm) First user survey	p/month	1		30,000	24,793	39000
5542	1207	Consultant Int. Web/Network design (3pm)	p/month	1		30,000	24,793	39000
5542	1208	Consultant Int. e-mail conf/second user survey	Lumpsum	1		20,000	16,529	26000
5542	1209	Consultant Int. Cons. Nat.Stratification design (GIS)	Lumpsum	1		15,000	12,397	19500
5542	1210	Consultant FAO global stratification (6pm)	p/month	1		30,000	24,793	39000
5542	1211	Consultant Int. Integration Loc/Nat/Reg/Global (3pm)	p/month	1		30,000	24,793	39000
5542	1214	Consultant Int. Global Databases collation (1.5pm)	p/month	1		15,000	12,397	19500
5542	1215	Consultant Int. GLADA final Workshop proceedings	Lumpsum	1		20,000	16,529	26000
5542	1216	Consultant Int. support to National task force (1.5pm)	p/month	1		15,000	12,397	19500
5542	1219	Consultant Int. Local workshops (6pm)	p/month	6	var	60,000	49,587	78000
5542	1221	Consultant International Database update	Lumpsum	1		30,000	24,793	39000
5542	1222	Consultant Int. Policy Analysis (1pm)	p/month	1		10,000	8,264	13000
5542	1225	Consultant International Global Action Plan	Lumpsum	1		50,000	41,322	65000
5542	5201	Consolidated Guidelines (translation 4 lang)	Lumpsum	4	var	30,000	24,793	39000
5542	5202	Workshop 1 Proceedings	Lumpsum	1		5,000	4,132	6500

5542	5203	LADA Brochure (including translations 4 lang)	Lumpsum	1		30,000	24,793	39000
5542	5204	WOCAT Guidelines	Lumpsum	1		10,000	8,264	13000
5542	5206	GLADA Workshop Interim report/CD ROM	Lumpsum	1		10,000	8,264	13000
5542	5207	GLADA final report and CD ROM	Lumpsum	1		40,000	33,058	52000
5542	1217	Consultant support to local surveys (VSA/WOCAT/RRR)	Lumpsum	4	20,000	80,000	66,116	104000
		<i>National Consultants- total</i>				<i>420,900</i>	<i>347,851</i>	<i>547,170</i>
5543	1206	Consultant National Web/Network design (18pm)	p/month	6	9,000	54,000	44,628	70200
5543	1212	Consultant Nat. Integration Loc/Nat/Reg/Global (20pm)	p/month	6	10,000	60,000	49,587	78000
5543	1218	Consultant National for local surveys	Lumpsum	6	var	150,000	123,967	195000
5543	1220	Consultant National Database Update	Lumpsum	6	var	36,000	29,752	46800
5543	1223	Consultant National Best practices report	Lumpsum	6	10,000	60,000	49,587	78000
5543	5205	Six national reports on provisional results	Lumpsum	6	5,150	30,900	25,537	40170
5543	5208	National Policy Analysis (6 reports)	Lumpsum	6	5,000	30,000	24,793	39000
		<i>PP TCDC/TCCT- total</i>				<i>36,000</i>	<i>29,752</i>	<i>46,800</i>
5544	1201	Consultant 1 Synthesize Framework/Methodology TCDC	p/month	1	3,000	9,000	7,438	11700
5544	1202	Consultant 2 Produce LADA Guidelines TCDC	p/month	1	3,000	6,000	4,959	7800
5544	1204	Consultant 4 Produce WS1 Proceedings TCDC	p/month	1	3,000	3,000	2,479	3900
5544	1213	Consultant Editor GLADA WS &Proceedings (3pm) TCDC	p/month	1	3,000	9,000	7,438	11700
5544	1224	Consultant Editor Best practices Report TCDC	p/month	1	3,000	9,000	7,438	11700
<b>5021</b>	<b>1600</b>	<b>TRAVEL</b>				<b>814,000</b>	<b>672,727</b>	<b>1,058,200</b>
<b>5900</b>	<b>1699</b>	<b>Travel-duty budget</b>				<b>814,000</b>	<b>672,727</b>	<b>1,058,200</b>
5661	1601	Duty travel				250,000	206,612	325000
5684	3399(1)	Training	Lumpsum	6	var	564,000	466,116	733200
<b>5014</b>	<b>20</b>	<b>CONTRACTS</b>				<b>3,179,818</b>	<b>54,400</b>	<b>79,296</b>
<b>5650</b>	<b>2100</b> <b>2200</b>	<b>Contracts budget</b>				<b>3,179,818</b>	<b>2,627,949</b>	<b>4,133,763</b>
5571	2101	LADA prototype	Lumpsum	1		75,000	61,983	97500
5571	2102	LADA Network	Lumpsum	1		25,000	20,661	32500

5571	2103	Pre-RSstudies China/Kenya (GLCN+)	Lumpsum	1		50,000	41,322	65000
5571	2104	GLADA NDVI+Soil Degr (ISRIC/CG)	Lumpsum	6	var	592,675	489,814	770477.5
5571	2105	Socio-economic Stratification	Lumpsum	2	60,000	120,000	99,174	156000
5571	2106	GLADA Regional Afric/pilots(GLCN)	Lumpsum	2	100,000	200,000	165,289	260000
5571	2107	National studies for GLADA	Lumpsum	6	var	287,143	237,308	373285.9
5571	2108	Finalization GLADA (ISRIC, AGLL, SDRN)	Lumpsum	3	50,000	150,000	123,967	195000
5571	2109	DPSIR modelling	Lumpsum	1		100,000	82,645	130000
5571	2201	Pilot Country Stratification (AEZ/GIS)	Lumpsum	6	10,000	60,000	49,587	78000
5571	2202	Stocktaking report Cuba/Tunisia	Lumpsum	2	10,000	20,000	16,529	26000
5571	2203	Incorporate LD documents/maps pilot country	Lumpsum	6	10,000	60,000	49,587	78000
5571	2204	Support to Regional Networks	Lumpsum	1		10,000	8,264	13000
5902	2205	Regional training Centres in pilot ct.	Lumpsum	6	var	300,000	247,934	390000
5571	2206	Local Surveys (through several LOAs)	Lumpsum	6	var	930,000	768,595	1209000
5571	2207	Policy Analysis	Lumpsum	6	15,000	90,000	74,380	117000
5571	2208	DPSIR Framework tested with country data	Lumpsum	6	10,000	60,000	49,587	78000
5571	2209	National Policy/Resource Mobilisation	Lumpsum	6	var	50,000	41,322	65000
<b>5023</b>	<b>30</b>	<b>TRAINING</b>				<b>610,585</b>	<b>504,616</b>	<b>793,761</b>
<b>5920</b>	<b>3999</b>	<b>Training budget</b>				<b>610,585</b>	<b>504,616</b>	<b>793,761</b>
	<b>3199</b>	<i>Fellowships</i>				<i>379,585</i>	<i>313,707</i>	<i>493,461</i>
5902	3101	Fellowship 1 Training Univ. East Anglia (in country or UK)	Lumpsum	6	var	230,185	190,236	299240.5
5902	3102	Fellowship 2 WOCAT Training & Visual Soil Assessment	Lumpsum	6	var	149,400	123,471	194220
	<b>3299</b>	<i>Group training</i>				<i>90,000</i>	<i>74,380</i>	<i>117,000</i>
5905	3201	Group training 1 Training on Network/DESERTLINK	Lumpsum	3	10,000	30,000	24,793	39000
5905	3202	Group training 2 Training GLADA/National (6pm)	Lumpsum	6	10,000	60,000	49,587	78000
	<b>3300</b>	<i>Meetings/Conference costs</i>				<i>141,000</i>	<i>116,529</i>	<i>183,300</i>
5905	3399(2)	Group training- meetings	Lumpsum	6	var	141,000	116,529	183300
<b>5025</b>	<b>4100</b>	<b>NON-EXPENDABLE PROCUREMENT</b>				<b>114,000</b>	<b>94,215</b>	<b>148,200</b>
<b>6100</b>	<b>4199</b>	<b>Non-expendable procurement budget</b>				<b>114,000</b>	<b>94,215</b>	<b>148,200</b>



6003	4101	Computers and/or printers (local CB, 2 per national site)	Lumpsum	6	var	84,000	69,421	109200
6005	4102	Other data acquisition equipment (local CB)	Lumpsum	6	var	30,000	24,793	39000
<b>5027</b>		<b>TECHNICAL SUPPORT SERVICES</b>				<b>70,740</b>	<b>58,463</b>	<b>91,962</b>
6150	1226	Technical support services budget				70,740	58,463	91,962
6122		Standard Supervisory Technical Services (6 months)	p/month	1		70,740	58,463	91962
		<b>SUBTOTAL</b>				<b>6,363,636</b>	<b>5,248,345</b>	<b>8,094,545</b>
<b>5029</b>		<b>SUPPORT COSTS</b>						
6130		Support costs budget				636,364	525,920	827,273
6118		Direct Operating Cost ( 10 percent of budget)				636,364	525,920	827272.7
		<b>TOTAL</b>				<b>7,000,000</b>	<b>5,774,265</b>	<b>8,921,818</b>

Exchange rate US\$/Euro

1 US = Euro 0.826

Exchange rate US\$/CHF

1 US = CHF 1.300

var= variable (distribution depends on number of pilot sites and country size)

27/07/2005

(1) UNEP 3399- divided for travelling and meeting costs (here 80 percent)

(2) UNEP 3399- divided for travelling and meeting costs (here 20 percent)

**ANNEX 1C- UNEP/GEF REPORT ON PLANNED PROJECT CO-FINANCE AND ACTUAL CO-FINANCE RECEIVED**

<b>UNEP/GEF REPORT ON PLANNED PROJECT CO-FINANCE AND ACTUAL COFINANCE RECEIVED</b>							
<b>Title of Project:</b>	Land Degradation Assessment in Drylands						
<b>Project Number:</b>							éstos
<b>Name of Executing Agency:</b>	FAO						
<b>Project Duration:</b>	<b>From:</b>	December 2005		<b>To:</b>	December 2009		
<b>Reporting Period:</b>							
<b>Source of Cofinance</b>	<b>Cash Contributions</b>			<b>In-kind Contributions</b>			<b>Comments</b>
	Budget original	Budget latest revision	Received to date	Budget original	Budget latest revision	Received to date	
<b>National:</b>							
Argentina	132,000			730,000			
China				1,100,000			
Cuba				250,000			
Senegal				380,000			
South Africa				500,000			Official letter not received yet
Tunisia	92,000			462000			
<b>International:</b>							
FAO	200,000			1,800,000			
UNEP				1,675,000			
ISRIC				348, 000			
WOCAT				88, 000			
UNU	40,000			100, 000			

GLCN				200,000			
<b>Additional Cofinance:-</b>							
<b>Total</b>	464,000	0	0	7,633,000	0	0	
Name:	F. Nachtergaele						<b>All amounts in US dollars</b>
Position:	Technical Officer, FAO						
Date:	21/09/2005						

**ANNEX 2A ITEMS TO BE FINANCED BY THE PROJECT in cash**

**2A(1) ITEMS TO BE FINANCED BY THE PROJECT in cash**

<b>ACTIVITY</b>	<b>GEF US\$</b>	<b>FAO US\$</b>	<b>Argentina US\$</b>	<b>Tunisia US\$</b>	<b>UNU US\$</b>	<b>Total US\$</b>
<b>COORDINATION AND PROJECT MANAGEMENT</b>	500,296	0	0	0	0	500,296
<b>DEVELOPMENT OF THE LADA APPROACH: LAND DEGRADATION ASSESSMENT GUIDELINES, NETWORK AND INFORMATION SYSTEM</b>	732,900	0	94,000	54,000	0	880,900
<b>CARRYING OUT GLOBAL AND REGIONAL LAND DEGRADATION ASSESSMENTS</b>	1,914,558	100,000	0	0	0	2,014,558
<b>CARRYING OUT LOCAL ASSESSMENTS IN HOT SPOTS AND BRIGHT SPOTS IN PILOT COUNTRIES</b>	2,600,325	100,000	31,000	31,000	40,000	2,802,325
<b>CARRYING OUT A MAJOR ANALYSIS AND PREPARATION OF AN STRATEGY FOR GLOBAL ACTION</b>	568,260	0	7,000	7,000	0	582,260
<b>Administrative support</b>	636,364	0	0	0	0	636,364
<b>PROJECT TOTAL</b>	<b>7,000,000</b>	<b>200,000</b>	<b>132,000</b>	<b>92,000</b>	<b>40,000</b>	<b>7,464,000</b>

\* Ongoing Letters of Agreement with each partner.

**ANNEX 2A (2)**

**ITEMS TO BE FINANCED BY THE PROJECT in kind**

<b>Activities</b>	<b>FAO in kind</b>	<b>UNEP In kind</b>	<b>ISRIC In kind</b>	<b>GLCN In kind</b>	<b>China In kind</b>	<b>Cuba In kind</b>	<b>Senegal in kind</b>	<b>Tunisia In kind</b>	<b>South Africa in kind</b>	<b>Argentina in kind</b>	<b>WOCAT in kind</b>	<b>UNU in kind</b>
<b>COORDINATION AND PROJECT MANAGEMENT</b>	500,000	0	0	0	0	0	0	0	0	0	0	0
<b>DEVELOPMENT OF THE LADA APPROACH: LAND DEGRADATION ASSESSMENT GUIDELINES, NETWORK AND INFORMATION SYSTEM</b>	200,000	325,000	0	200,000	0	0	0	276,000	0	441,000	0	0
<b>CARRYING OUT GLOBAL AND REGIONAL LAND DEGRADATION ASSESSMENTS</b>	500,000	1,040,000	308,000	0	0	0	379,500	0	500,000	0	0	0
<b>CARRYING OUT LOCAL ASSESSMENTS IN HOT SPOTS AND BRIGHT SPOTS IN PILOT COUNTRIES</b>	300,000	210,000	0	0	1,100,000	250,000	0	135,000	0	236,000	88,000	100,000
<b>CARRYING OUT A MAJOR ANALYSIS AND PREPARATION OF AN STRATEGY FOR GLOBAL ACTION</b>	300,000	100,000	40,000	0	0	0	0	51,000	0	53,000	0	0
<b>Administrative support</b>	0	0	0	0	0	0	0	0	0	0	0	0
<b>PROJECT TOTAL (IN KIND)</b>	<b>1,800,000</b>	<b>1,675,000</b>	<b>348,000</b>	<b>200,000</b>	<b>1,100,000</b>	<b>250,000</b>	<b>379,500</b>	<b>462,000</b>	<b>500,000</b>	<b>730,000</b>	<b>88,000</b>	<b>100,000</b>

**ANNEX 2B: PRELIMINARY DRAFT TIMETABLE AND WORK-PLAN**

COMPONENT I: LADA APPROACH - Land Degradation Assessment Guidelines, Network and Baseline Information development		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48								
<b>.1 Preparatory phase</b>																																																									
.0	Set up of a management team	■																																																							
.1	Review of data sources, methods and frameworks	■	■	■																																																					
.2	First steering committee meeting back (back to back technical workshops on II (Glada) and III (local) assessments				■																																																				
.3	Publications				■	■	■																																																		
.2	Development of an integrated land degradation information system at national and central level	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■																																		
.3	Preparatory stratification exercise with national hot spot analysis and network and information system completion	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■																																		
.4	Development and dissemination of guidelines for an enhanced need-based and process-driven approach to dryland degradation																							■	■	■	■	■	■																												
<b>COMPONENT II: Global and Regional LADA approach (GLADA)</b>		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48								
.1	Collation background material for international workshop: data and approaches	■	■	■																																																					
.2	International workshop (parallel/back to back with steering committee workshop LADA)				■																																																				
.3	Global and regional Land degradation studies at low resolution	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
.1	Pilote remote sensing projects case studies	■	■	■																																																					
.2	Global Land Degradation study		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
.3	A study on socio-economic drivers of land degradation at regional and national level			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
.4	National/Regional LADA studies at higher resolution preferably 1 kmx1 km or 5 x 5 min. (if 1 Km not feasible) including training and integration with hotspot results 1.5 above												■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
.5	Checking GLADA results in 6 pilot countries national level results plus preliminary results of local studies incorporated																							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
.6	Interim workshop to get feedback on GLADA and Regional GLADA and integration of this feedback in regional databases																							■	■																																
.7	Preparation final GLADA report																																																								
.8	International final GLADA workshop																																																								





**ANNEX 3 FORMAT FOR CASH ADVANCE STATEMENT**

Statement of cash advance as at .....  
 And cash requirements for the quarter of .....

Name of Cooperating agency/ Supporting organization \_\_\_\_\_  
 Project No. \_\_\_\_\_  
 Project title \_\_\_\_\_

**I. Cash statement**

1. Opening cash balance as at ..... US\$ \_\_\_\_\_  
 2. Add: cash advances received:

<b>Date</b>	<b>Amount</b>
.....	.....
.....	.....
.....	.....
.....	.....

3. Total cash advanced to date US\$ \_\_\_\_\_  
 4. Less: total cumulative expenditures incurred US\$ (\_\_\_\_\_)  
 5. Closing cash balance as at ..... US\$ \_\_\_\_\_

**II. Cash requirements forecast**

6. Estimated disbursements for quarter ending ..... US\$ \_\_\_\_\_  
 7. Less: closing cash balance (see item 5, above) US\$ (\_\_\_\_\_)  
 8. Total cash requirements for the ..... quarter ..... US\$ \_\_\_\_\_

Prepared by \_\_\_\_\_ Request approved by \_\_\_\_\_  
 Duly authorized official of Cooperating agency/  
 Supporting organization

**ANNEX 4A FORMAT OF QUARTERLY PROJECT EXPENDITURE ACCOUNTS FOR COOPERATING AGENCIES**

Quarterly project statement of allocation (budget), expenditure and balance (Expressed in US\$) covering the period.....to. ....

**Project No.** .....

**Agency Name** .....

**Project title:** .....

**Project commencing:** .....(date)

**Project ending:** .....(date)

Object of expenditure by UNEP budget Code	Project budget allocation for year.....		Total expenditure for quarter .....	Total unliquidated obligations* .....	Cumulative expenditure for year .....	Unspent balance of budget allocation for year. ....	
	m/m (1)	Amount (2)	(3)	(4)	m/m (5)	m/m (6)	Amount (2)-(5)
1100 Project Personnel							
1200 Consultants							
1300 Administrative support							
1400 Volunteers							
1600 Travel							
2100,2200,2300 Sub-contracts							
3100 Fellowships							
3200 Group Training							
3300 Meetings/conferences							
4100 Expendable equipment							
4200 Non-expendable equipment							
4300 Premises(rent)							
5100 Operation/maintenance of equipment							
5200 Reporting cost							
5300 Sundry							
5400 Hospitality and entertainment							
<b>99 GRAND TOTAL</b>							

\*See breakdown of unliquidated obligations, by object of expenditure attached as **ANNEX 4B**

Signed: \_\_\_\_\_

\_\_\_\_\_  
Duly authorized official

**NB: The expenditure should be reported in line with the specific object of expenditures as per project budget**

**ANNEX 4B FORMAT OF QUARTERLY FINANCIAL STATEMENTS REPORTING UNLIQUIDATED OBLIGATIONS**

**Project No.** \_\_\_\_\_

**Agency Name:** \_\_\_\_\_

Unliquidated obligations during \_\_\_\_\_  
(period covered)

Expressed in US\$

	1100	1200	1300	1400	1600	2100	2200	2300	3100	3200	3300	4100	4200	4300	5100	5200	5300	5400	Total	
																				99
<b>TOTAL</b>																				

**NB: The unliquidated obligations should be reported in line with the specific object of expenditures as per project budget**

## ANNEX 5A FORMAT FOR HALF YEARLY PROGRESS REPORT TO UNEP

As at 30 June and 31 December

(Please attach a current Inventory of Outputs/Services and  
Inventory of Non-Expendable Equipment when submitting this report)

### **1. Background Information**

**1.1 Project Number:**

**1.2 Project Title:**

**1.3 Division/Unit:**

**1.4 Coordinating Agency or Supporting Organization (if relevant):**

**1.5 Reporting Period (the six months covered by this report):**

**1.6 Relevant UNEP Programme of Work (2002-2003) Subprogramme No:**

**1.7 Staffing Details of Cooperating Agency/ Supporting Organization (Applies to personnel / experts/ consultants paid by the project budget):**

Functional Title	Nationality	Object of Expenditure (1101, 1102, 1201, 1301 etc..)

**1.8 Sub-Contracts (if relevant):**

Name and Address of the Sub-Contractee	Object of Expenditure (2101, 2201, 2301 etc..)

### **2. Project Status**

**2.1 Information on the delivery of outputs/services**

	<b>Output/Service (as listed in the approved project document)</b>	<b>Status (Complete/ Ongoing)</b>	<b>Description of work undertaken during the reporting period</b>	<b>Description of problems encountered; Issues that need to be addressed; Decisions/Actions to be taken</b>
1.				
2.				
3.				

**2.2 If the project is not on track, provide reasons and details of remedial action to be taken:**

**3. Discussion acknowledgment (To be completed by UNEP)**

<b>Project Coordinator's General Comments/Observations</b>	<b>First Supervising Officer's General Comments</b>
Name:	Name:

Date: _____ Signature: _____ _____	Date: _____ Signature: _____ _____
--	--

**ANNEX 5B ATTACHMENT TO HALF-YEARLY PROGRESS REPORT: FORMAT FOR INVENTORY OF OUTPUTS/SERVICES**

**a) Meetings (UNEP-convened meetings only)**

No	Meeting Type (note 4)	Title	Venue	Dates	Convened by	Organized by	# of Participants	List attached Yes/No	Report issued as doc no	Language	Dated
1.											
2.											
3.											

**List of Meeting Participants**

No.	Name of the Participants	Nationality
1.		
2.		

**b) Printed Materials**

No	Type (note 5)	Title	Author(s)/Editor(s)	Publisher	Symbol	Publication Date	Distribution List Attached Yes/No
1.							
2.							
3.							

**c) Technical Information / Public Information**

No	Description	Date
1.		
2.		
3.		

**d) Technical Cooperation**

No	Type (note 6)	Purpose	Venue	Duration	For Grants and Fellowships		
					Beneficiaries	Countries/Nationalities	Cost (in US\$)
1.							
2.							

**e) Other Outputs/Services (e.g. Networking, Query-response, Participation in meetings etc.)**

No	Description	Date
1.		
2.		
3.		

Note 4

Meeting types (Inter-governmental Meeting, Expert Group Meeting, Training Workshop/Seminar, Other)

Note 5

Material types (Report to Inter-governmental Meeting, Technical Publication, Technical Report, Other)

Note 6

Technical Cooperation Type (Grants and Fellowships, Advisory Services, Staff Mission, Others)



**ANNEX 5C ATTACHMENT TO HALF YEARLY PROGRESS REPORT: FORMAT OF INVENTORY OF NON-EXPENDABLE EQUIPMENT PURCHASED AGAINST UNEP PROJECTS**

UNIT VALUE US\$1,500 AND ABOVE AND ITEMS OF ATTRACTION

**Project title:**.....

**Implementing Agency** .....

**Internal/SO/CA (UNEP use only)**.....

**FPMO (UNEP use only)**.....

Asset Number	Description	Serial No.	Date of Purchase	Original Price, US\$	Condition	Location	Remarks Recommendation for disposal

The physical verification of the items(s) above was done by:

Name .....

(Duly authorized official)

Title: .....

Signature: .....

Date:.....

## ANNEX 6 FORMAT FOR TERMINAL REPORT

<b>1.</b>	<i>1. Background Information</i>
	<b>1.1 Project Number</b>
	<b>1.2 Project Title</b>
	<b>1.3 UNEP Division/Unit</b>
	<b>1.4 Implementing Organization</b>
<b>2.</b>	<i>2. Project Implementation Details</i>
	<b>2.1 Project Needs and Results (Re-State the needs and results of the project)</b>
	<b>2.2 Project Activities (Describe the activities actually undertaken under the project, giving reasons why some activities were not undertaken, if any)</b>
	<b>2.3 Project Outputs (Compare the outputs generated with the ones listed in the project document)</b>
	<b>2.4 Use of Outputs (State the use made of the outputs)</b>
	<b>2.5 Degree of achievement of the objectives/results (<i>On the basis of facts obtained during the follow-up phase, describe how the project document outputs and their use were or were not instrumental in realizing the objectives / results of the project</i>)</b>
	<b>2.6 Determine the degree to which project contributes to the advancement of women in Environmental Management and describe gender sensitive activities carried out by the project.</b>
	<b>2.7 Describe how the project has assisted the partner in sustained activities after project completion.</b>
<b>3.</b>	<i>3. Conclusions</i>
	<b>3.1 Lessons Learned (Enumerate the lessons learned during the project's execution. Concentrate on the management of the project, including the principal factors which determined success or failure in meeting the objectives set down in the project document)</b>
	<b>3.2 Recommendations (Make recommendations to (a) Improve the effect and impact of similar projects in the future and (b) Indicate what further action might be needed to meet the project objectives / results)</b>

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**4.***4. Attachments*

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<b>4.1 Attach an inventory of all non-expendable equipment (value over US\$ 1,500) purchased under this project indicating Date of Purchase, Description, Serial Number, Quantity, Cost, Location and Present Condition, together with your proposal for the disposal of the said equipment</b>
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<b>4.2 Attach a final Inventory of all Outputs/Services produced through this project</b>
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## ANNEX 7 SELF-EVALUATION FACT SHEET FORMAT

(to be completed by UNEP Task Manager and approved by FAO)

1. **Project Title:**
2. **Project Number:** (include number of latest revision)
3. **UNEP Programme of Work Component Number: (3 digits), or Relevant UNEP Programme of Work (2002-2003) Subprogramme Number and Specific Objective Number**  
Include a statement of how effective the project has been in attaining this component/objective and its contribution to overall Subprogramme implementation.
4. **Performance Indicators:**  
UNEP Programme of Work: {State the relevant Performance Indicators (with the Quantity figure) from the Programme of Work, and compare against actual results}
5. **Scope:**
6. **Implementation:**
7. **Duration:**
  - (a) Initial {(as indicated in the original project document). List day/month/year of start and end of project. List project duration in terms of total months}.
  - (b) Actual {(as indicated in the latest project revision). List day/month/year of start and end of the project. List project duration in terms of total months}.
  - (c) Reasons for the variance {When there is a difference between the initial and actual duration, list the consecutive project revisions (number and date of approval), and summarize justification for each revision}.
  - (d) List day/month/year of start of current year Workplan.
  - (e) List day/month/year end of current Workplan.
8. **Cost:**
  - (a) Initial {(as indicated in the project document). List the total project cost (UNEP and "Others") and give breakdown by funding source. Give actual figures and contribution in terms of percentages}.
  - (b) Actual {(as indicated in the latest project revision). List the total project cost (UNEP and "Others" and give breakdown by funding source. Give actual figures and contribution in terms of percentages}.
  - (c) Reasons for the variance {(When there is a difference between the initial and actual cost, list the consecutive project revisions (number and date of approval) involved in amending the project costs. List any other reasons for discrepancy}.
  - (d) Relate expenditure to achievement of outputs (e.g. 100 percent expenditure and 82 percent output completion).
  - (e) Relate expenditure to achievement of outputs to date against overall project Workplan.
9. **Project status at the time of evaluation:**
10. **Needs:**
  - (a) Identified needs (as indicated in the original project document).
  - (b) Satisfied/realized needs (List needs fulfilled due to implementation of the project).

- 11. Results:**
- (a) Expected Results (as indicated in the original project document).
  - (b) Actual Results (indicate actual results achieved/attained from project implementation) during current year.
  - (c) Actual results to date against overall project work plan.
  - (d) Reasons for the variance (state the reasons for the difference between expected and actual results).
  - (e) State corrective action(s) to be taken.

- 12. Outputs:**
- (a) Expected Outputs (as indicated in the original project document).
  - (b) Actual Outputs (List actual outputs resulting from project implementation emphasizing activities undertaken during current year)
  - (c) Reasons for the variance (state reasons for the difference between expected and actual outputs) during current year.
  - (d) Actual outputs to date against overall project work plan.
  - (e) State corrective action(s) to be taken.

- 13. What are UNEP's substantive inputs to the project?**  
(Do not repeat UNEP's financial contribution).

- 14. What are the catalytic effects of the project on other agencies or governments?**
- (a) Intellectual:
  - (b) Financial

**15. On Gender - describe**

- (a) Project's contribution to the advancement of women with regard to their participation in ecosystem related provisions of Agenda 21, Chapter 24.
- (b) Sensitive activities carried out by the project, for example: level of participation in decision making process in the planning and development and implementation of the project and women's participation in capacity-building and awareness activities.

**16. On Sustainability**

Describe sustainability of the project in terms of: enabling environment (e.g. national or regional legislation and policies); institutional capacity (human resource and planning and management systems); and financial sustainability (reliability of funding sources).

**17. Describe the problems encountered during project implementation:**

<u>Problems:</u>	<u>Causes:</u>	<u>Consequences:</u>
(a) Substantial/Programmatic		
(b) Institutional		
(c) Financial		

**18. Lessons learned from the achievement and/or weaknesses of the project:**

**19. Further follow-up action required:**

- (a) Action Required:
- (b) Responsible unit(s):
- (c) Schedule:

**20. Evaluated by:**

Name and position of Evaluator:

\_\_\_\_\_

Date: \_\_\_\_\_

**Noted by:**

Cooperating Agency/Supporting Representative:

\_\_\_\_\_

Date: \_\_\_\_\_

**21. Approved by:**

Name of Programme Manager/Regional Director

\_\_\_\_\_

Date: \_\_\_\_\_

## **ANNEX A: INCREMENTAL COST**

### **BROAD DEVELOPMENT GOALS**

*LADA* will generate global, regional, national and local benefits. Global benefits will accrue to globally-significant ecosystems and hydrological basins. However, *LADA* has equally important developmental goals, which, taken from the relevant GEF Operational Programs, are to:

- sustainably use the biological resources of arid and semi-arid areas [OP1]
- integrate ecological, economic and social goals to achieve multiple and cross-cutting local, national and global benefits [OP12], and
- contribute to improving people's livelihoods and economic well-being [OP15].

The developmental goal of *LADA* may therefore be summarised as to improve the utilisation of biological and land resources for the benefit of both environmental sustainability and the well-being of the people who rely upon drylands for their livelihoods. The more specific developmental objective of the project is to provide the assessment strategies, tools and methods to undertake better identification of land degradation problems and impacts, and then to build the capacity to replicate these assessments to mitigate land degradation on a regional scale and establish sustainable land use and management practices. Countries and regions that engage fully with the *LADA* process should gain economically and socially through the protection of their biodiversity and land resources. The global community and its institutions will also be better equipped to allocate resources to critical areas of land degradation ('hot spots') and to learn from the lessons of areas where land degradation is effectively controlled ('bright spots').

### **BASELINE SCENARIO**

Two factors make the baseline scenario of *LADA* somewhat problematic to calculate. First, as with other global assessments such as the MA, the global scope of the project presents methodological difficulties for the baseline costs, which are normally calculated in a national context. Therefore, the baseline (and incremental) cost analysis follows the procedures used in previous global assessments supported by the GEF such as GIWA and MA. Global assessments of specific processes in land degradation, such as soil erosion, have been attempted and continue to be undertaken, but in a somewhat haphazard and inconsistent way. These are factored into the largest component of the baseline, which represents US\$200 million, or 92 percent of the total project baseline.

Secondly, there are a large number of projects that could have been included in the baseline on the grounds that they have some relevance to *LADA*'s global and local activities. These could have included the early soil degradation assessments conducted by FAO in the 1970s and published as the *Provisional Methodology for Soil Degradation Assessment*, along with mapping for North Africa and the near East at a scale of 1:5 million. Although that initiative had fundamental methodological flaws, *LADA* will build on some of the methodological experience gained then and in subsequent global and

multi-national assessments such as GLASOD and ASSOD.<sup>62</sup> In addition, there are many projects at national level that have assessment components, although the main thrust of the project is developmental. *LADA* has drawn on some of these contributions to method and the validation of their utility in real cases. However, as evidenced by their number, these and many other projects have largely failed to grasp the challenge of producing consistent and replicable methods that could be used for land degradation assessment and the analysis of its impact. Therefore, a fairly conservative estimate of the contribution of other projects has been retained for the baseline scenario.<sup>63</sup>

The baseline for the four components of *LADA* has therefore been constructed from an analysis of the more recent (past and current) influential projects and the proportions of their budgets that could be described as contributing to *LADA* objectives. The matrix presented at the end of this Annex summarises the basis of the calculations of baseline for each Component. Major past and current projects on which the global, national and capacity-building components of *LADA* are dependent are listed below.

#### **INTERNATIONAL AND GLOBAL (COMPONENT 2 PLUS PARTS OF 1 AND 4)**

The following international projects contribute proportionately to the relevant component baselines and are also included in the International Associated Financing total at Section 3 of front end of the Brief:

Global International Waters Assessment: US\$13 million

Global Biodiversity Assessment: US\$3 million

Global Forest Resources Assessment (FAO, 1992-1999): US\$16.5 million

World Overview of Conservation Approaches and Technologies (WOCAT):  
US\$2.25 million

The Millennium Ecosystem Assessment (UNEP): US\$20 million

Global Terrestrial Observation System (GTOS): US\$520 000 (over 5 years)

Global Land Cover Network: US\$1.174 million

Terrestrial Ecosystems Monitoring Sites (TEMS): US\$200 000 (over 5 years)

Asiacover (FAO): US\$360 000

Soils and Terrain Database (SOTER – ISRIC-FAO): US\$100 000

DeSurvey Project (EC – Euros 8 million, not included in costing)

(Remote sensing and satellite imagery projects (e.g. SPOT, NOAA, etc.):  
US\$700 million)<sup>64</sup>

UNEP's global LANDSAT data set: US\$21 million

Other projects (e.g. IAASTD, Network Survey, UNEP data sets etc.): estimated  
US\$17.5 million

Total Associated International projects: US\$95.6 million

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<sup>62</sup> See the *LADA*-commissioned report: Van Lynden, G.W.J. and Kuhlmann, T. 2002. *Review of Degradation Assessment Methods*. Wageningen: ISRIC, 52pp.

<sup>63</sup> The Millennium Ecosystem Assessment GEF Project Brief estimates that if all relevant initiatives were to be included for global assessments, a conservative estimate is that some US\$3 billion is spent annually on research or assessment work related to ecosystems. The same estimate could be put forward for land degradation, but is not considered appropriate or useful in this incremental costs analysis.

<sup>64</sup> This figure is not included in associated financing.



## **NATIONAL AND LOCAL (COMPONENT 3 PLUS PARTS OF 1 AND 4)**

The following national level projects contribute proportionately to the relevant component baselines and are included in the National Associated Financing total at Section 3 of the front end of the Brief.

China National Water and Soil Conservation Monitoring: US\$1.2 million

China Gansu-Xinjiang Pastoral Development Project: US\$76.7 million

The PRC-ADB-GEF Partnership on Land Degradation in Dryland Ecosystems  
US\$15 million

Projet de Gestion Intégrée des Ecosystèmes du Sénégal (PGIES): US\$7.919

Projet de Gestion Durable et participative des Energies traditionnelles et de Substitution  
(PROGEDE-Senegal) :US\$19.9 million

Projet Biodiversité Sénégal-Mauritanie: US\$12.760 million

Projet de Gestion des Ressources en Eau et de l'Environnement de la Vallée du Fleuve  
Sénégal: US\$7.625 million

Programme de Conservation des Eaux et des Sols dans les Gouvernorats de Kairouan,  
Siliana et Zaghouan. – Tunisia: US\$12.34 million

South Africa part of Desert Margins Programme (DMP): US\$1.607 million

ECI project: Land Degradation in the Karoo, South Africa: US\$40 000

Programa Nacional de Bosques Modelo- Argentina: US\$727 000

Programa de Desarrollo Rural de las Provincias del Noreste (PRODERNEA)  
US\$36.4 million

Projet Suivi-Evaluation du PAN-LCD en Tunisie

Projet Indicateurs de Suivi des Programmes d'Action de Lutte contre la Désertification  
en Méditerranée, Tunisie

Projet Life, Tunisie

Total Associated National projects: US\$192.218 million

## **BASELINE BY PROJECT COMPONENT**

**Component 1:** Development of the LADA approach: land degradation assessment guidelines, network and information system

A substantial body of past and current research underpins existing approaches and methods for land degradation assessment. However, they all have limitations that make them unable to be employed directly for *LADA*. They utilise a range of techniques such as Expert Opinion, Remote Sensing, Field Monitoring, Productivity Changes, Land Users' Opinion and Modelling, but with little cognisance of the fact that the specific technique itself can be influential in determining the result of the assessment. This applies especially to scale-dependency issues, where results from one scale cannot simply be scaled-up to larger areas without consideration of the processes of land degradation. They tend only to focus on one specific type of degradation, in particular soil erosion and soil salinity, and therefore cannot be applied more broadly to land degradation. With the exception of employing "Land Users Opinion" and "Productivity Changes", they have a biophysical bias and are inherently weak with regard to assessing socio-economic impacts as well as impacts on ecosystems and the global environment. Moreover, none of

the existing land degradation assessment methodologies have an explicit focus on drylands. Methods and approaches commonly employed and which have been reviewed in the *LADA* PDF-B phase include GLASOD, WOCAT, ASSOD, SOVEUR, SLM-IM, USLE, SLEMSA, EPIC, WEPP, EUROSEM, NUTMON and national assessments. The applicable baseline for these and other methods and approaches initiatives has been conservatively estimated at a minimum of US\$ 7.5 million. If the full historical cost of the projects that have been reviewed for this Component were to have been used, then the baseline could have been at least ten times more.

### **Component 2:** Carrying out global and regional land degradation assessments

This component focuses on regional and global assessments, and the baseline largely is comprised of the many remote sensing and satellite techniques and their prodigious outputs. A large number of remote sensing sensors are available today, including:

- low and medium resolution civilian optical satellites (e.g. NOAA, SPOT 4&5, MODIS);
- high resolution civilian optical data (e.g. LANDSAT, SPOT, LISS, IRSSS);
- very high resolution civilian optical data (e.g. KFA 1000, IKONOS, Quirkybird, HRS/SPOT);
- space-born radar data.

In addition, each sub-region of the world's drylands is well covered by specialized institutions that have a fairly well developed capacity for using remote sensing in a land degradation assessment. The regional node countries of *LADA* have been selected on this basis and they will use the capacity developed with these techniques and outputs to build a more consistent regional and global assessment. Assessments of land cover (e.g. Africover, Corine Land Cover) have been undertaken for specific regions and countries, but land cover has not been appropriately linked to land degradation or health of dryland ecosystems. Moreover, due to the lack of a standardised methodology, many of these assessments are not comparable and replicable and can not be used to develop a global overview of land degradation in drylands. If the baseline were to include the cost of satellites and related infrastructure, as well as the maintenance of all past and new ground stations and processing facilities, then several billion dollars would have to be included under this component. Therefore, only the parts of projects most relevant to this *LADA* project component have been factored into baseline cost, which is conservatively estimated at US\$200 million.

### **Component 3:** Carrying out local assessments in hot spots and bright spots in pilot countries

Existing work on biodiversity indicators for drylands (e.g. by the OECD) exhibits constraints in terms of indicators and monitoring methods and needs to be related to land use pressures and scale of analysis. This can be attributed to: a) scientific uncertainty and poor understanding of ecosystem processes and functions and the complexity of ecological systems; b) the wide range of policy-relevant issues that fall under the umbrella of biological diversity and of land degradation; c) the substantial variation in environmental and land use conditions among the different dryland ecosystems, coupled with high local heterogeneity; and d) the breadth of biodiversity and degradation attributes and the inherent risk of an over-complex, time consuming and costly assessment process. Local and national level assessments are not using a standardised

approach to dryland degradation assessment and are not adequately linked with policy and decision-making processes. The baseline cost has been assessed from current and immediate-past projects that have used land degradation assessment as part of their work programmes, the information for which has been provided by the six focal participating countries. Cost: US\$8.5 million

**Component 4:** Carrying out a major analysis and preparation of an strategy for global action

Existing regional centres with environmental assessment capacity play a role in disseminating environmental information and assessments through their networks. Their work has, however, been hampered because of the lack of accurate information on the status of the world's drylands. There are no co-ordinated efforts to develop guidelines for identification of root causes and impacts of dryland degradation and to improve linkages to decision-making processes. There are relatively underdeveloped links between the work of these centres and the policy process at global, regional and national levels. The baseline is an estimate of the current costs of the work of action promotion for land degradation and related environmental issues by existing regional centres. Cost: US\$1 million.

## **GLOBAL ENVIRONMENTAL OBJECTIVE**

The global environmental objective of *LADA* is the conservation and sustainable use of the essential and globally-important ecosystems and land resources in the world's drylands, consisting of all arid and semi-arid areas. This objective strongly and fundamentally crosscuts the catalyzation of adoption of comprehensive ecosystem management interventions, through the better application of land degradation information. It also crosscuts the mitigation of the causes and negative impacts of land degradation on the structure and functional integrity of ecosystems. The mutually supportive global environmental objectives of the project are an essential feature, on the grounds that dryland ecosystems cannot be protected without attention to ecosystem function and land degradation control. For areas of land use, the entry point has to be attention to land degradation, and without knowledge on the extent and impact of land degradation, biodiversity could not be protected.

## **DOMESTIC ENVIRONMENTAL OBJECTIVES**

Countries participating in *LADA* and undertaking national and local assessments will be better placed to address domestic environmental issues. They will be able to prioritise interventions to protect ecosystems and utilise the value of dryland species under threat. Subsistence agriculturists and pastoralist people are dependent on dryland biodiversity for their livelihoods, and dependent on the inherent quality of their soil and land resources. National institutions will be able better to support soil and water conservation services and agricultural extension with quality information on the threat posed by land degradation. They will be able to address issues of poverty of marginalised people's who mainly inhabit drylands and be able to provide services that support their livelihoods. Poverty and environmental degradation are now well-recognised as linked elements in

drylands. The entry point for addressing environmental degradation locally has often been found to be attention to issues such as access to markets, better utilisation of 'social capital' and the provision of support services.

## **GEF ALTERNATIVE**

Under the GEF alternative, the project will provide for substantially increased capability to protect the ecosystems of the world's drylands. This in turn provides for further global benefits in management of ecosystem services and the control of land degradation through more sustainable land management. The activities of the project will predominantly provide for global environmental benefits, but with some important national environmental and developmental benefits accrued.

## **GEF ALTERNATIVE BY PROJECT COMPONENT**

**Component 1:** Development of the LADA approach: land degradation assessment guidelines, network and information system

The project will develop an integrated assessment methodology for drylands that generates new and reliable data on drylands. *LADA*'s approach will build and further develop existing methods, drawing lessons from past projects that were reviewed during the PDF-B phase of the project. It will utilise wherever possible existing sources of information, but build these into a new framework approach that meets GEF requirements for global environmental benefits. The new approach will not only encompass the extent and severity of land degradation, but will also assess its impact on the environment, especially ecosystems, and on people and their livelihoods. It will include factors in the socio-economic impact of land degradation and the drivers, and it will assess the impact of dryland degradation on globally significant ecosystems.

**Component 2:** Carrying out global and regional land degradation assessments

One of the principal outputs of *LADA* will be the development of a standardised global assessment of land degradation in drylands, which includes the impacts on ecosystems and livelihoods that enables cross-regional comparisons. This has not been undertaken before and will have major benefits for the worldview of the extent of land degradation and consequent threats to the loss of biodiversity, but will also relate these to important developmental objectives for poor people and threatened livelihoods.

**Component 3:** Carrying out local assessments in hot spots and bright spots in pilot countries

Linkage of global with local impacts on globally-important threats to the environment is a principal feature of *LADA*. The project will build on the many local assessments that have been undertaken for various (mainly developmental) purposes, and will add information that will address global environmental issues. At the level of detailed assessments and analysis of land degradation, biodiversity indicators can be easily integrated into the *LADA* approach. Biodiversity, land degradation and social and economic conditions are inextricably linked. Thus, assessment of all of these dimensions will occur concurrently and at the same sites so that cause-effect relationships can be

identified. This approach will build a clearer picture of the impacts and linkages between socio-economic driving forces, pressures on natural resources and the resulting improving or declining state of those resources and sustainable livelihoods. It will also provide clearer direction for changes to natural resource management at local and agro-ecological level and for revised or new policy at national level.

**Component 4:** Carrying out a major analysis and preparation of an strategy for global action

A need for better support for decision-making on the control and prevention of land degradation has been clearly articulated by the various concerned agencies and national and international levels. The project will provide for enhanced capacity for informed decision-making related to dryland management through the involvement of all stakeholders and through the better provision of information that will not only be accurate but also be designed for policy and decision-making.

#### **COSTS AND INCREMENTAL COST MATRIX**

The baseline and incremental costs of the proposed project are summarized in the following incremental cost matrix. The total incremental cost of the project, US\$15.18 million, is required to achieve the project's global environmental objectives. Of this amount US\$7 million is requested for GEF support with the remainder coming from other donors.

## INCREMENTAL COST MATRIX

Project Component	Baseline	Alternative (Baseline +Increment)	Increment
<b>Component 1:</b> Development of the LADA approach: land degradation assessment guidelines, network and information system	Baseline approaches and methods derive from a large number of research and survey projects commissioned in the past, some of which continue under development. These include GLASOD, WOCAT, ASSOD, SOVEUR, SLM-IM, USLE, SLEMSA, EPIC, WEPP, EUROSEM, NUTMON and national assessments. They are limited in their application to <i>LADA</i> on grounds of information methodology, narrow range of biophysical process, lack of attention to socio-economic factors, inapplicability to ecosystem and global impacts, and lack of focus on drylands. <b>Cost: minimum US\$7 500 million</b>	Development of an integrated assessment methodology for drylands that generates new and reliable data on drylands and that factors in socio-economic impacts and drivers and assesses the impact of dryland degradation on globally significant ecosystems  <b>Cost: US\$9.880 million</b>	Methodology for land degradation assessment in drylands  <b>Cost:</b> GEF: US\$450 000 Other: US\$1 930 000 Total: <b>US\$2.38 million</b>
<b>Component 2:</b> Carrying out global and regional land degradation assessments	A large number of remote sensing sensors are available today, including low, medium, high and very high resolution civilian optical satellites and spaceborn radar. Dryland regions are well covered by specialised institutions with the capacity and experience to use these techniques. However, many of the assessments already undertaken at this scale are not comparable and replicable and can not be used to develop a global overview of land degradation in drylands. <b>Cost: minimum US\$200 million</b>	Development of standardised global assessment of land degradation in drylands and impacts on ecosystems and livelihoods that enables cross-regional comparisons.  <b>Cost: US\$203.120 million</b>	Global overview of the extent of land degradation in drylands and global overview of dryland ecosystems threatened by land degradation. <b>Cost:</b> GEF: US\$1 700 000 Other: US\$1 420 000 Total: <b>US\$3.120 million</b>
<b>Component 3:</b> Carrying out local assessments in hot spots and bright spots in pilot countries	Existing local and national level assessments are large in number. They form a baseline for <i>LADA</i> in knowledge, experience and needs-based criteria. However, they are not using a standardised approach to dryland degradation assessment and are not adequately linked with policy and decision-making processes.  <b>Cost: US\$8.500 million</b>	Indicators of biodiversity, land degradation and social and economic conditions are linked and will be used. Assessment of all these will occur concurrently and at the same sites so that cause-effect relationships can be identified. A clearer direction will be provided for changes to natural resource management at national level and for revised or new policy. <b>Cost: US\$15.820 million</b>	At least one national assessment completed in each of the six sub-regions and “bright spots” and “hot spots” and underlying drivers of change identified. <b>Cost:</b> GEF: US\$3 740 000 Others: US\$3 580 000 Total: <b>US\$7.320 million</b>

<p><b>Component 4:</b> Carrying out a major analysis and preparation of an strategy for global action</p>	<p>Existing regional centres with environmental assessment capacity currently play a role in disseminating environmental information and assessments through their networks. However, they lack accurate information on the status of the world's drylands, and efforts are uncoordinated. Efforts to develop guidelines for identification of root causes and impacts of dryland degradation and to improve linkages to decision-making processes. are presently lacking. <b>Cost: US\$1 million</b></p>	<p>Enhanced capacity for informed decision-making related to dryland management.  <b>Cost: US\$2 540 million</b></p>	<p>Guidelines for identification of root causes and impacts of dryland degradation on ecosystems and improved linkages to decision-making processes. <b>Cost:</b> GEF: US\$690 000 Others: US\$850 000 Total: <b>US\$1.540 million</b></p>
<p><b>Project Management and Administration</b></p>	<p>No suitable management structure for such a project currently exists  <b>Cost: 0</b></p>	<p>Project management and coordination  <b>Cost: US\$820 000</b></p>	<p><b>Cost:</b> GEF: US\$420 000 Others: US\$400 000 Total: <b>US\$820 000</b></p>
<p><b>TOTAL COST:</b></p>	<p><b>Baseline: US\$217.00 million</b></p>	<p><b>Alternative: US\$232.18 million</b></p>	<p><b>Incremental Cost:</b> GEF: US\$7.000 million Others: US\$ 8.180 million Total: <b>US\$15.180 million</b></p>

## ANNEX B: PROJECT LOGICAL FRAMEWORK

<b>PROJECT TITLE: Land Degradation Assessment in Drylands (LADA)</b>			
<b>INTERVENTION LOGIC</b>	<b>INDICATORS OF PERFORMANCE</b>	<b>SOURCES OF VERIFICATION</b>	<b>ASSUMPTIONS AND RISKS</b>
<b>OVERALL GOAL</b>			
<p><b>ENVIRONMENTAL:</b> To conserve the biological resources of arid and semi-arid areas [OP1]</p> <p>To catalyze widespread adoption of comprehensive ecosystem management interventions [OP12]</p> <p>To mitigate the causes and negative impacts of land degradation on the structure and functional integrity of ecosystems [OP15]</p> <p><b>DEVELOPMENTAL:</b> To sustainably use the biological resources of arid and semi-arid areas [OP1]</p> <p>To integrate ecological, economic, and social goals to achieve multiple and crosscutting local, national, and global benefits.[OP12]</p> <p>To contribute to improving people's livelihoods and economic well-being. [OP15]</p>	<ul style="list-style-type: none"> <li>Globally important biodiversity is conserved and sustainably used, as indicated by measuring key indicators of ecosystem structure and function; to include surveys of dryland vegetation cover, indicators of ambient threats such as soil erosion and its underlying causes. [OP1 Expected Outcomes]</li> <li>Appropriate policies, regulations, incentive structures, are developed to support integrated ecosystem management</li> <li>The capacity of institutions strengthened to implement integrated ecosystem management approaches</li> <li>Investments are made simultaneously to address local, national, and global environmental issues within the context of sustainable development [OP 12 Expected Outcomes]</li> <li>Institutional and human resource capacity strengthened to improve sustainable land management planning and implementation</li> <li>Policy, regulatory and economic incentive framework strengthened to facilitate wider adoption of sustainable land management practices across sectors</li> <li>Improvement in the economic productivity of land under sustainable management [OP15 Expected Outcomes]</li> </ul> <p>plus specific to drylands and LADA's wider developmental contribution:</p> <ul style="list-style-type: none"> <li>Increase investment opportunities and effectiveness in drylands management</li> <li>Develop the knowledge base for drylands management and increase the human resource capacity to tackle land degradation</li> <li>Overcome current policy and institutional barriers to sustainable land use</li> <li>Establish incentives to promote the accrual of global biodiversity benefits through sustainable land management in drylands at national and local levels</li> <li>Integrate livelihood and poverty considerations into sustainable land management planning for drylands</li> </ul>	<ul style="list-style-type: none"> <li>Biodiversity surveys and conservation plans</li> <li>Sustainable development surveys and reviews</li> <li>National economic surveys and plans</li> <li>GEF Operational Program reviews</li> <li>National institutional policy and practice</li> <li>National legislation</li> </ul>	<p>Continuing work by IAs to assist countries to analyze the causes of biodiversity loss at ecosystem level [OP1 assumption]</p> <p>Strong country commitment to address land degradation within the context of sustainable development and poverty alleviation priorities [OP15]</p> <p>GEF implementing and executing agencies mainstream sustainable land management into their regular programs and activities</p> <p>[plus other risks identified in OP1, 12 &amp; 15 Program Assumptions]</p>



<b>PROJECT OBJECTIVES</b>			
<p>1. To develop and implement strategies, methods and tools to assess, quantify and analyse the nature, extent, severity and impacts of land degradation on ecosystems, watersheds and river basins, and carbon storage in drylands at a range of spatial and temporal scale [GEF category: <b>Assessment Strategies, Methods, Tools and Their Implementation</b>]</p>	<p>By the <b>end of the project, strategies, methods and tools of assessment</b> developed and implemented, as follows:</p> <ul style="list-style-type: none"> <li>• Standardised methodological framework for the <i>process</i> of dryland degradation assessment developed and accepted by ALL participating national groups*</li> <li>• Guidelines for dryland degradation assessment developed and in use in ALL participating countries*</li> <li>• Baseline dryland degradation assessments completed at a scale no smaller than 1:1 million in ALL participating countries*</li> <li>• Global assessment of actual dryland degradation completed mainly through proxy assessments, the drivers identified and key ‘hot-spots’ located where potential impact on ecosystems, watersheds, river basins and carbon storage is severe</li> <li>• Detailed assessments and analysis of land degradation, focusing on areas of greatest risk and areas where degradation has been successfully controlled, completed in ALL participating countries*</li> <li>• Monitoring systems in place to provide warning of land degradation and its impact in ALL participating countries*</li> </ul>	<ul style="list-style-type: none"> <li>• Project reports</li> <li>• Published methods and guidelines papers</li> <li>• National dryland degradation assessments</li> <li>• National impact assessment reports</li> <li>• Priority area reports</li> <li>• Global land cover change assessments</li> <li>• Other assessment (eg. GFRA, GIWA, GPA, MA, IPCC)</li> </ul>	<ul style="list-style-type: none"> <li>• Country commitment</li> <li>• Access to data, surveys and remote sensing imagery unrestricted</li> <li>• Involvement of local stakeholders and communities for detailed assessment unrestricted</li> </ul>
<p>2. to build national, regional and global assessment capacities to enable the design, planning and implementation of interventions to mitigate land degradation and establish sustainable land use and management practices [GEF category: <b>Capacity building</b>]</p>	<p>By <b>end of the project, capability and capacity</b> built at all levels in:</p> <ul style="list-style-type: none"> <li>• <b>Analysis</b> to assess and understand the causes of land degradation areas at risk in ALL participating countries* in terms of: <ul style="list-style-type: none"> <li>i. Types of dryland land degradation</li> <li>ii. Extent and severity of land degradation (changes in soils , land cover , ecosystems, and agro-ecological zones) on the resources used for agriculture (cropping; livestock) and for conservation of biodiversity</li> <li>iii. Biophysical and socio-economic processes, driving factors and causes</li> <li>iv. Impacts on environment (ecosystem function, carbon storage, watershed integrity, international waters etc)</li> <li>v. Developmental impact (food security, livelihoods, poverty etc.)</li> </ul> </li> <li>• <b>Best practices</b> for the identification, control and prevention of land degradation in drylands in ALL participating countries* and institutions facilitated and integrated in policy and decision-making, through: <ul style="list-style-type: none"> <li>i. Multi-stakeholder involvement and participation, especially of land users, farmers and the rural poor at the local level and of policy-makers at national and global levels</li> <li>ii. Inclusion of local professionals and extension agents in field assessment of land degradation through adopting a farmer-perspective and using a sustainable rural livelihoods approach</li> <li>iii. Identification of synergies between different global benefits (biodiversity,</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• National environmental, ecological, soils and land survey reports</li> <li>• National, regional and global institutional policies</li> <li>• Best practice guidelines and implementation plans</li> <li>• Technical manuals and guidance notes</li> <li>• Participatory surveys</li> <li>• Implementation project plans</li> <li>• Monitoring system plans and operations</li> </ul>	<ul style="list-style-type: none"> <li>• Participating countries and institutions continue to accept project goal to mitigate the causes and negative impacts of land degradation</li> <li>• Institutional cooperation and willingness to develop policy for sustainable land management</li> <li>• Communication and exchange of information unhindered</li> </ul>

	<p>climate change, international fresh water basins / river systems etc.) and between global and local benefits (food security, livelihood support, poverty alleviation etc.)</p> <ul style="list-style-type: none"> <li>iv. Adoption and adaptation of scientific knowledge at global, regional and national levels and its integration with local knowledge where local people have successfully controlled land degradation</li> <li>v. Building into implementation project design a capacity for policy guidance and for scaling-up lessons and recommendations to a wider target group and non-project areas</li> <li>vi. Establishment of monitoring systems to sustain improvements in land use and management practices</li> </ul> <ul style="list-style-type: none"> <li>• <b>Communication</b> and exchange of land degradation information, and its linkage to <b>policy process</b> and <b>decision-making</b>, through: <ul style="list-style-type: none"> <li>i. Policy guidance (in, for example, UNCCD Regional, Sub-regional and National Action Programmes)</li> <li>ii. GEF and implementation agency interventions in land degradation control</li> <li>iii. Identification of priority actions, such as policy and institutional reforms and development investments at all levels</li> <li>iv. Implementation of best practices to identify land degradation issues and employ lessons to check and reverse problem issues</li> <li>v. Development of communication provisions for monitoring at all levels the effectiveness of land degradation and remedial control measures.</li> </ul> </li> </ul> <p>[* 'ALL participating countries' refers to countries executing the project and to areas identified as 'hot spots'; but in the longer term also to all signatory countries of the UNCCD with drylands degradation, and which accept the approaches and techniques developed by the project]</p>		
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<b>OUTCOMES AND SUMMARY ACTIVITIES (FOR MORE A MORE DETAILED WORK BREAKDOWN SEE ANNEX D)</b>			
N.B. All 4 Outcomes and Activity sets integrate the two Objectives – (1) Assessment Strategies, Methods, Tools and Their Implementation; and (2) Capacity building			
<b>INTERVENTION LOGIC</b>	<b>STEPS AND CRITICAL CONDITIONS</b>	<b>SOURCES OF VERIFICATION</b>	<b>ASSUMPTIONS AND RISKS</b>
<p><b><u>OUTCOME 1</u></b> An improved and needs-based and process-driven approach to drylands degradation assessment tested and disseminated.</p>	<p>A standardised methodological and conceptual framework developed for the assessment of land degradation and its impact, that has the following essential features:</p> <ul style="list-style-type: none"> <li>⇒ Starts with a needs assessment by national task force</li> <li>⇒ Assessment and analysis then based on the DPSIR Assessment Framework</li> <li>⇒ Scientifically valid using participatory processes</li> <li>⇒ Allows for data replication and use of existing information</li> <li>⇒ Identifies key indicators of the causes of degradation</li> </ul>	<ul style="list-style-type: none"> <li>• FAO-UNEP-GEF reports and manuals</li> <li>• Conference papers to major forums such as GEF Assembly</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of relevant scientific and multi-disciplinary expertise at national, regional and global levels</li> </ul>

	<ul style="list-style-type: none"> <li>⇒ User-friendly at national and local level</li> <li>⇒ Multi-level linked assessments from the field scale to national and regional</li> <li>⇒ Proxy assessments, using new GLASOD/SOTER, GLCN/LCCS/AFRICOVER and other relevant sources and datasets</li> <li>⇒ Suitable for national monitoring systems for land degradation</li> <li>⇒ Capable of giving warning of critical ecosystem functions</li> <li>⇒ Has diagnostic capabilities</li> <li>⇒ Monitors impact on human development and poverty alleviation</li> <li>⇒ Linkage to policy and decision-making processes over allocation of resources and mobilisation of remedial action</li> </ul>	<p>Assembly, COP/UNCCD</p> <ul style="list-style-type: none"> <li>• Scientific papers in relevant journals and international media</li> <li>• Local media reports</li> </ul>	
<b>SUMMARY ACTIVITIES</b>	<b>INDICATORS OF PERFORMANCE [ MILESTONES ]</b>		
<p><b>Activity 1.1:</b> Reviewing data sources, methods and frameworks for land degradation assessment for drylands at multiple scales</p> <p>[this activity brings together the PDF-B outputs in order to construct a process for designing and implementing land degradation assessment at national level].</p>	<p><b>By month 6, reviews of existing work completed and lessons drawn:</b></p> <ul style="list-style-type: none"> <li>• Assemble previous reviews (e.g. from PDF-B stage); field testing indicators report; pilot country stocktaking reports</li> <li>• Review progress of <i>LADA</i> Special Studies (from PDF-B) for global level pilot testing</li> <li>• Integrate lessons and main recommendations with PDF-B e-mail conference and preparatory report (FAO-WSR #100) suggestions</li> <li>• Develop criteria for best practice according to scale of analysis, purpose of assessment and global-local linkage objectives</li> <li>• Review and revise 7-steps <i>LADA</i> Methodological guideline</li> <li>• Develop DPSIR (Driving Forces-Pressures-State-Impacts-Responses) Framework</li> <li>• Recommend best practice in standardised methodologies</li> <li>• Testing the approach for the global land degradation study through two case studies</li> </ul>	<ul style="list-style-type: none"> <li>• Review documents on data sources, methods and frameworks</li> <li>• New <i>LADA</i> brochure for main project, jointly with FAO, UNCCD, GEF and UNEP</li> </ul>	<ul style="list-style-type: none"> <li>• Existing information sufficient and comprehensive enough upon which to build recommendations</li> </ul>
<p><b>Activity 1.2:</b> Developing and testing integrated land degradation information systems at central and national level</p>	<p><b>By month 17, an information system designed and tested:</b></p> <ul style="list-style-type: none"> <li>• Analysis of <i>LADA</i> needs and criteria for information system design and functions</li> <li>• Review of existing databases at global and regional levels (GLASOD/SOTER, Africover, GFRA, WOCAT etc.)</li> <li>• Elaborate information system interrogation criteria to extract datasets required for DPSIR Framework. Include synergy criteria for other GEF focal areas.</li> <li>• Develop prototype information system and database using existing facilities and access, with negotiated adaptations for <i>LADA</i> needs</li> <li>• prototype information system introduced, evaluated and adapted for national conditions, resources and existing information sources and networks (eg. AEIN)</li> <li>• Essential features [participation, diagnostic capability etc.] reviewed by national task forces, and plans made for their explicit inclusion</li> <li>• Performance of information system evaluated against all other existing land degradation assessments at local to national levels</li> </ul>	<ul style="list-style-type: none"> <li>• <i>LADA</i> information system needs review</li> <li>• Prototype information system</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of relevant scientific and multi-disciplinary expertise at national, regional and global levels</li> <li>• Existing information sufficient</li> </ul>

	<ul style="list-style-type: none"> <li>• Global level assessments used to identify preliminary list of critical areas</li> <li>• Pilot testing at different scales, including role in monitoring</li> <li>• Evaluation of pilot testing</li> </ul>		
<b>Activity 1.3:</b> Preparing the stratification, carrying out national hot spot analysis and populating the network and information system	<p><b>Starting in month 2 and finalising at month 19</b></p> <p>Information on drivers and status of land degradation at national and global level is compiled and analysed as a result of the activities under this phase. According to the available information, areas with high degradation or high risk of degradation are identified. The global and the national information systems will be continuously updated as more information becomes available.</p>	<ul style="list-style-type: none"> <li>• Prototype information system</li> <li>• Project reports</li> <li>• National task force reports</li> <li>• Preliminary lists of critical areas</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of relevant scientific and multi-disciplinary expertise</li> <li>• Continued support for national task forces</li> </ul>
<b>Activity 1.4:</b> Developing and disseminating guidelines for an improved needs-based and process-driven approach to dryland degradation assessment	<p><b>By month 26 an improved needs-based and process-driven approach to dryland degradation assessment accepted by participating countries</b></p> <ul style="list-style-type: none"> <li>• Develop criteria for best practice according to scale of analysis, assessment of needs and global priority objectives, including synergies with other GEF focal areas. Consider cost implications in terms of benefits to be derived.</li> <li>• Recommend best practice in the application of a standardised methodological and conceptual framework</li> <li>• Case study report (from Activity 1.3) on information system performance for dissemination</li> <li>• Regional and sub-regional workshops for dissemination and discussion of recommendations</li> </ul>	<ul style="list-style-type: none"> <li>• Best practice guidelines</li> <li>• Case study reports</li> <li>• Regional and national workshop reports</li> <li>• Brochures, CD-ROMS</li> </ul>	<ul style="list-style-type: none"> <li>• Willingness of partners, non-participating countries and other networks to co-operate</li> </ul>

INTERVENTION LOGIC	STEPS AND CRITICAL CONDITIONS	SOURCES OF VERIFICATION	ASSUMPTIONS AND RISKS
<p><b><u>OUTCOME 2</u></b></p> <p>Map with information retrieved from the global/regional land degradation assessment in drylands, which will constitute a baseline of the status of land degradation in drylands, with an especial emphasis on areas at greatest risk</p>	<ul style="list-style-type: none"> <li>• Collection and collation of existing maps and databases, involving: <ul style="list-style-type: none"> <li>⇒ Geo-referencing and digitising of all information on integrated database</li> <li>⇒ Inclusion of natural resource conditions and socio-economic characteristics</li> <li>⇒ Inclusion of GLASOD/SOTER and GTOS databases, Africover/FAO-UNEP GLCN, GFRA</li> <li>⇒ Filtering and testing of existing data-sets and databases</li> <li>⇒ Gap-filling and missing data identified</li> <li>⇒ Cost-benefit and scientific criteria for any new surveys for baseline assessments.</li> <li>⇒ Limited critical new surveys commissioned from project partners</li> <li>⇒ Assessments integrated into database</li> <li>⇒ Mapping at sub-regional level</li> </ul> </li> <li>• Global assessments conducted, using at least the following: <ul style="list-style-type: none"> <li>⇒ UNEP's global LANDSAT dataset for changes in land cover</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Integrated database</li> <li>• FAO-UNEP-GEF regional and global assessments</li> <li>• Millennium Ecosystem Assessment reports</li> <li>• Conference papers to major regional and international forums</li> <li>• Scientific papers in</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of relevant scientific and multi-disciplinary expertise at national, regional and global levels</li> </ul>

	<ul style="list-style-type: none"> <li>⇒ WCMC input on areas of high conservation value</li> <li>⇒ Identification of areas at greatest risk</li> <li>⇒ Sample mapping at global level</li> </ul>	relevant journals and international media	
<b>SUMMARY ACTIVITIES</b>	<b>INDICATORS OF PERFORMANCE [ &amp; MILESTONES ]</b>		
<i>Activity 2.1:</i> Collating, geo-referencing and digitising all available relevant information on regional and global scales	<p><b>By month 33, baseline data collated and accessible on a user-friendly platform</b></p> <ul style="list-style-type: none"> <li>• Assemble databases and ensure free access through stakeholder partnerships</li> <li>• Identify gaps and missing information essential to carry out project objectives</li> <li>• Digitise information at the relevant scale</li> <li>• Produce preliminary baseline maps</li> <li>• Evaluation criteria developed to include at least the following: <ul style="list-style-type: none"> <li>- Scientific quality</li> <li>- Cost-efficiency and financial viability for extending</li> <li>- Field level testing and validation</li> </ul> </li> <li>• End-user (e.g. national institutions; key national experts) comments and suggestions</li> <li>• Quality and utility of the information evaluated</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholder workshop reports</li> <li>• Information database</li> <li>• Preliminary mapping</li> <li>• Project reports</li> <li>• FAO Bulletins and miscellaneous technical reports</li> </ul>	<ul style="list-style-type: none"> <li>• Free access to all available relevant information</li> <li>• Willingness of partners to share information</li> </ul>
<i>Activity 2.2:</i> Carrying out Global and regional Land Degradation studies at low resolution	<p><b>Starting in month 1 and continuing to month 31, a baseline global and regional maps produced and widely available for eco-regions and areas represented by participating countries</b></p> <ul style="list-style-type: none"> <li>• The global regional study will cover three aspects: (i) Land (Soil/Terrain/Climate), (ii) NDVI analysis and (iii) Socio-economics. Study complemented with inputs from all the institutes/projects involved. Prior to this, RS tests will be run in two countries</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
<i>Activity 2.3:</i> Carrying out National/Regional LADA studies, including training and integration with GLADA results and identification and categorisation of areas at greatest risk of dryland degradation	<ul style="list-style-type: none"> <li>• <b>By month 42, nationally-agreed lists of ‘hot-spots’ and ‘bright-spots’ identified, described and widely-available</b></li> <li>• Global and ecosystem assessments reviewed to identify preliminary lists of: <ul style="list-style-type: none"> <li>⇒ Areas at greatest risk – ‘hot spots’</li> <li>⇒ Areas where land degradation is successfully controlled – ‘bright spots’</li> </ul> </li> <li>• Regional ‘expert workshops’ convened to identify the nature of dryland degradation and root causes of processes and impacts, including the results of GLADA and national studies</li> <li>• Areas for detailed assessment described and chosen</li> </ul>	<ul style="list-style-type: none"> <li>• Project reports</li> <li>• Workshop reports</li> <li>• FAO Bulletin on areas at risk</li> </ul>	<ul style="list-style-type: none"> <li>• All relevant institutions continue to agree to be part of land degradation assessment process</li> <li>• Involved professionals agree to balance negative and positive situations</li> </ul>
<b>INTERVENTION LOGIC</b>	<b>STEPS AND CRITICAL CONDITIONS</b>	<b>SOURCES OF VERIFICATION</b>	<b>ASSUMPTIONS AND RISKS</b>

<p><u>Outcome 3</u>  <b>Detailed local assessments and analysis of land degradation and its impact in the pilot countries</b></p>	<ul style="list-style-type: none"> <li>• Training and capacity-building in detailed assessments and analysis, involving: <ul style="list-style-type: none"> <li>• Building national assessment and analytical research capacity in NARS</li> <li>• User needs assessments and stakeholder involvement</li> <li>• Field methods and farmer-perspective assessments</li> <li>• Inclusion of local and indigenous knowledge</li> </ul> </li> <li>• In-country user needs assessments, including: <ul style="list-style-type: none"> <li>• Involvement of all stakeholders, especially local land users</li> <li>• Collation of existing data and gap analysis</li> <li>• Collection of missing data and complementary information</li> </ul> </li> <li>• From Activity 2.3 initiate detailed assessments for at least TWO sites in each participating country, to include: <ul style="list-style-type: none"> <li>• Areas at greatest risk but with some potential for control and rehabilitation</li> <li>• Areas where degradation is controlled and land users' livelihoods are assured</li> </ul> </li> <li>• Policy-forums convened in each participating country to examine linkages to: <ul style="list-style-type: none"> <li>• Local bye-laws; District planning and execution of devolved responsibilities for renewable natural resources</li> <li>• National economic, regional and conservation planning</li> <li>• Development planning and practice of national-level institutions</li> <li>• Development of alternative policy instruments and incentive mechanisms</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Training materials</li> <li>• Cadre of local professionals trained in land degradation assessment techniques</li> <li>• Detailed assessment reports</li> <li>• Policy forums</li> <li>• National plans</li> <li>• Laws and regulations</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of suitable local professionals for training and capacity building</li> <li>• Enabling environment created by national institutions</li> <li>• Policy-makers at all levels able and willing to enter dialogue on land degradation</li> </ul>
<p><b>SUMMARY ACTIVITIES</b></p>	<p><b>INDICATORS OF PERFORMANCE [AND MILESTONES ]</b></p>		
<p><i>Activity 3.1:</i> Developing capacity of national (pilot country) professionals to carry out detailed assessments of land degradation, related to key developmental questions such as livelihoods, poverty and food security</p>	<p><b>Starting in month 5 and completed by month 18, all relevant professionals trained in land degradation assessment, impact analysis and related developmental factors.</b></p> <ul style="list-style-type: none"> <li>• In-country or internationally-provided training courses organised (at sub-regional levels) in detailed assessment of land degradation and its impact, involving: <ul style="list-style-type: none"> <li>• Staff from research, development, NGOs, local extension and district level</li> <li>• Key specific skills for the institutional environment, such as prior training and knowledge base</li> </ul> </li> <li>• Establishment of LADA training centres</li> <li>• Field sites chosen for training with respect to lists developed in Activity 2.3: <ul style="list-style-type: none"> <li>• At least one site where dryland degradation is causing substantial threats to both global concerns (biodiversity; climate change) and to local developmental concern; but that demonstrated potential exists to control degradation once assessment and analysis is completed</li> <li>• At least one site where local and indigenous knowledge is strong and seen to be successful in controlling land degradation and mitigating impacts</li> </ul> </li> <li>• Key developmental issues determined from relevant planning documents:</li> </ul>	<ul style="list-style-type: none"> <li>• Training course reports and evaluations</li> <li>• Reports from NARS</li> </ul>	<ul style="list-style-type: none"> <li>• Cooperation of relevant institutions</li> <li>• Willingness of national and local professional staff to develop new skills</li> </ul>

	<ul style="list-style-type: none"> <li>Local and national planning consultation and workshops</li> </ul>		
<p><i>Activity 3.2:</i> Carrying out surveys of user needs and information system needs at national level</p>	<p><b>By month 18, the needs of users of land degradation assessment and the operation of national-level integrated information system [Activity 1.2] understood in all participating countries</b></p> <ul style="list-style-type: none"> <li>Trained staff undertake a user needs assessment for each site for detailed local land degradation assessment, taking into account: <ul style="list-style-type: none"> <li>Local and indigenous knowledge held</li> <li>The development needs of local people</li> <li>The needs of local professionals to undertake land degradation control</li> <li>National priorities</li> <li>Global environmental obligations</li> </ul> </li> <li>Relevant institutions decide on the siting and organization for a suitable information system to provide policy-relevant data to national planners</li> </ul>	<ul style="list-style-type: none"> <li>User needs assessments</li> <li>Information system plans</li> </ul>	<ul style="list-style-type: none"> <li>Trained staff released to undertake user needs and information needs assessments</li> <li>Institutions can agree on information system and allocate resources accordingly</li> </ul>
<p><i>Activity 3.3:</i> Carrying out Pilot detailed assessments in ‘hot spot’ and ‘bright spot’ areas; and recommending how to for scaling-up the findings to national level</p>	<p><b>Starting by month 19 and completed by month 42, pilot national assessments completed and evaluated for scaling-up</b></p> <ul style="list-style-type: none"> <li>Following training and needs assessments, trained staff undertake full assessments and analysis</li> <li>Assessments reported, along with recommendations for further action in immediate areas of assessment</li> <li>Scaling-up analysis undertaken at national level</li> </ul>	<ul style="list-style-type: none"> <li>Land degradation assessment reports</li> <li>Scaling-up reports</li> </ul>	<ul style="list-style-type: none"> <li>Trained staff released to undertake detailed assessments</li> </ul>
<p><i>Activity 3.4:</i> Analysing National and local level policy processes for renewable natural resources information, determining suitable entry points for land degradation information, and making available and operational the information system for national and district level planning and practice</p>	<p><b>By month 42, an integrated information system [Activity 1.2] is in place in each participating country providing relevant data on land degradation for policy, planning and control interventions</b></p> <ul style="list-style-type: none"> <li>Policy forums established at: <ul style="list-style-type: none"> <li>National level within appropriate agency (e.g. planning or environment ministry)</li> <li>Local level with district executive</li> </ul> </li> <li>Policy analysis undertaken of: <ul style="list-style-type: none"> <li>Existing provisions to promote control of land degradation</li> <li>New provisions and potential avenues for their insertion into policy</li> </ul> </li> <li>Through established policy forums: <ul style="list-style-type: none"> <li>Develop at national level, the mechanisms for undertaking detailed land degradation assessments, linked to national development and environment goals</li> <li>Work with district executives, how land degradation information for critical areas should be handled</li> <li>Collect and disseminate examples of successful practice in policy change, policy instruments and incentive mechanisms <ul style="list-style-type: none"> <li>Institutional provisions</li> <li>Laws, regulations, incentives for land degradation control</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Project reports</li> <li>Policy analysis</li> <li>Minutes of policy forums and meetings</li> </ul>	<ul style="list-style-type: none"> <li>Enabling environment created by national institutions sufficient to support policy forums and analysis</li> </ul>

	<ul style="list-style-type: none"> <li>• Required resources</li> </ul>		
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INTERVENTION LOGIC	STEPS AND CRITICAL CONDITIONS	SOURCES OF VERIFICATION	ASSUMPTIONS AND RISKS
<p><b>Outcome 4</b>  <b>Proposed global action plan, incorporating main findings from the project, conclusions and recommendations for further action</b></p>	<ul style="list-style-type: none"> <li>• Analysis of key critical conditions for successful control and prevention of land degradation in drylands, involving at least the following: <ul style="list-style-type: none"> <li>• Review of project activities at all levels</li> <li>• Feedback and evaluation from national and international partners</li> <li>• The integration of critical components of local and adapted knowledge</li> </ul> </li> <li>• User surveys at a sample of sites and institutions to assess best practices needs and the integration of the recommendations of <i>LADA</i> into plans and practices, involving at least ONE of the following: <ul style="list-style-type: none"> <li>• Global/multilateral development institution</li> <li>• International conservation NGO</li> <li>• International professional organization (such as UNEP, DDC/UNDO, IFAD)</li> <li>• Bilateral aid donor</li> <li>• National economic development planning agency</li> <li>• Line ministry specialist offices at local/district level</li> <li>• District executive office</li> <li>• Resource user</li> </ul> </li> <li>• Review of examples of ‘good practice’ and successful implementation, involving: <ul style="list-style-type: none"> <li>• Success narratives from literature or other sources</li> <li>• Project’s own experience from monitoring systems</li> <li>• Application of project’s own criteria for measuring success</li> <li>• Development of finalised ‘best practice’ advice in: <ul style="list-style-type: none"> <li>• Standardised methods and guidelines for land degradation assessment</li> <li>• Monitoring systems for land degradation control</li> <li>• Detailed surveys for planning and development purposes</li> </ul> </li> </ul> </li> <li>• Identification of high risk areas and the use of success narratives to draw lessons on policy and practice</li> <li>• In parallel in Year 4 of the project, the packaging, communication and exchange of land degradation information globally, regionally and nationally, through: <ul style="list-style-type: none"> <li>• Policy Guidance, based on ‘best practice’ identified from Activity 3.3</li> <li>• Policy development and technical reforms through UNCCD COPs and Regional, Sub-regional and National Action Programmes</li> </ul> </li> <li>• GEF interventions in integrated ecosystem management (OP12 support), sustainable land resource management (OP15) in arid and semi-arid areas (OP1)</li> <li>• Priority Actions, including policy and institutional reform, and development investments</li> </ul>	<ul style="list-style-type: none"> <li>• Review document on critical conditions for dryland degradation control</li> <li>• Reports of user surveys</li> <li>• Case study review of examples of ‘good practice’</li> <li>• ‘Best practices’ review publication</li> <li>• Policy guidance documents</li> <li>• UNCCD COPs and Action Programmes</li> <li>• GEF reviews and guidance documents</li> <li>• Full range of technical and advisory documents from <i>LADA</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sufficient agreement exists between partners to harmonise ‘best practices’</li> <li>• National experts continue to appreciate the role of critical components (such as local knowledge) and to integrate them into their planning and processes</li> </ul>



	<ul style="list-style-type: none"> <li>• ‘Best Practice’ in areas where land degradation has been effectively controlled</li> <li>• Monitoring tools for use at all levels</li> </ul>		
<b>SUMMARY ACTIVITIES</b>	<b>INDICATORS OF PERFORMANCE [AND MILESTONES ]</b>		
<i>Activity 4.1:</i> Developing and testing the framework for analysis of critical components and driving forces for land degradation based on DPSIR	<p><b>By month 30, a generic framework for the analysis of critical components in land degradation designed and demonstrated.</b></p> <ul style="list-style-type: none"> <li>• Identify from previous activities, the critical components arising from land degradation assessment methods that contribute to successful implementation of land degradation control, to include: <ul style="list-style-type: none"> <li>• Incorporation of indigenous and traditional technical knowledge</li> <li>• Synergies with other global environmental change focal areas</li> <li>• Institutional strengths of partners and agencies</li> <li>• Participation of all stakeholders</li> <li>• Develop a framework of critical components for the design of national land degradation control plans for the different scales of analysis</li> <li>• comprehensive inclusion of results to date</li> </ul> </li> <li>• Utility of framework demonstrated in participating countries at: <ul style="list-style-type: none"> <li>• Local level through involvement of land users, local professionals, district staff and development agents</li> <li>• National and regional level planning forums, including the UNCCD RAPs, SRAPs and NAPs</li> <li>• Global and multilateral aid assistance level in, for example, additional funding for land degradation control, global benefit assessments, and other supports for <i>LADA</i> objectives</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Framework for national land degradation control plans</li> <li>• National reports on <i>LADA</i> activities</li> <li>• Synthesis report on requirements for ‘best practices’ implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Partners and co-operating institutions willing and able to agree comprehensive framework</li> <li>• Local, national and international findings sufficiently consistent to develop clear recommendations in the framework</li> </ul>
<i>Activity 4.2:</i> Collating and synthesising information on best practices for land conservation, and preparing a report including policy and resource needs for implementation of the best practices identified	<p><b>By month 39, success narratives analysed and presented.</b></p> <ul style="list-style-type: none"> <li>• ‘Best practice’ lessons derived from multiple sources: <ul style="list-style-type: none"> <li>• FAO, UNEP, UNDP, World Bank</li> <li>• National reports and interviews with key staff</li> <li>• Literature survey</li> <li>• E-mail platform, mini-conference</li> <li>• <i>LADA</i> project experience and brainstorming exercise of involved scientists</li> <li>• WOCAT and other network experience</li> <li>• Reporting of findings on ingredients of success in successful implementation of land degradation control projects</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Book or major report published</li> </ul>	<ul style="list-style-type: none"> <li>• Willing cooperation of all partners and multiple sources with success narratives</li> </ul>
<i>Activity 4.3:</i> <i>LADA</i> involved with other stakeholders in assisting policy development with UNCCD through COPs, RAPs, SRAPs and NAPs at national and regional levels	<p><b>By month 42, <i>LADA</i> scientists actively involved in UNCCD RAP, SRAP and NAP further development and implementation support</b></p> <ul style="list-style-type: none"> <li>• Using guidance on ‘best practices’, policy implications are developed that consider: <ul style="list-style-type: none"> <li>• Laws, regulations incentive structures</li> <li>• Financial and human resource demands</li> <li>• Priority setting (e.g. concentrate on ‘high risk’ areas)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Project reports</li> <li>• UNCCD work plans</li> <li>• RAPs, SRAPs and NAPs</li> </ul>	<ul style="list-style-type: none"> <li>• Willingness of UNCCD secretariat to continue involvement</li> <li>• National partners amenable to project involvement in policy</li> </ul>

	<ul style="list-style-type: none"> <li>• Funding sources</li> <li>• Complementarities with Millennium Development Goals (MDGs), JPOI/WEHAB and other global focal areas</li> <li>• Policy recommendations discussed and assisted through existing policy development forums at national and regional level</li> <li>• Consideration of appropriate policy medium</li> <li>• Support mechanisms for policy implementation</li> <li>• Funding issues</li> </ul>		development
<p><i>Activity 4.4: LADA works with UNEP and GEF Secretariat to develop support advice for implementation of OP15</i></p>	<p><b>By month 45 LADA scientists actively assisting implementation of GEF OPs</b></p> <ul style="list-style-type: none"> <li>• Meeting with GEF Secretariat staff to identify <i>LADA</i> outputs and plan policy development and associated documents with the view to: <ul style="list-style-type: none"> <li>• Supporting implementation of OP15 with cross-cutting relevance to OP1 and 12</li> <li>• Developing assessment methodologies that address synergies with other global focal areas and development goals</li> <li>• Contribution of <i>LADA</i> to other major regional and global initiatives (e.g. NEPAD; MA; MDG, JPOI/WEHAB)</li> <li>• Incremental cost calculations related to land degradation</li> </ul> </li> <li>• <i>LADA</i> staff and UNEP plan strategy for output and impact of <i>LADA</i> methods and guidelines</li> </ul>	<ul style="list-style-type: none"> <li>• Project reports</li> <li>• Minutes of meetings</li> <li>• Planning and strategy documents</li> </ul>	<ul style="list-style-type: none"> <li>• OP15 is the main programme to make land degradation issues operational; and OP15 still commands GEF Council enthusiastic support and funding</li> </ul>
<p><i>Activity 4.5: Final packaging, communication and exchange of land degradation information globally, regionally and nationally</i></p>	<p><b>By end of project, international partners fully engaged with <i>LADA</i> approach and at least three additional countries using <i>LADA</i> outputs</b></p> <ul style="list-style-type: none"> <li>• Dissemination and up-scaling strategy developed, through <ul style="list-style-type: none"> <li>• Dialogue with partners</li> <li>• Comprehensive database of persons and institutions involved in land degradation assessment, control and prevention</li> <li>• Newsletters and information sheets: including guidance notes and technical documents</li> </ul> </li> <li>• Web-based <i>LADA</i> portal and platform established and linked to FAO-UNEP sites, with all documents and advisories available on-line, including <ul style="list-style-type: none"> <li>• Project progress reports</li> <li>• Technical reports on methods and monitoring systems</li> <li>• Case study reports, especially of successful control practices</li> <li>• Advisory notes on integrated assessment</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Dissemination and up-scaling strategy document</li> <li>• FAO-UNEP web portal</li> <li>• Conference proceedings</li> <li>• UNCCD Network Survey web site database</li> </ul>	<ul style="list-style-type: none"> <li>• Willingness of partners and other key players in land degradation to be involved in packaging, communication and exchange of land degradation information</li> </ul>

## **ANNEX C: STAP ROSTER TECHNICAL REVIEW**

### **STAP TECHNICAL REVIEW**

#### **LAND DEGRADATION ASSESSMENT IN DRYLANDS (*LADA*)**

William Critchley  
Vrije Universiteit Amsterdam

**5 August 2004**

#### **1. PREAMBLE**

This review follows the agreed terms of reference (TOR) relating to the STAP review of the above project brief<sup>65</sup>: ‘Land Degradation Assessment in Drylands’ hereafter referred to as ‘*LADA*’ or ‘the project’. The six ‘key issues’ are covered as well as the six ‘secondary issues’. There is also a brief general introduction, and a concluding section with ‘miscellaneous points’ that do not fit conveniently under the main headings. It must be pointed out that various tables/ annexes belonging to the proposal detailing costs, incremental costs, co- and associated finances as well as Annex E (Public Involvement Plan) were not available or apparently completed at the time of the review. While this has little effect on the current exercise (which is technical in nature), it will obviously slow down the process of submission of the proposal to the GEF-SEC.

#### **2. GENERAL COMMENTS**

The *LADA* project brief comprises a comprehensive and clearly written document. It evidently stems from considerable intellectual and scientific input, and builds up a convincing case for standardisation of land degradation assessment. It is commendable that *LADA* also seeks to highlight positive experience with mitigation of land degradation. This reviewer strongly supports the principles involved, and the urgency of carrying out such an exercise, for the reasons argued in the document: land degradation is a pernicious environmental problem which is prevalent in the drylands, has an intimate relationship with poverty and yet is poorly understood and inadequately addressed.

The brief closely follows a GEF path, covering all the main issues of relevance to a project to be funded under OP 1 (though it might perhaps have been equally at home under OP 15 – Sustainable Land Management). Nevertheless strong cross-cutting linkages are drawn, both with OP 15 and OP 12. Comparing the brief with the checklist of ‘common mistakes’ in the UNEP-GEF Operational Manual, there are no evident errors to be found. There can be no doubt of *LADA*’s potential global environmental significance (in terms of biodiversity, carbon storage, ecosystem function and more). There is a good combination of institutional, technical and strategic purposes.

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<sup>65</sup> ‘brief’ = proposal in UNEP-GEF terminology and the two words are used interchangeably here

### 3. KEY ISSUES

#### 3a Scientific and Technical Soundness

The scientific rationale for this project is compelling and is convincingly spelt out: the document provides excellent supporting references and valuable footnotes. It has been well researched. Land degradation is a major threat to the global environment, and is virulent in the drylands where its interlinkage with poverty (both a cause and a consequence; thus a vicious cycle) is a major challenge. Yet the definitions of land degradation, the quantification of its impacts and causal factors range widely from country to country, and organization to organization, because of the lack of a standard approach. This has directly led to confusion, some cynicism and has partially been responsible for a paralysis of action. If we don't know how bad the problem is, and what the measurable benefits are, then why invest? And where and in what to invest? That has dogged dryland development programmes for decades.

The key to the *LADA* project is that it promises to deliver a scientifically based consensus on how to assess land degradation, and intends to merge diverse and conflicting systems into one. This is urgent. Even more important – and perhaps not adequately stressed in this brief, though implicit – is the fact that consensus should have the effect of re-focussing international attention on the problem, through helping to eliminate scepticism arising from the current widely varying estimates noted in the proposal<sup>66</sup>. The profile of land degradation will be raised. The brief's logical framework offers a useful split between 'environment' and 'development' - for clarity, not divisiveness – and this highlights the positive and direct developmental consequences of what might be construed at first to be mainly an environmental problem. Thus the project looks at 'hot spots' of land degradation and 'bright spots' of mitigation. Despite the confusing imagery this makes for a balanced approach.

#### 3b Global Environmental Benefits

There is absolutely no question that land degradation – and its antithesis, mitigation or effective land management – is at the heart of ecosystem function with its direct impact on biodiversity and carbon storage<sup>67</sup>. It both impacts on climate change (through loss of carbon storage) and is affected by climate change in multiple ways. It would be difficult to identify another environmental problem with so many linkages. There are close interactions with poverty. While 'the drylands' are generally considered marginal (literally and metaphorically), the project document points out their importance in terms of extent (47 percent of the globe's surface<sup>68</sup>) population (37 percent of the world's population<sup>69</sup>) and biodiversity. With the drylands particularly prone to land degradation, or 'desertification' (for example 20-50 percent of land in Sub-Saharan Africa) and relatively starved of investment, this is a well worthwhile initiative in terms of global environmental benefits.

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<sup>66</sup> Para 3 of the brief tells us "Answers [to the questions at the core of the debate] range from the modestly optimistic to the wildly pessimistic"

<sup>67</sup> It is a relief to see the term 'carbon storage' used in place of the more common 'carbon sequestration' thus dispensing with jargon and making the concept clearer to non-specialists.

<sup>68</sup> 47 percent is the figure given in para 3. Soon afterwards para 9 quotes a figure of "approximately 40 percent of global land area" and Annex G "29 percent of global land area": consistency is required – or an explanation of why they differ

<sup>69</sup> 37 percent is the figure given in para 10; 30.5 percent in Annex G – see comment in footnote 4

### **3c GEF, OP and CBD, CCD Goals**

The brief makes a very strong case for the project's position, fairly and squarely at the centre of various international environmental and development goals. Through assessment of land degradation in its broadest sense comes an understanding of causes and impacts, and environmental implications. Through identification and promotion of best practice comes development benefits to help guide (amongst others) the UNCCD's National Action Programmes (NAPs). The logframe usefully differentiates not just between environmental and development goals and indicators, but also separates out those related to OP 1, to OP 12 and to OP 15. There is also frequent and adequate mention given to the links to the goals of the UNCCD – with its associated NAPs, and the UNCBD – where the brief sets out clearly the extent and significance of biodiversity in the drylands<sup>70</sup>. Land degradation in the drylands is a direct threat to quantity and diversity of biological organisms, and conservation of land restores the potential for that biodiversity to flourish, ecosystems to be restored, more carbon to be stored in the land (below and above ground) and poverty to be reduced. There can be no doubt that *LADA* addresses these goals.

### **3d Global and Regional Context**

A focus on six countries (with initially three 'pilot' countries amongst these: though it is not clear which those are until paragraph 42) is sensible. It could be argued that the choice be better explained with respect to the assumption that results will be "upscaled to countries within their regional remit" and (footnote 40) "each of these countries will carry out dissemination and outscaling to other countries within their region". To what extent are these countries really 'representative' of their regions? Why is the Indian subcontinent omitted? While recognising the difficulty in choosing six willing partners to 'represent the rest' it would be valuable to justify the selection more clearly.

Care will also be needed in reconciling national steps and approaches (eg results of 'needs assessments') with a standard international methodology: is there room for national interpretation of standards? Related to this there is an apparent contradiction, which should be explained, between the emphasis on standardisation (which is stressed throughout) and the mention, most notably in Annex G, of 'participatory methodologies', involving land users. The latter would tend to lead to location specific concepts and ideas: how will these two be reconciled?

The final point here is the footnote in the logframe under 'objectives' explaining the use of the term "ALL participating countries". This states that "in the longer term [*LADA* will expand beyond the six executing countries to] "all signatory countries of the UNCCD with dryland degradation which accept the approaches and technologies developed by the project". It is rather strange to draw attention here to countries in the post-project phase, when within the project there are three (unnamed) extra participating countries mentioned in the logframe (against activity 4.6) which are *not* mentioned here specifically.

### **3e Replicability of the Project**

The rationale for the six countries (mentioned above) is that they will act as nuclei from which the methodology and approach of *LADA* will spread. Three will act as pilot countries, expanding to the six and a further three (unspecified) by the end of the project. Then guidelines will be

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<sup>70</sup> It would be useful to mention an important and closely related UNEP-GEF MSP in this context: 'Promoting best practices for conservation and sustainable use of biodiversity of global significance in arid and semi-arid zones' (GF/1300-99-03)

produced to spread the message of land degradation assessment and mitigation further. The effectiveness of this will be dependent on the whole *LADA* approach being institutionalised within the FAO, UNEP-GEF, the GM, CGIAR Centres, ISRIC etc and various other international and national partners and carried forward as part of regular programmes (see sustainability).

An outside observer of the *LADA* project might rightly ask: *why the just the drylands?* The obvious retort is that this is where poverty is concentrated, this is where the problem of land degradation has been largely underfunded, and it is where the confusion between terminology<sup>71</sup> - as well as the fluxes and extent of land degradation - is the greatest. Climate change is likely to have the greatest impact in these climatic zones. Finally the UNCCD has been dogged by these uncertainties. Nevertheless, if a methodology of assessing land degradation is relevant to the drylands, surely this methodology will also be valid for the more humid zones where land degradation is also a crucial issue – especially on densely populated steep tropical hillsides? Perhaps there is mention of this somewhere in the brief? But if so it certainly is not prominent: it should be discussed.

### **3f Sustainability**

*LADA* is termed a ‘project’ of 4 years duration: from January 2005 until December 2008. The timeframe for the completion of this ambitious project is extremely optimistic<sup>72</sup>. Are all the stakeholders convinced that it is possible? Has the necessary commitment been expressed? Presumably so – but this perhaps should be noted in the text. *LADA* is intended to be a catalytic start to a process or programme, embedded in the Food and Agriculture Organization, and other international partners together with participating countries: the standard assessment methodology will be taken on and used consistently. This would apply also to those ameliorative land management initiatives that *LADA* promises to stimulate. If the wide reaching plans for dissemination of products, international meetings materialise as provided for here, then durability will be ensured. The strong emphasis on capacity building will also help ensure sustainability.

## **4. SECONDARY ISSUES**

### **4a Linkage to Other Focal Areas**

The terms of reference state that “*the project has strong linkages with the land degradation, international waters and climate change focal areas*”. This is a land degradation project – in name and by definition – so that is not a link but the central issue. The links with international waters will come eventually when countries with neighbouring water bodies (both rivers and lakes) become directly involved in *LADA*. That will be achieved through reduction in pollution/sedimentation of water bodies and improved flow regimes when ecosystem function is improved. It will not happen significantly within the four years of the project, but should be a legacy. Climate change is addressed, as has already been noted, primarily by increasing carbon storage above and below ground. Turning it around, the impacts of climate change on the development of ‘hot spots’ of degradation is an articulated aim of the project.

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<sup>71</sup> Especially the term ‘desertification’

<sup>72</sup> This reviewer notes that the period from the first steering/ scientific meeting in January 2002 until now is already two and a half years: with so many stakeholders involved this is not surprising.

#### **4b Linkage to Other Global Assessments**

The project document makes note of all the important assessments of land degradation that have taken place and methodologies that are in use currently. Paragraph 17 states clearly how LADA will 'emulate' relevant global assessments by addressing international land related processes. Paragraph 19 links LADA to the Millennium Ecosystem Assessment and 'Complementarities with Millennium Development Goals' is articulated as an indicator of performance under activity 4.4 in the logframe.

With respect to LADA's plan to identify 'bright spots' ('best practices' etc) it is noted that several of those organizations that have been working on this for several years have been included within LADA as partners<sup>73;74</sup>. The principle one here (which indeed is given prominence in the document) is the WOCAT network whose remit has been almost precisely what LADA intends, namely the identification and documentation of bright spots and best practices in conservation. It is to be hoped that LADA can work closely with WOCAT and others, and use already developed standardised approaches. There will be little need in this context to develop new methodologies. What is strange is that this collation and synthesis of success narratives only happens in months 30-36: would an earlier focus on the 'positive' not send out better signals? The eventual 'summary of best practice guidelines' must demonstrate how it has evolved from various other publications along the same lines, and indeed could be basically a review of those, topped up with new cases and new analysis.

#### **4c Other Beneficial or Damaging Environmental Effects**

It is hard to identify beneficial environmental effects that have not been covered in the brief – other than perhaps general attention raising to the importance of land degradation and its link with poverty. The only damaging effects would occur if the assessment process was flawed, and investments were thus misdirected.

#### **4d Stakeholder Involvement**

Not only is the project internationally 'inclusive' (see 'Linkage to Other Global Assessments') but it also seeks to involve both national level scientists and decision makers and land users. LADA involves all the main actors who are/ have been involved in land degradation<sup>75</sup>. Strategic alliances will be key both to speed up work, but also to avoid duplication or competition. What is not entirely clear, however, is whether sufficient account has been taken of the need for potential 'negotiation' that may be needed to resolve defensive positions and methodological territoriality. Perhaps this is an unduly pessimistic note to make, but the risk (expressed frequently in the logframe) of 'willingness of partners.....' is a very real one. Nevertheless the composition of the Steering Committee and the Scientific Committee will ensure inclusiveness and help provide a platform to pre-empt such problems.

#### **4e Capacity Building**

There is a full and comprehensive mandate to build capacity at various levels – notably amongst nationals. Paragraph 43, for example, notes that LADA will be executed primarily through national experts. Objective 2 is expressly to build capacity building, but under objective 1 capacity will be inevitably built also.

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<sup>73</sup> One potential key partner appears to be missing: that is IWMI with its 'Bright Spots' project – looking specifically at efficient use of water in agriculture - which is currently putting together a book highlighting 'drivers' and best practices

<sup>74</sup> This partnership comes out much more clearly in the logical framework than in the narrative.

<sup>75</sup> See box 5: Project Management Organogram

#### **4f Innovativeness of the Project**

The key to the innovativeness here is that *LADA* seeks to pull together a range of diverse methods of assessment – so the standardisation and implicit cooperation that would be associated is the innovative feature. On top of that, there is the question of connecting the methodology and assessment with the creative element of positive land management strategies: that is also innovative in a field where only one side of the coin (degradation *or* bright spots) has usually been the focus of previous studies.

#### **5. MISCELLANEOUS POINTS**

Finally there are a number of other points/ issues raised for consideration:

- The overall title of the project ‘Land Degradation Assessment in Drylands’ gives a rather unilateral impression of a project that is actually broader and more creative (in its development aspect) than this suggests. Perhaps a subtitle – to appear on documents - could be invented to redress that balance? Something along the lines of :

**PROBLEMS AND POTENTIALS OF LAND MANAGEMENT IN MARGINAL AREAS**

or

**Standardising degradation assessment and stimulating better practices in marginal areas**

or

**“Hot Spots” and “Bright Spots”: dealing with problem areas and stimulating best practices**

- Following on from the above, there is a rather strange mismatch between the naming of the two objectives: the first basically comprises the whole of what is implicit in the title ‘*LADA*’ while the second is a more developmental objective - which is curiously headed ‘capacity building’ rather than, perhaps, ‘mitigation of degradation’. Capacity building is part of the first objective also.
- It is commendable that the outputs should be produced in ‘accessible form’ and not hidden away in electronic, digital, databases.
- Paragraph 21, sentence 3: should the word ‘address’ be replaced by ‘assess’? (...not doubting that ‘address’ is also true)
- Paragraph 24: why are ‘bright spots’ and ‘best practices’ and their development implications not named specifically amongst these five-fold ‘alternative scenarios’? The fifth (e) would seem the natural home for these.
- Box 1 would be more impressive if the areas figures were related to the percentages that the proposal generally uses



## **ANNEX C1: RESPONSE TO STAP/COUNCIL/IA COMMENTS**

UNEP and FAO thank the STAP reviewer for a thorough and constructive review of the LADA Brief. Our joint response is summarised below.

### **1. Preamble**

We apologise for the fact that the incremental cost analysis and the public involvement plan were not available at the time of review. These annexes are now complete and will be included in the response sent to the STAP reviewer. The delay in finalizing the required incremental cost annex was due to the difficulty in conducting an incremental cost analysis of a global project, in particular in establishing and costing of the global baseline. A detailed stock-taking exercise was undertaken in the PDF-B phase of *LADA* of (1) existing land degradation assessment methodologies, (2) remote sensing and global assessments, and (3) national assessments and the use of indicators. The PDF-B resulted in comprehensive reports on these issues (see summaries of reports in Annex G), but the problem of relating them to the cost of the baseline remains. Annex A now has a detailed incremental cost matrix, outlining the sources of information, baseline by project component and the basis for estimation of the baseline costs.

### **2. General comments**

The reviewer points out the urgency of *LADA* to address a compelling environmental problem of land degradation that is pervasive in the world's drylands with strong linkages to poverty. We fully agree with this statement and would only add that land degradation is the greatest threat to what is the most threatened biodiversity, that is the species both wild and domesticated in the world's drylands.

### **3a. Scientific and technical soundness of *LADA***

The review notes that *LADA* intends to build international consensus on how to assess land degradation, but that the Brief does not adequately stress that this consensus should have the effect of re-focussing international attention on the problem, through helping eliminate scepticism. We agree with this observation and see the role of *LADA*'s international stakeholders such as the UNCCD, GM, international conservation NGOs and GEF-IAs as crucial in building the required consensus. Activities 4.3, 4.4 and 4.5 (see Annex B Logical Framework) already engage with the actions that will be required. The project Steering group will need to be reminded to give these Activities the proper emphasis and priority so that international attention is focussed on the problem and the scepticism that is common amongst some stakeholders counteracted by sound practice in land degradation assessment.

### **3b. Global environmental benefits**

The review points out that land degradation is at the heart of ecosystem functioning with direct impacts on biodiversity and carbon storage. There is therefore no question that *LADA* will generate global benefits – a view that we fully support.

### **3c. Fit under operational programme**

UNEP would like to point out that *LADA* was conceived before land degradation became a focal area of the GEF and *LADA* has therefore been designed to address land degradation as a cross-cutting issue affecting arid and semi-arid ecosystems. However, had the *LADA* design process started after the Second GEF Assembly that designated Land Degradation as a focal area, *LADA* would most likely have been designed under OP15 on Sustainable Land Management.

### **3d. Global and regional context**

The reviewer is requesting a better explanation for the choice of pilot countries that will function as regional nodes for *LADA* and to what extent these countries are representative of their regions. He would moreover like to know why the Indian sub-continent has been omitted.

First, three countries to test and develop a methodological approach for *LADA* were selected in the PDF-B phase. Due to the limits of funding in this phase, one country each in Africa, Asia and Latin America was selected. The criteria for selection included the status of the NAP, the overall in-country capacity to conduct environmental assessments and expressions of interest from countries in participating and supporting *LADA* during its PDF-B stage. Senegal was considered to be the most suitable country in West Africa, largely due to the work undertaken by its Centre de Suivi Ecologique (CSE). China is not only Asia's largest country, but is investing considerable resources in controlling land degradation and monitoring of desertification. Likewise, Argentina was considered to be a leading country in Latin America with substantial drylands with regard to land degradation assessment and mapping and has undertaken considerable efforts to identify desertification indicators that can be used in monitoring.

For the full-size projects, an additional three countries have been selected to function as regional nodes for Central America and the Caribbean (Cuba), Near East, Mediterranean and North Africa (Tunisia), and Southern, Central and Eastern Africa (South Africa), using the same criteria as in the selection of the first three pilot countries. These countries are not only representative of their regions, but also have information to share and capacity to train their neighbours in using *LADA* tools and methodologies. If more co-financing is forthcoming during the appraisal phase, the Steering Committee will be urged to consider how the drylands of South Asia can receive more attention from *LADA*.

The reviewer is also raising the issue whether there will be room for national interpretations of *LADA* standards. Although the aim of *LADA* is to develop standardised methods and approaches for land degradation assessment, the need for flexibility is integrated into project design, and a menu of options, particularly for the local assessments will be offered. Outcome (Component) Three for detailed assessments has the largest budget provision, in part reflected by the need to build in flexibility for the different circumstances of countries and the need to address different socio-economic groups. Activity 3.2 is addressed to identifying user-needs, which includes the national interpretations of *LADA* standards. Participatory methodologies will mainly be used in the local-level assessments, whose main aim is to improve the understanding of land degradation processes and socio-economic drivers of land degradation. While the extent of degradation in different local assessments may not be directly comparable, processes and local perceptions will be. It is this improved understanding of the underlying causes and local people's understanding of land degradation that contribute to better remediation of land degradation at the 'hot spots' identified in the regional and global level assessments.

The reviewer notes that attention is drawn to countries in the post-project phase in the logframe, which indicates that *LADA* will expand to 'all signatory countries of the UNCCD', especially as there are already references to three additional countries that are not mentioned by name. Additional countries such as India and Mexico have already been included in the *LADA* PDF-B phase using their own funds. As *LADA* products become available and readily appreciated, an up-scaling strategy will be developed (see Activity 4.6). UNEP and FAO strongly believe that up-scaling must be made an integral part of the final stages of the GEF-funded *LADA*. While international stakeholders such as UNCCD will be keenly involved, the designers of the improved methodology will be the best protagonists of the new techniques and their application.

### **3c. Replicability**

A replication mechanism has been built into project design (see Activity 4.6 and comments above on the post-project phase) but as pointed out by the reviewer, the effectiveness will depend on the *LADA* approach being institutionalised within FAO, UNEP and other international organizations. Steps have already been taken to mainstream the *LADA* approach into FAO's and UNEP's assessment programmes, which is evidenced by the substantial co-financing coming from these organizations, particularly FAO.

The reviewer is also asking why *LADA* covers only the drylands and not more humid zones, where it surely also would be relevant. The reason for this is that biodiversity is most threatened by land degradation in drylands and there is therefore an urgency to start in drylands and to develop a methodology that is easily applicable in these zones. However, the long-term goal of *LADA*, as pointed out earlier in the review, is to expand the assessment to all countries that are parties to the UNCCD. *LADA* has been designed to have generic capability. Moreover, the project already covers some zones that range from the semi-arid to sub-humid as, for example, in the Caribbean.

### **3f. Sustainability**

The reviewer points out that the four-year time frame is ambitious. In the Brief, we already note that *LADA* is intended to be a catalytic start to a process embedded in FAO together with other international organizations and participating countries. As a catalyst, *LADA*'s time frame is reasonably medium term with the anticipation that *LADA* outputs will be fully developed by the stakeholder organizations after the end of the project. Consequently, the OVI's in the Logical Framework have been modified at Outcome level to accommodate a more limited achievement of the components and a better reflection of the embeddedness it is hoped will be achieved for the *LADA* processes.

### **4a. Linkages with other focal areas**

See discussion under 3 on OP fit and the reason land degradation is addressed as a cross-cutting issue by *LADA*.

### **4b. Linkages to other global assessments**

The reviewer raises the issue why the collation and synthesis of success narratives only happens in month 30-36 in the project, which is considered to be somewhat late. We agree with the reviewer that ideally this collation should come earlier. A preparatory stage to the collation has now been built into the Project Workplan (Annex D) from Month 24. However, the project proposers feel that successive narratives must be fully informed especially by the pilot detailed assessments (Activity 3.3 – Months 24-30). It is felt that success narratives are better completed after a full evidence-based has been compiled.

### **4c. Beneficial or damaging environmental effects**

The reviewer states that the only damaging effects would occur if the assessment process was flawed, and investments were thus misdirected. UNEP and FAO will monitor the assessment process closely to make sure that this will not happen.

### **4d. Stakeholder involvement**

The question is raised whether sufficient account has been taken of the need for negotiations to resolve methodological differences. The PDF-B process has already undertaken a number of international, regional and national consultations to reach agreement on the overall

methodological approach and framework to be used by LADA. The future assessment process has been designed to be consultative and participatory, with some in-built flexibility for indicator use in the local assessments. UNEP and FAO therefore do not consider this to be an issue.

#### **4e. Capacity building**

We agree with the reviewer.

#### **4f. Innovativeness**

We agree with the reviewer.

### **5. Miscellaneous points**

Title: we agree with the reviewer where he notes that the overall title of the project ‘Land Degradation Assessment in Drylands’ gives a rather unilateral impression of a project that is actually broader and more creative than this suggests. The title *LADA* has been inherited from its early PDF stages and now has a resonance and recognition with national and international stakeholders. Therefore, we would wish to retain the present main title. The reviewer suggests a number of possible sub-titles, all of which have merit in that they better explain what *LADA* actually does. At this stage the project proposers would prefer not to take unilateral action to insert a sub-title but rather refer the issue to the first full Steering group meeting of the project.

Mismatch between the naming of the two project objectives: this point of the reviewer follows on from his suggestion relating to subtitle of the project. This will be accommodated in the same way as consideration of a sub-title. We agree with the reviewer that we would like to see the capacity-building and developmental elements of the project better profiled in the title, but we would wish to involve the key stakeholders in any formal decision to change.

Paragraph 21, sentence 3: [now in #22]. The reviewer’s suggestion has been followed.

Paragraph 24: [now in #25]. The reviewer’s suggestion has now been inserted under item (e).

Box 1: The point the reviewer makes would indeed reinforce the information in this box, but regrettably the data are not currently available.

## **ANNEX D: PROJECT WORK PLAN**

### **COMPONENT I:**

#### **DEVELOPMENT OF THE LADA APPROACH: LAND DEGRADATION ASSESSMENT GUIDELINES, NETWORK AND INFORMATION SYSTEM**

**(OUTCOME: an improved needs-based and process-driven approach to drylands  
degradation assessment tested and disseminated)**

### **1. 1 Reviewing data sources, methods and frameworks for land degradation assessment for drylands at multiple scales**

#### **1.1.0 Set up of a Management Team (Month 1)**

This includes the establishment of an internal Task Force within FAO (corresponding to the PAIA to Combat Desertification), the nomination of a Lead Technical Unit (Land and Water Development Division, AGLL) and the major contributing services divisions (Environment and Natural Resources Service (SDRN), Agricultural sector in Economic Development Service (ESDA) and the Rural Development Division (SDA), the identification of the budget holder (the Service Chief AGLL), the nomination of a day-to-day project management team (AGLL/SDRN) and the recruitment of a project technical advisor. In the participating countries, national team leaders will be appointed by the counterpart institutions.

This first phase also includes the nomination of general service support at FAO HQs to deal with accounting, budget revisions, etc...

Project Technical Advisor (36 Months, US\$453 000, P3 level); Budget Clerk (Part-time, 24 Months, US\$47 296); FAO in-kind contribution for Core Project Management (800 K).

#### **1.1.1 Review of data sources, methods and frameworks (Months 1 - 3).**

This includes the review of the full outputs of the LADA PDF-B phase and the work undertaken since then. The objective is to produce a document that compares the achievements and outputs of the PDF-B phase with the LADA objectives and identifies how to proceed with the global and local studies as basic document to be discussed in the LADA Launch workshop. Annex G to the project brief document gives an overview of the achievements until now.

Input: International Consultant TCDC 3pm 9 000

Output: A document summarizing and complementing PDF-B results giving guidelines and approaches.

#### **1.1.2. First Steering Committee Meeting (back-to-back technical workshops on II (GLADA) and III (local) assessments. (Month 4)**

This Workshop would bring together the technical and operational steering committees and representatives of each of the pilot countries involved. It would discuss the global and national LADA approach as prepared under 1.1.1 and suggest changes, additions and refinements, while adapting it to the local needs and circumstances. Proceedings of the meeting will be prepared.

Total Input: US\$60 000 (Travel/DSA) and TCDC consultant to produce proceedings (1 month, US\$3 000)

Output Meeting report (Publication US\$5 000).

### 1.1.3. Publications (month 4 – 6)

Final LADA guidelines will be prepared on GLADA and for the national/local studies. In addition a LADA Brochure will be prepared in 5 languages (E, Fr, Sp, Ch, Ar). All these will be edited and published under FAO/UNEP/GEF logo. The project will also publish the WOCAT guidelines under appropriate logos.

Inputs :

- Int. Consultant to produce LADA brochure (US\$10 000)
- Int. Consultant to produce final guidelines (TCDC US\$6 000)

Outputs:

- Publications LADA Guidelines (US\$30 000).
- Publication LADA Brochure US\$30 000 - 5 languages.
- WOCAT Guidelines (US\$10 000)

## 1.2. Developing and testing integrated land degradation information systems at central and national level (Months 2 - 17)

This activity aims at establishing a land degradation information system linked to central and national LADA web sites and LD information systems. For the central LD information system (prototype), the idea is to start with the existing expertise in-house and the LADA Virtual Centre, interact with national experts and carry out a user survey through an email conference. The project will build upon existing dryland information systems and land degradation networks or take them as examples (MEDCOASTLAND, DESERTLINK). For the national LD information systems, national experts will be involved through a workshop and training course given by consultants in the countries as soon as a prototype is ready. The national information management experts will adapt and implement the prototype according to national circumstances. A second user survey/email conference will then collect suggestions for improvements.

Work Packages	US\$
Review existing and potential networks and information systems and first user survey (Int. consultant GIS/DB 3 pm), both at national and international level	30 000
FAO workshop with national experts GIS/DBM (National experts will provide their findings on the national information systems related to land degradation)	50 000
Subcontract to develop the prototype LADA Network (e.g. MEDCOASTLAND or FAO)	25 000
Subcontract to develop the prototype for the National LADA information systems (e.g. Desertlink or internal FAO)	75 000

National consultants (6 p/week) to install in-country stratification	15 000
Adapting the prototype & web design to national circumstances 6 national consultants for 3 months each	54 000
Establish Central LADA Hub (Int. Consultant WEB/DM for 3 pm)	30 000
Second user survey (Int. consultant 2 pm)	20 000

### **1.3. Preparing the stratification, carrying out national hot spot analysis and populating the network and information system (Month 2 - 19).**

Information on drivers and status of land degradation at national and global level is compiled and analysed as a result of the activities under this phase. According to the available information, areas with high degradation or high risk of degradation are identified. The global and the national information systems will be continuously updated as more information becomes available

For the stratification exercise the following information will be incorporated into the global system:

- the Global Agro-ecological Zone Information System (LGP and P/PET time series (AGLL))
- Land Cover Information (EC-JRC/SDRN)
- the global Farming System information (AGS/AGLL/SDRN)
- the sub-national land use information (AGLL) and related general land use information (AGA/SDRN and FOR)
- the most recent population (rural/urban) information (SDRN)
- the updated GLASOD information (ISRIC/WOCAT/AGLL/MA).
- The global irrigation database (AGLW etal.)
- Protected Area global database (UNEP/WCMC)

A harmonized global land information system will be established using all these layers at a resolution of 5 by 5 arcminutes. The combination of these layers will produce a number of derived products, in the first place a Global Database on Major Land Production Systems Units and allow a first scan of areas which are considered at risk or have already been severely degraded. This will also result in an enhanced GLASOD-like evaluation and their associated land, land use/farming system, land cover and population characteristics. This prototype information system will be distributed to the individual pilot countries that will be responsible for adapting it to their local conditions and correct gross errors particularly in the land degradation evaluation and the farming system/land use characteristics. International and national consultants will be recruited to prepare the prototype and the local adaptation of the system.

Countries will carry out their national analysis with the assistance of international consultants and according to the stratification proposed. The information produced will be incorporated in their national information system and the global system.

The final output is a global land information system identifying major land production systems worldwide, which has been complemented with country information, reports of NAP of

UN-CCD and other institutions such as Agrhyment, OSS, ICARDA and ACSAD, ROSELT and which identifies the degree of land degradation, hot spots and bright spots. Budget for individual activities include:

<b>Activities</b>	<b>US\$</b>
Use Global databases on GAEZ, Farming System (or Land use), Climate and Population to generate Global stratification (Centrally done Rome based GIS/Land Use consultant 6.0 pm )	30 000
Check stratification in pilot countries and associated countries and incorporate in information system.(6 Subcontracts nat. institutes)	60 000
National land degradation study (Tunisia and Cuba only)	20 000
Complete with Documents, Maps and Land degradation info and prepare national report (nat. institutes)	60 000
Integration National info with Global stratification (3pm Int. consult.)	30 000
Training DESERTLINK/WEB	30 000

#### **1.4 Developing and disseminating guidelines for an enhanced need-based and process-driven approach to dryland degradation assessment (Month 22 – 26)**

A national report on the outcomes of the previous activities will be prepared in each pilot country. FAO and the LADA pilot countries will encourage other countries with drylands to adapt/use the land information system and the methodology of assessment through regional networks. Budget for individual activities includes:

<b>Activities</b>	
Publish national reports on outcome 1.3 and identify best practices including synergies with other GEF focal areas (6 national publications)	US\$30 000
European Workshop (EU/FAO/UNEP) EU funding.	EU funding
Support to Regional Networks	US\$10 000



## COMPONENT II:

**CARRYING OUT GLOBAL AND REGIONAL LAND DEGRADATION ASSESSMENTS  
(OUTCOME: map with information retrieved from the global/regional land degradation assessment in drylands, which will constitute a baseline of the status of land degradation in drylands, with an especial emphasis on areas at greatest risk)**

### **2.1. Collating, georeferencing and digitising available relevant information on regional and global scales (month 1 - 3).**

#### **2.1.1 Desk study**

This activity involves the collation of information available at international level of all databases, satellite images, reports and documents relevant for the global land degradation assessment and the development of a provisional methodology based on existing work.

Input : 3mm Int Consultant or contract (US\$15 000)

Output: Report on global and regional data and images available; actual data collected or links established, approaches to use discussed (RS on land cover, Comparison GAEZ/actual land use, revised GLASOD, SOTER (including new world topo-base prepared), socio-economic causes and impacts (FIVIMS database, land use database, population and poverty indicators use outputs component I) and institutional indicators if feasible.

#### **2.1.2 International Workshop (parallel/back-to-back with Steering committee workshop LADA, see 1.1.2)**

Input: Global players (ISRIC and AGL) for soils and terrain, GLCN and SDRN/FRA , JRC for RS and land cover, CIESIN WRI and/or FIVIMS (ES) for population and poverty. DEWA (UNEP) for environmental indicators. Regional RS/dryland centres to be invited: ACSAD/ICARDA, South Africa, Aghrymnet, OSS, EMBRAPA, JRC, EROS plus pilot country representatives.

Same as 1.1.2

Output : Agreement on GLADA methodology and task distributions and costs.

### **2.2. Carrying out Global and regional Land Degradation studies at low resolution. (Month 1 – 33)**

The study will cover three aspects: (i) Land (Soil/Terrain/Climate), (ii) NDVI analysis and (iii) Socio-economics. (i) and (iii) of these global studies will be funded at US\$120 000, the NDVI related study (ii) at 472 675 while the interrelation among each aspect should be jointly investigated and covered by a 150 000 US\$ study complemented with inputs from all the institutes/projects involved. Prior to this, RS tests will be run in NW China and Kenya (100 K)

<b>Work Packages</b>	<b>Budget (US\$)</b>
Preparatory Remote Sensing study (NW China & Kenya)	100 000
Global Soil and Terrain and Land Degradation	120 000
NDVI Analysis and Global hotspot generation	472 675
Global Socio economic drivers study	120 000

Detailed Agric. Intensification & Land Cover change study	200 000
Integration of different layers & Reports	150 000

These studies will result in a global object oriented relational database that contains:

- (1) a global Terrain Model according to SOTER criteria (JRC/ISRIC) with enhanced information on soils (SOTER updates) and the state of soil degradation (joint ISRIC/WOCAT) in dryland countries.
- (2) Low resolution analysis of NDVI deviation globally drawing on existing satellite imagery (1979/80ies/2000) and existing MA analysis ( Centre for Geoinformation).

The latter would be carried out in close consultation with GLCN, JRC, EROS and other regional RS Centres.

This would include:

### **2.2.1. Pilot remote sensing projects case studies (pre-LADA+Month 1 – 3)**

#### **1a) North West China Pilot study to test NDVI and related Indicators for the global study (in kind contribution from ISRIC - 50 K)**

Completed:

- Data entry and handling procedures for GIMMS, LANDSAT TM 1990-2000, GLC 2000, SOTER, climatic data;
- Derivation of algorithms for: statistical analysis of NDVI indicators of land degradation - NDVI max, min, mean, sum, CoV; temporal trends for annual, growing season and non-growing season; modelling, mapping and spatial analysis of indicators;
- Derived biophysical parameters: fraction of photosynthetically active radiation absorbed, ratio vegetation index, rain use efficiency;
- Wavelet analysis for degraded and not-degraded areas.

Still to do:

- Deviation from local norms by integration of SOTER and Land Cover 2000 data. Requires SOTER analysis for the pilot area.

#### **1b) Kenya (100 000 US\$) (pre-LADA+Month 1-3)**

1) extend the Africover land cover mapping of Kenya to few additional classes of direct relevancy to LADA and visible on Landsat images ; classes could be for eg:

- Wind erosion (if present and mappable)
- Salinization (if present and mappable)
- Large water erosion patterns (networks of gullies)
- Forest clearing/ agriculture encroachments
- Over grazing patterns around water holes
- Afforestation plots

2 extend the land cover changes mapping to include new information such :

Identification of the non agriculture classes that were changed into agriculture classes and vice versa

Identification of land cover changes in the urban areas

Identification of forest being cleared between the different dates

Identification of changes on soil carbon sequestration GEFSOC project

3) map at least on a pilot basis both population and livestock density based on a correlation between these indicators and land cover/landform classes. Also look into the Global Livestock Database (AGA) and the global population density maps.

4) evaluate the cost efficiency of land cover maps and land cover changes maps and derived products ( see 1 to 3 above) for the identification of land degradation hot spots (to be delivered by ISRIC through NDVI analysis) and

5) assess different land degradation levels (based on Land Degradation previsions - ISRIC - and on actual field checking - Kenyan consultant/ISRIC and Land Use Stratification - AGLL) .

The proposed work above could be limited to few districts if too much work is to be involved; it would need to compare Africover and GLCN products with land degradation data assessed in the field and from reports and expert knowledge.

Total budget to be divided GLCN - ISRIC-Kenya consultant-AGLL/SDRN: US\$100 000 (Provisional estimate GLCN US\$25 000 (plus US\$25 000 own resources) - ISRIC – US\$40 000 Kenya Inst/Cons US\$25 000 AGLL US\$10 000).

On the basis of the findings of the above GLCN would then expand the detailed study to countries/hotspots in drylands in Africa (Kenya and South Africa), the LADA pilot countries and other dryland countries up to the budget agreed (US\$200 000 LADA + US\$200 000 GLCN) during the implementation phase (see section 2.4).

## **2.2.2 Global Land Degradation Study ( Month 3 – Month 33)**

- 1) **Global trends analysis** of NDVI-derivatives; output global spatial and temporal patterns of biomass at 8 km resolution – *Output Month 6: preliminary identification of hotspots by statistical patterns.* 6 months (Month 3-9).
- 2) **Quality indicators of hotspots** – stratification using SOTER and land use change. *Output month 12: secondary analysis of hotspots. First report on global patterns.*(Month 6-12).

### **2.2.2.a Global Terrain Model according to SOTER criteria with enhanced information on soils and state of soil degradation in drylands (ISRIC/JRC).**

The application of the Wishmeyer equation using actual land cover (main crop/main cover) and SOTER\_soils and the global DEM/SOTER-slope as a pressure indicator for land degradation at global scale.

The use of GLASSOD ASSOD and SOVEUR and incorporation of info that still appears useful.

Finally, to incorporate such layers as the extent of radioactive pollutants (Chernobyl map at JRC) and of volcanic eruptions with widespread sedimentation (e.g. Philippines) and other layers that may be of local interest (Tsunami/other disaster risk) but that are mappable at global scale. (Month 6 -12) .

### ***2.2.2.b Low-resolution (8km footprint) analysis of NDVI indicators (ISRIC in close consultation with GLCN, JRC, EROS, and regional RS centres)***

#### **Outputs**

Month 9: Global trends analysis of NDVI derivatives – preliminary identification of hotspots by statistical patterns of biomass.

Month 15: Quality indicators of hotspots – secondary remote sensing analysis by stratification according to SOTER and GLC2000. First report on global patterns

Month 18: Prioritization of hotspots by internal and external (social, economic, political) characteristics defined in close consultation with FAO and other partners. Expert system applied to remotely sensed data to identify hotspots for further stages of analysis.

Month 24: Characterization of hotspots by visual analysis of LANDSAT 30m data (drawing upon 2.3.1 GLCN Kenya pilot) and all other available information – e.g. updated GLASOD. Second report on global patterns.

### ***2.2.2.c Validated Global Framework for LADA (ISRIC with country partners).***

Month 24: Selection of sample areas for field validation; preparation of base maps and remotely sensed interpretations; preparation of field manual for assessment of land quality information that can be measured quickly and reliably; workshop with national partners.

Month 30: Field validation and characterization of hotspots (international teams) national team costs covered under item 2.4

Month 33: Global framework. Field reports incorporated in final mapping units

### ***2.2.3. A study on socio economic drivers of land degradation at regional and national level (Month 4-33)***

This exercise will draw on the stratification achieved under 1.3 and expand it qualitatively and quantitatively. Global relationships and correlations will be explored in preparation of activity 4.1 (modelling) . At sub-national level. historical land use changes

FAO -Agro Maps, comparison AEZ/actual land use defining input/management levels, Irrigation effects, Accessibility, Population Density, Poverty factors will all be explored.

## Inputs

Prepare report and databases on the above (FAO eventually with assistance IFPRI): US\$120 000

Outputs 2.3: Report, Databases and CD ROMs with global land (soil, vegetation) degradation status and socio-economic drivers identified. Manual prepared for the use by national and regional centres.

### **2.3 Carrying out National/Regional LADA studies, including training and integration with GLADA results and identification and categorisation of areas at greatest risk of dryland degradation**

#### **2.3.1 National/Regional LADA studies at higher resolution preferably 1km\*1km or 5 by 5 minutes (if 1km not feasible) including training and integration with stratification results above (Months 10 – 20)**

These studies undertaken at greater detail than the preliminary one undertaken in 2.3 and 1.3 will in particular enhance the land cover/land use analysis, but also improve the soil and land degradation information. Centrally undertaken with SDRN/GLCN and the Africover/Asiacover for land cover and land use changes. The Joint Research Centre (JRC) would handle this for Europe (own inputs) and the National Center for Earth Resources Observation & Science (EROS) for N. America (own inputs) in cooperation with GLCN. Includes links to stratified global land use management units (agricultural intensification) and modelling. Intensity and changes in agricultural land use will be documented and major land use changes (urbanization and rain forests) highlighted.

Input: Total: US\$200 000 for the six pilot countries and for the hotspots identified globally in 2.3 with equivalent contributions from GLCN.

#### **2.3.2 Interim Workshop to get feedback on GLADA and Regional GLADA and integration of this feedback in regional databases (Months 21 - 22).**

This workshop should bring together the pilot countries and selected dryland countries region to check and enhance the results obtained in 2.5.

GLADA workshop in Rome inviting all major Dryland Countries (EU/N. America own funding)  
Total: US\$180 000. Proceedings Report (US\$10 000).

#### **2.3.3 Checking GLADA results in six pilot countries plus preliminary results of national local studies incorporated. (Month 22 – 30)**

These studies are carried out in the six pilot countries and would refine the results obtained under 2.2 and also draw on experience in the region under 2.6.(US\$287 143 for national studies and 3 international consultants for 2 months each 6 x US\$10 000 = US\$60 000 and national consultants 20pm total US\$60 000).

### **2.3.4 Preparation final GLADA report (Month 31 – 33).**

Three main institutes/projects (ISRIC/GLCN and FAO) to integrate their results.

Inputs: US\$150 000 for the integration by the respective institutes, to be finalized by an International Consultancy (3 pm US\$30 000) for integrating results global, regional and national results and preparing final report. Editor (also for 2.6 and 2.9) 3mm TCDC US\$9 000.

### **2.3.5 International final GLADA workshop (Month 34)**

To present the full GLADA results in an international setting. Organized by FAO/UNEP. Cost US\$50 000 (Travel/DSA). Final report preparation (International Consultant 2pm US\$20 000) and US\$40 000 for the publication of the final GLADA product CDROM.

## **COMPONENT III:**

### **CARRYING OUT LOCAL ASSESSMENTS IN HOT SPOTS AND BRIGHT SPOTS IN PILOT COUNTRIES**

**(OUTCOME: detailed local assessments and analysis of land degradation and its impact in the pilot countries)**

#### **3.1. Developing capacity of national (pilot country) professionals to carry out detailed assessments of land degradation, related to key developmental questions such as livelihoods, poverty and food security**

##### **3.1.1 Stakeholder workshop Establish National LADA Task Force (in Tunisia, Cuba and South Africa and revive existing ones in China, Argentina and Senegal) (Month 6-8)**

These local workshops will establish or revive (depending if countries participated in the pdfB phase) the national network of local ministries, institutes, universities, NGOs and other stakeholders in the LADA process and establish a National LADA task force. The project will contribute with 6 weeks int. consultant (US\$15 000) + local costs and travel for the workshops (US\$105 000).

**Total US\$120 000**

#### **Outputs:**

- All stakeholders informed. Coalition of scientists and institutions concerned formed.
- Initial study of User needs.

Field sites chosen. At least one site where dryland degradation is causing substantial concern at global (biodiversity, climate change) and local development level

##### **3.1.2 Training in basic land degradation assessment techniques (Month 5-18)**

As an essential support for capacity building in land degradation assessment techniques participating countries will be involved in training courses established by WOCAT and the University of East Anglia.

10 days WOCAT Training (Argentina/Cuba and Tunisia/ Senegal) US\$70 000 (University Bern). For local expenditures US\$10 000 x 2 = US\$20 000.

WOCAT and Visual Soil Assessment Training in-country (US\$101 766 )

**Total US\$149 400**

Local Assessment techniques (University of East Anglia) combined with Visual Soil Appraisal (Int. Consultant) in University of East Anglia for one month.

**Total cost estimate US\$230 185**

**Outputs:**

Capacity building in pilot countries in local land degradation assessment techniques.

**3.1.3 Establishing LADA Training Centres in the pilot countries (Month 20 -24)**

On the basis of 3.2, seed money and assistance will be provided to five LADA training centres which could develop into regional LADA training centres. Training of trainers and Curriculum development. Enhanced local assessment techniques and land management information. (Total costs: US\$300 000)

**3.3. Carrying out pilot detailed assessments in hot spot and bright spot areas and recommending how to scaling-up the findings to national level**

**3.3.1 Local surveys (2- 6 sites per country) (Cuba and Tunisia 2; Senegal 3, Argentina and South Africa 4, China 6) (Month 19 – 35)**

On the basis of the methodology developed under 1.1 local participatory surveys will be undertaken in each of the participating countries.

**The main outputs will be:**

- Trained staff undertakes user need assessment in every pilot area
- Focal Institutions provide information forum for policy makers and national planners
- Full assessment and analysis of each pilot site including indicators that can be extrapolated nationally.
- Local workshop in each site.
- Reports, Information base, Recommendations published.

A breakdown of costs involved is given below:

work packages	US\$
Total (21 sites) Subcontracts national institutes	930 000
Backstopping visit Int. consultants (3 visits/country one week each)	80 000
Support of pc and related equipment	114 000
Scaling up of local findings using results of component 2 by National consult.	150 000
Database establishment (national)	36 000
Database support (international)	30 000

### **3.3.2 Six Local/National workshops to get feedback findings (Month 36 – 39)**

The techniques and approaches and the results of the local studies will be documented and shared with interested authorities in the pilot areas by organizing local and/or national workshops. (Total cost: US\$210 000) plus Technical Assistance International consultants (US\$60 000).

**Total US\$270 000**

### **3.4. Analysing national and local level policy processes for renewable natural resources information, determining suitable entry points for land degradation information, and making available and operational the information system for national and district level planning and practice**

#### **3.4.1 Policy analysis of results, policy implications, policy guidelines made (national institutes) (Month 36 - 42)**

The findings of the local pilot studies will be analyzed and recommendations for land management options which may be required to combat desertification will be prepared. International consultant 1pm (US\$10 000)

Input: National institutes subcontracts: (US\$90 000)

Output: 6 Standard reports (US\$30 000)

## **COMPONENT IV:**

### **CARRYING OUT A MAJOR ANALYSIS AND PREPARATION OF AN STRATEGY FOR GLOBAL ACTION**

**(OUTCOME: proposed global action plan, incorporating main findings from the project, conclusions and recommendations for further action)**

#### **4.1. Developing and testing the framework for analysis of critical components and driving forces for land degradation based on DPSIR (e.g. VU A'dam model) (Month 25 - 34)**

This modelling exercise would use findings of the global and local studies to correlate drivers, status and responses (in parallel with DeSurvey Project). This would form the basis for building scenarios.

<b>Work Packages</b>	<b>US\$</b>
Subcontract (VU A'dam)	50 000
Testing pilot countries (Sub contract national institutes)	60 000
Finalization model and report (Subcontract VU A'dam)	50 000

#### **4.2. Collating and synthesizing information on best practices for land conservation, and preparing a report including policy and resource needs for implementation of the best practices identified (Month 34 - 39)**

Locally prepared reports in each of the pilot countries gathering case studies on success stories and best practices. Lessons learned from the pilot studies and recommendations for mitigation and rehabilitation.



	US\$
National Consultants	60 000
International Editor	9 000

#### **4.3. Involvement with UNCCD, UNCBD SRAP and NAP (Month 1- 48)**

Throughout the project close contacts will be maintained between the LADA project and the UN-CCD and UN-BCD and their relevant technical (TNP-1), national and regional bodies (NAP and SRAP). All these are budgeted under travel and backstopping FAO.

Work Packages	US\$
Travel FAO/Consult.	50 000
Pamphlets preparations	50 000
National Action plans (policy, laws, resource mobilization)	50 000

#### **4.4. Global Action plan prepared (Month 44 - 47)**

Final report of the project incorporating main findings, conclusions and recommendations for further action (Int. Consultant 3pm, US\$50 000)

#### **4.5. Final packaging, communication and exchange of land degradation information globally, regionally and nationally, Final Steering Committee Meeting GEF-UNEP-FAO (Month 48)**

Results of the global, regional and national exercises will be presented to members of the steering committee and recommendations for future steps will be done. Meeting cost: US\$50 000. Including proceedings.

## ANNEX E: PUBLIC INVOLVEMENT PLAN

### PARTNERS AND THEIR ROLES IN THE LADA IMPLEMENTATION

The PDF-B exercise has already allowed the participation of UN Agencies, international Research Centres and Centres of excellence, National Ministries and Organizations and local stakeholders as full partners *LADA*. The latter involved men and women of target communities, farmer associations, traditional leaders, pastoralists and agro-pastoralists. They will all contribute directly to the implementation of the project and be consulted by the other partners in project decision forums.

### DIRECT STAKEHOLDER INVOLVEMENT

One of the most difficult steps in assessing and combating land degradation is to create a dialogue among stakeholders. Without this negotiation process, any assessment is prone to remain yet another report on which no action will be taken. The problem is not only to reach the grassroots level, but also to bring the different ministries involved (Environment, Agriculture, Forestry, Livestock, Water resources and Planning) to decide on their responsibility in land degradation issues. Therefore the *LADA* strategy developed includes two specific steps that take this into account as a first step where a user needs assessment is undertaken and a national task force is established and in the fifth step where a participatory local assessment of land degradation is foreseen. Moreover International awareness and country networking needs to be achieved as was already initiated during the PDF-B phase. Specifics of stakeholder involvement as already undertaken by *LADA* are given below and will be a basis for expansion under the project.

During the *LADA* PDF-B phase, user needs and national land degradation problems were discussed with the widest national and local audience: Government, NGO, farming associations, mass media, international and regional bodies were brought together in a national workshop that took place in each of the three pilot countries (Argentina, China and Senegal). This resulted in an inventory and prioritization of perceived problems linked to land degradation and in an estimate of their economic, environmental and social impacts. It included a user-needs survey identifying information products required for improved decision making at all levels. And resulted in the establishment of a National Land Degradation Task Force, involving representatives of all concerned stakeholders, existing networks and technicians.

At the local level stakeholders were involved too during the PDF-B phase, particularly in China where a local level *LADA* stakeholder consultation/training workshop was held, 7-10 April 2003, in Yanchi County, Ningxia-hui Autonomous Region. The workshop participants included: a) representatives from each of the six proposed pilot assessment study areas; and b) experts from the key national technical agencies that would assist with individual pilot assessments. The participants were introduced to the *LADA* global programme, the *LADA* DPSIR assessment framework and the steps involved in the pilot assessments. Similarities and differences between the 6 pilot areas were reviewed, and there was an initial discussion on: a) the causes (driving forces and pressures) of dryland degradation in China; b) the ecological and socio-economic consequences (impact); and c) alternative ecological and socio-economic indicators that could be used for the local level assessments

Four regional *LADA* workshops were organized during the PDF-B phase: one in Bangkok, Thailand for countries of Central and Southeast Asia, a second one in Dakar, Senegal for African countries, one in the Caribbean (Jamaica) with support of the Argentina pilot team and one in the Near East region (Syria). In total nearly 60 different countries sent representatives to these workshops to discuss the *LADA* approach and its national application.

During the PDF-A and PDF-B phase four international *LADA* workshops were organized in Rome (December 2000, January 2002, November 2002 and May 2004). More than 40 participants attended each workshop among which country representatives from Argentina, Brazil, Burkina Faso, China, Ethiopia, India, Senegal, South Africa, The Philippines, Tunisia and Uzbekistan; centres of excellence (University of Amsterdam, Bern and Vienna); international organizations (UNEP, UNESCO, WMO, UNCCD, GM, World Resources Institute, ISRIC, ICARDA, IFAD) and consortia such as WOCAT and the Millennium Assessment. In addition a number of international authorities on land degradation questions were invited to contribute on specific subjects.

#### OTHER PUBLIC AWARENESS RAISING INITIATIVES FORESEEN.

In addition to the local, national and international workshops organized referred to above three initiatives were taken to raise further public awareness raising during the PDF-B phase which will form a sound basis for the *LADA* project to built on and expand. These are the publication of a *LADA* brochure in 4 languages (Arabic, English, French and Spanish), the establishment of a *LADA* web site that contains more than 700 indexed documents, and a *LADA* virtual Centre that provides a platform for a network that permits exchange of country information. At the international level an Electronic Conference on Indicators for Land Degradation Assessment was launched in October 2002 and results published as a FAO report, this exercise is to be repeated under the project.

#### OVERVIEW OF INTERNATIONAL STAKEHOLDERS

Role/ Name	Main Interest	Specific Interest in <i>LADA</i>
<b>Implementing Agency - UNEP</b>	Plays a central role in major environmental assessments	LADA is consistent with UNEP's mandate and strategy for environmental observing and assessment (ref. the 1972 Stockholm action plan, and Agenda 21, Chapter 38) to analyse the state of the global environment, assess global and regional environmental trends, and provide early warning on environmental threats, based on the best scientific and technical capabilities available. Moreover, LADA partnership contributes substantively to the land module of UNEP's integrated GEO assessment framework.  LADA addresses the action Plan strategic objective of "promoting multi-country cooperation directed to achieving global environmental benefits

<b>Executing Agency - FAO</b>	Plays a central role in major natural resources and environmental assessments and management	<i>LADA</i> will emulate the global assessment projects by addressing international land-related programmes and processes, especially the building of capacity to address land degradation. The project is consistent with the strategic framework of FAO and addresses the three interrelated global goals of FAO, particularly the objectives of food security, sustainable production and natural resource conservation
<b>Technical Advisory Committee</b>		
<b>ICARDA</b>	The International Centre for Agricultural Research in the Dry Areas (ICARDA) is one of the 15 centres of the CGIAR. Based in Aleppo, Syria and is representing all CGIAR Centres	Direct links with ongoing research agenda in land related programmes and projects in drylands and particularly in Africa Desert Margin initiative and the Dryland Initiative for WANA (with GM).
<b>ACSAD</b>	An important regional entity supporting Dryland countries of West Asia and the Near East	Direct links with ongoing research and particular expertise in dryland assessments through remote sensing and soil inventories in West Asia and Near East Region.
<b>ESA</b>	European Space Agency	Data provider and analysis of global remotely sensed images.
<b>OSS</b>	Observatoire du Sahel et du Sahara	Expertise in Monitoring Desertification covering a wide range of North Africa and Middle east countries
<b>EROS Data Centre</b>	The Earth Resources Observation Systems (EROS) Data Center (EDC) is a data management, systems development, and research field center for the U.S. Geological Survey's ( <a href="#">USGS</a> ) <a href="#">National Mapping Division</a> .	Direct links as data provider and analyst of global databases and remotely sensed images.
<b>Essex University</b>	Home of three major ESRC-funded projects, <a href="#">The Data Archive</a> , the <a href="#">Institute for Social and Economic Research</a> and <a href="#">Qualidata – Qualitative Data Service</a>	Specific expertise in conservation of biodiversity.
<b>SOW-VU Amsterdam</b>	SOW-VU is a multidisciplinary research centre with a majority of economists.	Specific expertise in modelling and linking land degradation with socio-economic factors.
<b>DEV/ODG/ East Anglia</b>	DEV/ODG is one of the UK's premier development studies teaching and research institutions covering both the social and natural sciences: from economics, sociology, gender and politics - to environmental change, soil science and agronomy.	Specific expertise in natural resources conservation world-wide.
<b>ISRIC</b>	ISRIC is the World Data Centre for Soils of the International Council for Science and is accredited at the UNCCD	Specific expertise in global soil and terrain and land degradation mapping (SOTER) and analysis of remotely sensed data.
<b>WOCAT</b>	WOCAT was established as a global network of Soil and Water Conservation specialists. It is organised as a consortium of national and international institutions and operates in a decentralised manner	Global expertise and networks on conservation techniques and approaches. Mapping of land degradation and land conservation.

<b>TPN-1</b>	Desertification Monitoring and assessment (TPN-1) network was established by UNCCD to enhance the desertification monitoring and assessment capacities of countries.	Networking capacity and expertise in land degradation drought and desertification led By China as focal country of this TPN
<b>CST and its Expert group</b>	the Committee on Science and Technology (CST) of UNCCD provide it with information and advice on scientific and technological matters relating to combating desertification and mitigating the effects of drought.	CST is multi-disciplinary and open to the participation of all Parties. The CST Bureau selected 25 members of the Group of Experts who advise <i>LADA</i>
<b>DESERT-LINK</b>	A consortium of European Universities with specific expertise in networking in land degradation and desertification	Specific expertise on indicators of land degradation and building of networks in the subject matter.

## NATIONAL AND LOCAL STAKEHOLDERS: COUNTRY EXECUTING TEAMS

### CHINA

Lead Institute Name: National Bureau to Combat Desertification, State Forestry Administration/Secretariat of China National Committee for the Implementation of UN Convention to Combat Desertification (CCICCD)  
 Director: Mr. Liu Tuo (Director General)

Number of Personnel and main qualifications:

The highest coordination body of China's combating desertification is China National Coordinating Group to Combat Desertification or CCICCD. The Office of the Coordinating Group or the secretariat of CCICCD is located on the premise of the National Bureau to Combat Desertification of the State Forestry Administration. The National Bureau is responsible for implementation of the National Action Programme in China and the undertaking of combating desertification across the country. The National Bureau to Combat Desertification has an authorized staff number of 20 people. The administration body is set up in the State Forestry Administration. The bureau's role and function is to administrating desertification combating across the country.

Associated Institutes, Ministries and NGOs:

China National Coordinating Group to Combat Desertification/CCICCD is composed of the following ministries (sectors): Ministry of Foreign Affairs, National Development and Reform Commission, Ministry of Commerce, Ministry of Science and Technology, Ministry of Finance, Ministry of National Territory and Natural Resources, Ministry of Railway, Ministry of Communication, Ministry of Water Resources, Ministry of Agriculture, State Forestry Administration, People's Bank of China, State Taxation Administration, State Environmental Protection Administration, Chinese Academy of Sciences, Office of the Leading Group for Poverty Alleviation, Office of Integrated Agricultural Development Leadership Group of the State Council, China Meteorological Administration. The Coordinating Group generally organizes a yearly meeting for each year, or hold occasional meetings when needed. Usually the Group-leading agency will convene the meeting for the Coordinating Group or CCICCD. It will invite the State Council leader who is in charge to attend the meeting. The liaison system has

been set up for the Coordinating Group and CCICCD with each liaison officer from each ministry.

Coordinating groups or leading groups for combating desertification has also been set up in 14 key provinces/autonomous regions/municipalities. Therefore, the effective management system for combating desertification from central to local level is formed, with an incremental working staff in the provinces and counties.

Other institutions (resources) of China National Coordinating Group to Combat Desertification and CCICCD are as follows.

- The Senior Expert Group of China National Coordinating Group to Combat Desertification
- Liaison Officers of China National Coordinating Group to Combat Desertification
- Independent Expert Roster for China's Combating Desertification
- China National Research and Development Center of Combating Desertification
- China National Training Center of Combating Desertification
- China National Desertification Monitoring Center
- China National Sand Control and Desert Industry Society
- Desertification Combating Agencies in the Other Various Sectors

## SENEGAL

Lead Institute Name: Centre de Suivi Ecologique (Senegal)

Director: Amadou Moctar Niang

Associated Institutes, Ministries and NGOs:

- Institut Sénégalais de Recherches Agricoles (ISRA)
- Institut des Sciences de l'Environnement (ISE)
- Direction de l'Environnement et des Etablissements Classés
- Direction de l'Agriculture
- Direction de l'Elevage
- Direction des Eaux et Forêts
- Direction des Parcs Nationaux
- UNCCD Focal Point
- Conseil National de Concertation des Ruraux (CNCR)
- UICN
- ENDA

## TUNISIA

Lead Institute Name: Ministry of Agriculture, Environment and Water Resources (DG/ACTA)

Director: H. Farhat (D.General)

Associated institutes, Ministries :

- DG EQV, IRA – Medenine, DGGR.
- NGOs: UTAP –ATSS

## ARGENTINA

Lead Institute: Secretaria de Ambiente y Desarrollo Sustentable  
Director Pedro Pardez

### Associated Institutes:

- Instituto Argentino de Investigaciones en Zonas Áridas.
- Universidad de Buenos Aires.
- Universidad de Córdoba.
- Instituto Nacional de Tecnología Agropecuaria.
- Instituto de Suelos. Centro de Investigaciones en Recursos Naturales (INTA)

## SOUTH AFRICA

Lead Institute Name :National Department of Agriculture  
Director:  
Institute for Soil, Water and Climate (ISWC)  
Director:

### Associated Institutes:

- NGO: Environmental Monitoring Group
- Department of Environmental Affairs and Tourism

## CIVIL SOCIETY INVOLVEMENT

NGOs of the participating countries affected by desertification and the loss of biological diversity have a catalytic role in the LADA project, particularly in components 3 and 4. They function best at the grassroots level and work with farmers and other resource users to assist in the development of participatory approaches for assessing agricultural and environmental problems and solutions related to land degradation. They have been associated to the national LADA task force during the PDF-B implementation in some pilot countries. The project will draw on the expertise of local NGOs such as the La Fundación para la defensa del ambiente (Argentina), le Conseil National de Concertation des Ruraux (Senegal), Environmental Monitoring Group (South Africa), as on International ones, such as the IUCN in Senegal.

## ANNEX F: AVAILABLE REFERENCE DOCUMENTS AND OUTPUTS FROM PDF-B

Annotated list of all documents and outputs from PDF-B stage

### **Published Outputs**

FAO 2002. Land degradation assessment in drylands – *LADA* Project. Meeting Report 23-25 January 2002. *World Soil Resources Reports* 97, UN Food and Agriculture Organization, Rome. ISBN 92-5-104797-9

- this FAO report sets out the main statements at the *LADA* meeting in Rome and summarises the principal conclusions on progress towards the achievement of a full *LADA* GEF project.

FAO 2002. Land degradation assessment in drylands – *LADA*. Information Brochure. UN Food and Agriculture Organization, Rome. [In English, Spanish, French, Arabic]

- This is a *LADA* project information brochure, in English and Spanish. It highlights the goal, approach, expected outputs and impacts of the project.

Lantieri, D. 2003. Potential use of satellite remote sensing for land degradation assessment in drylands: application to the *LADA* project. Environment and Natural Resource Service, SDN, UN/FAO, Rome, 73pp.

- this report reviews information sources on the nature, extent, severity and impacts of land degradation on ecosystems and livelihoods in drylands as potentially assessed through satellite remote sensing. It concludes that in the near-term future remote sensing will increase dramatically in cost effectiveness and efficiency, but it will never 'see' or understand the socio-economic and cultural factors.

Van Lynden, G.W.J., Mantel, S. & van Oostrum, A. 2004. Guiding principles for the quantitative assessment of soil degradation: with a focus on salinization, nutrient decline and soil pollution. Report AGL/MISC/36/2004 UN Food and Agriculture Organization, Rome, and International Soil Reference and Information Centre, Wageningen, 61pp

- This is one of the principal PDF-B outputs intended to document the various types of quantitative assessment of soil degradation, as a guide to techniques for the main project.

### **Web Outputs**

<http://www.fao.org/ag/agl/agll/LADA/default.stm>, Land Degradation Assessment in Drylands - *LADA*

- This is the *LADA* project website, provides the information on the project background, FAQs, project documents, publications, progress reports, and useful links.

<http://LADA.virtualcentre.org/pagedisplay/display.asp>, *LADA* Virtual Centre

- this *LADA* project web-site provides the information and documents under the headings of : *LADA* Description and Implementation; Partnerships and Links; Methodological guidelines and reviews; Data and Information; Meetings, events and contacts; Fora and collaboration. Including:

#### **LADA Methodological Guidelines:**

Land Degradation Assessment in Drylands (*LADA*): Guidelines for a Methodological Approach - This paper summarizes the advocated *LADA* approach for land degradation assessments.

Stocktaking of Dryland Biodiversity Issues in the Context of the Land Degradation Assessment of Drylands (*LADA*): Selection and Use of Indicators and Methods for Assessing Biodiversity and Land Condition - Same as above but with emphasis on biodiversity indicators.



[Potential Use of Satellite Remote Sensing for Land Degradation Assessment in Drylands. Application to the LADA Project](#)

<http://www.fao.org/ag/agl/agll/lada/glada.stm> LADA Global Study (GLADA: Global Land Degradation Assessment):

GLADA Approach: PowerPoint presentation

GLADA Results: Climatic Hot spots and Bright spots in Drylands

GLADA Results: Sample GLASOD outputs for each country in Africa and with population affected.

GLADA Results: Soil Erosion Processes

Photo-library of soil erosion processes (English, French, Spanish)

Document (French and English) Mapping Soil Erosion processes.

<http://www.fao.org/ag/agl/agll/lada/pilot.stm>, LADA Pilot Studies

- This web-site provides the links to web-sites of pilot studies in Argentina, Senegal and other participating and potentially-participating countries. Including:

LADA Case Studies

Deteriorated Soils in Egypt: Management and Rehabilitation - The report highlights the assessment of soils subjected to salinization in Egypt.

Salt-affected soils: South Africa - The report discusses the assessment of saline soils in the republic of South Africa.

Salt-affected soils of Malaysia - The report discusses the assessment of saline soils in Malaysia

Sodic soils in the drylands of Kenya - The report discusses the assessment of soils affected by salinization and sodification in Kenya.

Salt affected soils in dryland ecosystems of Uzbekistan - Land degradation assessment in the salinized areas of Uzbekistan.

LADA Case study Mexico - The report discusses the LADA approach and results obtained in Mexico.

LADA pilot study: application of an ecosystem approach to degradation assessment of drylands in Argentina - Goods and services approach applied to Argentina.

<http://www.medioambiente.gov.ar/suelo/programas/lada/default.htm> Evaluación de la Degradación de Tierras en Zonas Áridas

- This website highlights the LADA implementation in Argentina (in Spanish)

<http://www.fao.org/ag/agl/agll/lada/arg/inicio.htm>, Evaluación de la Degradación de Tierras en Zonas Áridas: Proyecto LADA

- This is the Argentina LADA project web-site.

<http://www.cse.sn/>, Point focal (Sénégal) - Centre de Suivi Ecologique – (implementation)

- This is the web-site of LADA project implementation in Senegal (in French)

<http://www.fao.org/landandwater/agll/lada/emailconf.stm> LADA e-mail conference 9 October - 4 November 2002

This four-week e-conference discussed four themes: methods and indicators; national level indicators and linking local to national level assessment; local level indicators; global level indicators, monitoring

network, and scaling-up and -down issues. 143 people subscribed and 35 of them people contributed to the conference.

### **CD-ROM: Properties and Management of Drylands**

A CD-ROM is at an advanced stage of preparation. It links relevant websites in a systematic approach. Major sections include:

- The World's Drylands

- Sub-Regions: Information – with country studies, guides, fact sheets, National Environmental Profiles, UNEP-GRID State of Environment reports

- North America

- South America

- Africa

- Europe

- Asia

- Australasia

- Natural Resources in Drylands – with technical summaries, country studies, process analysis and description

- Climatic conditions and trends

- Geomorphology

- Soil resources

- Water resources

- Forest and tree resources

- Vegetation types

- Animal species, races and biodiversity issues

- Energy resources

- Population and Economy of Drylands – identifying the major websites for information

- Population status and trends

- Settlement pattern and historical outline

- Rural living conditions

- Livelihood and food security

- Poverty in drylands

- Economic and poverty indicators

- Constraints in terms of land and water management

- Access to resources/tenure issues/rights

- National policies impact on dryland communities

- Land Management Practices and Strategies for Drylands – includes case examples, information sources and experts to contact (with e-mail addresses)

- Main present land use systems and policies

- Biodiversity management issues and threats

- Management practices at different scales

- Documentation and evaluation of 'good land management practices'

- Proposed new land management strategies and tools

- Rural development

- Case studies and lessons learned

- Land Degradation/Desertification – Diagnosis and Assessment – main web-site information sources worldwide

- Definitions of land degradation/desertification and major impacts

- Causes and types of degradation and desertification

- Indicators

- Monitoring and assessment methods

LADA-project  
Restoration and rehabilitation  
Annex  
Pictures and Videos

Other Web-sites and Web Links

LADA and closely-related projects feature on 277 web-sites, found by using the phrase “land degradation assessment in drylands” through *Google* search engine. The more relevant are:

<http://www.gm-unced.org/FIELD/Multi/GEF/Global/lada.htm>. Land Degradation Assessment in Drylands (*LADA*)

-This web-site describes the nature of the *LADA* project and provides the links to *LADA* documents. The web-site is under the main web-site of the Global Mechanism of UNCCD.

<http://earthwatch.unep.net/desertification/index.php>. Desertification and Drought

-This web-site carries a brief description of *LADA* project and provides linkage to *LADA* web-site. The site is hosted by the United Nations System-Wide Earthwatch.

<http://www.gefonline.org/projectDetails.cfm?projID=1329>. Global - Land Degradation Assessment in Drylands (*LADA*)

- This web-site is under the GEF’s main site, provides the features of the *LADA* project and links to the PDF-B document.

[http://www.adb.org/projects/PRC\\_GEF\\_Partnership/news\\_events.asp](http://www.adb.org/projects/PRC_GEF_Partnership/news_events.asp). Land Degradation Assessment for Drylands (*LADA*)

- In this web-site the Asian Development Bank introduces the *LADA* project as a major event relevant to the PRC/GEF Partnership on Land Degradation in Dryland Ecosystems.

<http://www.unced.int/cop/cop6/CSTsubmissions.php>

-this web-site, hosted by UNCCD, provides links to *LADA* progress reports.

<http://www.wocat.org/news16.asp>. The WOCATEER (No. 6- Autumn 2002)

–This issue of WOCAT Newsletter highlighted the outline for further collaboration between WOCAT and *LADA*

### **LADA CD-ROMs**

#### Individual Papers and Documents

Benites, J 2002, From Soil Conservation to Conservation Agriculture. Paper presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- this paper highlights the shifting emphasis in conservation approaches and outlines the basic principles of Conservation Agriculture.

Berry, L 2003. Land degradation in China: Its extent and impact

- This paper reviewed the regional and national assessments of the costs and other impacts of land degradation in China, analysed the direct and root causes of land degradation, highlighted the responses to land degradation in China.

Brinkman, R 2002, Participatory and multi-stakeholder processes to assess pressures, impacts and identify response options to land degradation in dryland areas. Paper presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- The paper reviews the participatory methods and tools available for selection and adaptation to *LADA* purposes and needs. The paper also suggests establishing partnership between staff working on *LADA* and local communities and an effective international communication and information structure.

Griesbach J.C 2002, PAP/RAC erosion mapping methodology. Power-Point presentation at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

-this Power-point presentation gives the background, phases and achievements of the Soil Erosion Mapping Programme.

Koohafkan, P 2002, Approaches and partnership building. Power-Point presentation presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- This presentation reviews the global assessment of the state of the land & water resources; highlights the *LADA* and its PDF-B phase objectives; sets out the agenda and expected outputs of the meeting.

Koohafkan, A.P 2002, Draft conceptual framework for *LADA*-Indicator search and modeling approach. Power-Point presentation at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- This presentation reviews a list of indicators related to each topic of each component of *LADA* framework and puts these indicators in specific geographic and scale context of *LADA*.

*LADA* secretariat 2002, Issues that may need discussion in the Technical Advisory Group and questions that may help structure the discussion. A document to the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- To facilitate the discussion at the TAG workshop, this document sets out the questions related to the issues on information needs, process, capacity building, institutions and partnerships, networking, communication and public awareness strategies.

Lantieri, D 2002, Use of remote sensing for the *LADA* project. Power-Point presentation presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- This presentation includes a brief introduction on remote sensing, recent studies/experiences on the use of remote sensing for desertification, and potential use of remote sensing within *LADA* project

Lilin, C 2002, The socio-economic aspects of land degradation: factors and perceptions. Paper presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- The paper covers three issues: the role of structural socio-economic factors for land degradation; structural factors of land degradation and communication; tools achieving integration of perceptions of land degradation issues by different actors.

Liniger, H 2002, WOCAT – World Overview of Conservation Approaches and Techniques. Paper presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- The paper gives the mission of the WOCAT and its linkage with on-going international and national initiatives, and its potential contribution to UNCCD and *LADA*; the research needs on the assessment of degradation and good resource use are also highlighted.

Lloyd, B 2002, Landcare: a community-based approach to sustainable development. Power-Point presentation presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- This presentation introduced the Landcare initiative in Australia, the contents include background, approaches, achievements, problems and lessons learned from the decade of Landcare.

Mahler, P.J 2002, *LADA* and its associated activities: an extended implementation strategy. Paper presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- Based on the review of the major strategic options in coping with land degradation problems, the paper proposes a step-by-step process for priority setting and decision making.

Montanarella, L 2002, The European land degradation monitoring system. Paper presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- The paper highlights the new EU thematic strategy on soil and objectives of EC communication; introduces European Soil Database and its applications, as well as the model of Pan-European Soil Erosion Risk Assessment (PESERA)

Oldeman, R 2002, Assessment of methodologies for dryland land degradation assessment. Paper presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

-The paper reviews the methodologies of GLASOD and other similarly initiatives in the last decade; the methodologies identified at the earlier *LADA* workshop are also reviewed.

Planchon, F. L 2002, **Land degradation in Senegal**. Power-Point presentation presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- This presentation highlights the state, impact of and response to land degradation in Senegal; illustrates the role of geomatic in the assessment of land degradation Introduction.

Reijntjes, C 2002, Land degradation and low external input sustainable agriculture. Paper presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- This paper highlights the contribution of Low External Input and Sustainable Agriculture (LEISA) and Conservation Agriculture (CA) to reversing land degradation, increase production and to lower production costs and energy use.

Rydén, P 2002, The need to strengthen support to an integrated land degradation assessment. A speech delivered at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- The speech highlights the support of Global Mechanism of the UNCCD to *LADA* project, particularly on facilitating the linkage between regional networks on desertification monitoring and *LADA* project.

Shaxson, T.F 2002, Shifting views on land degradation. Paper presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- The paper restates the concern on land degradation, outlines the key factors in reversing land degradation and bases for effective and lasting improvement; the implications for *LADA* project are also discussed.

Stocking, M.A 2002, Land degradation and rehabilitation: philosophy and history. Power-Point presentation presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

This presentation highlights the lessons learned from past; presents some philosophical and contextual issues related to land degradation assessment; and maps out the important thematic components of *LADA*.

Sun, S 2002, Some aspects and methodology of desertification monitoring in China. Paper presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- The paper highlights the extent of desertification in China and presents the methodologies, activities, and progress on desertification monitoring in China.

Tengberg, A 2002, UNEP/GEF Statement for *LADA* workshop. A speech delivered at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- on behalf of UNEP/GEF, the speech outlines the needs and challenges that we are facing in developing *LADA*.

Velayutham. M 2002, Land degradation and restoration in India - an overview. Paper presented at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

- The paper highlights the soil survey, land rehabilitation strategy and programme in India

Vieira, S.R 2002. Land degradation assessment. Power-Point presentation at the Land Degradation Assessment in Drylands (*LADA*) meeting, FAO, 23-25 January 2002.

-this power-point presentation introduces indicators for land degradation assessment at farm, state and national levels, and some soil conservation projects in Brazil.

Yang, W., Zhang, K. and Yang, X 2002. Report of Land Degradation Assessment for the Arid land Areas in China (Initial Draft).

- This report reviewed the situation of degradation assessment in China, presented the results of need assessment and China's desertification combating programmes, recommendations were made regarding the development of monitoring system and experimental areas through *LADA* project.

*LADA* secretariat 2002, Land Degradation Assessment in Drylands (*LADA*) – First Progress Report

- The report summaries the progress made and problems encountered in the period of Jan -June 2002. The activities underway in the period include pilot studies, e-conference, *LADA* web-site and RS methodology.

*LADA* secretariat 2003. Land Degradation Assessment in Drylands (*LADA*) - Second Progress Report

- The report summaries the progress made and problems encountered in the period of July - December 2002. The activities underway in the period include *LADA* methodology development, awareness raising, technical workshop, pilot studies, socio-economic issues, project web-site, RS methodology, and high resolution land cover data.

*LADA* secretariat 2003. Guidelines for a Methodological Approach. Land Degradation Assessment in Drylands (*LADA*) (draft version 12 May 2003).

- This document outlines the rationale of *LADA* project and summarises the *LADA*'s seven-step approach.

L'évaluation De La Dégradation Des Terres Au Sénégal (Projet FAO Land Degradation Assessment (*LADA*) : Rapport Préliminaire)

## **Unpublished Meeting Reports**

*LADA* secretariat 2000, Report of an international workshop, FAO, Rome, 5-7 December 2000.

- This report summaries the discussions on PDF-A and background papers of *LADA* project and set out the statement on supporting further elaboration of the project by the preparation of a Block B grant proposal (PDF-B) for submission to GEF.

*LADA* secretariat 2002, Report of Technical Meeting Land Degradation Assessment in Drylands (*LADA*), FAO, Rome, 5 - 8 November 2002.

- This report summarises the seven-step methodology as agreed by participants, outlines expected outputs of pilot studies related to the issues raised at the workshop, clarifies the role of web-site and e-conference for information sharing and exchange.

*LADA* task force 2003, Land Degradation Assessment in Drylands, Report of the E-mail conference, Oct-Nov 2002.

- This two-part report summarizes the discussions of the e-conference. Part I is the conference report and Part II presents the extracts and summaries from contributions.

*LADA* task force 2003, Taller Nacional sobre Evaluación de Degradación de las Tierras en Zonas Áridas. Proyecto *LADA* 12 al 15 de mayo de 2003- Buenos Aires Argentina. (*National Workshop Programme of the Argentinean Task Force*)

**ANNEX G: SUMMARY OF PROGRESS ON LADA GUIDELINES, METHODOLOGY DEVELOPMENT, CASE STUDIES AND GLOBAL ASSESSMENT**

Due to the size of this annex, it has been included in a separate file - total of 13 pages with photos.



## ANNEX H: MONITORING AND EVALUATION PLAN

### INTRODUCTION

The objective of monitoring and evaluation is to assist all project participants in assessing project performance and impact, with a view to maximizing both. Monitoring is the continuous or periodic review and surveillance by management of the implementation of an activity to ensure that all required actions are proceeding according to plan. Evaluation is a process for determining systematically and objectively the relevance, efficiency, effectiveness and impact of the activities in light of their objectives. Ongoing evaluation is the analysis, during the implementation phase, of continuing relevance, efficiency and effectiveness and the present and likely future outputs, effects and impact.

The general and specific objectives of the project, and the list of its planned outputs, have provided the basis for this M&E plan. The specific objectives are to: (a) develop and implement strategies, methods and tools to assess, quantify and analyse the nature, extent, severity and impacts of land degradation on ecosystems, watersheds and river basins, and carbon storage in drylands at a range of spatial and temporal scale; (b) build national, regional and global assessment capacities to enable the design, planning and implementation of interventions to mitigate land degradation and establish sustainable land use and management practices.

The project will be evaluated on the basis of:

1. **Execution performance.** Monitoring will concentrate on the management and supervision of project activities, seeking to increase the efficiency and effectiveness of project implementation. It is a continuous process, which will collect information about the execution of activities programmed in the workplan, advise on improvements in method and performance, and compare accomplished with programmed tasks. This activity will be the direct responsibility of the Project Manager, in cooperation with the *LADA* Task Force and Management Team at FAO. See Table 1 for the execution performance indicators.
2. **Delivered outputs.** Ongoing evaluation will assess the project's success in producing each of the programmed outputs, both in quantity and quality. Internal assessment will be continuously provided by the Project Co-ordinator under the supervision of the Project Manager at FAO, and mid-term and final evaluations of outputs will be carried out by external consultants contracted by UNEP in consultation with FAO [and by consultants contracted by the Scientific Committee). See Table 2 for a summary of expected outputs by project objectives, and Annex B (the project logical framework) for a detailed list of project activities and corresponding outputs and indicators.
3. **Project performance.** Performance evaluation will assess the project's success in achieving its objectives (above). The project will be monitored closely by FAO and UNEP through semi-annual reports and quarterly implementation reviews as well as by the Steering Committee. How successful the project is will be evaluated at mid-term (after two years of project execution) and final (at the end of project execution) by external consultants contracted by UNEP in consultation with FAO. See Table 3 for a summary of the project performance indicators.
4. **Project impact.** Two major areas have been identified for impact assessment, namely: i) development of standardised and improved methods for dryland degradation assessment and ii) provision of best practice guidelines for dryland degradation assessment that will be

disseminated widely. Impact assessment in these two areas will depend upon the phases and milestones of the project. The tools, methods and indicators for measuring impact will be determined during an initial methodology workshop to ensure that a standardized framework is shared by all involved countries.

The rest of the presentation is in tabular form, as set out below:

Table 1. lists the indicators of project execution performance.

Table 2. describes inputs and expected outputs and their timings. See also the Activity Plan, Annex D.

Table 3 summarizes indicators of project performance.

Table 4 distinguishes the monitoring and evaluation responsibilities respectively of UNEP, FAO (*LADA* Task Force and Management Team), The Scientific Committee, Project Steering Committee and Regional Focal Country Nodes.

Table 5 sets out the monitoring and evaluation reports, their content, timing and responsibility.

Table 6 sets out the principal reports by area of activity, expected date, and drafting responsibility.

Further detail on stakeholder involvement, and on dissemination of information to a wider public, is provided in Annex E.

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### **Table 1 Indicators of project execution performance**

- *LADA* Task Force and Management Team at FAO are functioning efficiently, and are served by effective scientific advisors.
- The Task Force and the Scientific Committee is tracking implementation progress and project impact, and providing guidance on annual workplans.
- The Steering Committee is providing policy guidance, especially on achievement of project impact.
- Half-yearly and annual activity and progress reports are prepared in a timely and satisfactory manner.
- Half-yearly disbursement plans and half-year and annual financial reports are prepared in a timely and satisfactory manner.
- Performance targets are achieved as specified in the annual operating plan.
- Deviations from the annual operating plan are corrected promptly and appropriately.
- Disbursements are made on a timely basis, and procurement is achieved according to the procurement plan.

**Table 2 Description and timing of expected outputs by project objectives**  
(SEE ANNEX D: WORKPLAN AND TIMETABLE; ‘BEGUN’ MEANS WORK COMMENCED DURING THE PREPARATORY PHASE)

Must be read together with country implementation plans – will be completed as soon as received from countries

Objectives and inputs	Outputs	Start	Finish	Outcomes
1.	See prodoc			
2.	See prodoc			
3.	See prodoc			
4.	See prodoc			
.				

**Table 3 Indicators of project performance**  
(SEE ALSO ANNEX B)

**Indicators of improved needs-based and process-driven approach to dryland degradation assessment**

- Reviews of existing work completed and lessons drawn.
- An information system designed and tested.
- Information system is integrated into national planning and used to identify critical areas in the six pilot participating countries.
- An improved needs-based and process-driven approach to dryland degradation assessment accepted by participating countries.

**Indicators of baseline ecosystem (or sub-regional) and global assessments of land degradation for drylands undertaken and presented**

- Baseline data collated and accessible on a user-friendly platform.
- Baseline maps produced and widely available to for eco-regions and areas represented by participating countries.
- Nationally agreed lists of ‘hot spots’ and ‘bright spots’ identified, described and widely available.

**Indicators of detailed local assessments and analyses of land degradation and its impact in areas of especial environmental and socio-economic risks (‘hot spots’) and areas where degradation is controlled (‘bright spots’) undertaken, and through an information system, linked to policy at national level.**

- Relevant professional training and capacity building in detailed assessments and analyses undertaken.

- The needs of users of land degradation assessment and the operation of national-level integrated information system understood in all participating countries.
- Six pilot national assessments completed and evaluated for scaling up.
- An integrated information system is in place in the six pilot countries providing relevant data on land degradation for policy, planning and control interventions.

**Indicators of promoting action and decision-making for the control and prevention of land degradation in drylands using *LADA* products and networks.**

- A generic framework for the analysis of critical components in land degradation designed and demonstrated.
- Success narratives of land degradation control and prevention analysed and presented.
- Contribution of *LADA* to policy guidance at international, regional and national levels being demonstrated.
- *LADA* Scientists actively involved in UNCCD RAP, SRAP and NAP further development and implementation support.
- *LADA* scientists actively assisting implementation of GEF Ops.
- International partners in *LADA* fully engaged with *LADA* approach and at least three additional countries using *LADA* outputs.

**Table 4 Monitoring and evaluation responsibilities**

<b>UNEP</b>	<b>FAO (Task Force and Management Team)</b>	<b>Scientific Committee</b>	<b>Steering Committee</b>	<b>Regional Focal Country Nodes</b>
Monitor the agreed M&E plan in accordance with the terms of agreement with GEFSEC	Establish reporting guidelines for country leaders, and ensure that they meet reporting dates and provide reports of suitable quality	Receive half-yearly activity and progress reports, sub-regional coordinators' / advisors' reports, and all substantive reports from countries; and as a 'peer-review' group use them to annually review the progress of work in the project as a whole	Receive consolidated half-yearly activity and annual progress reports, and all substantive reports, and provide policy guidance to the project on any matters arising from a reading of these reports	Supply continuing M & E data as requested by FAO
Receive consolidated half-yearly and annual activity, progress and financial reports and copies of all substantive reports, from FAO	Review and comment on half-yearly and annual activity and progress reports, sub-regional coordinators' / advisors' reports, and all substantive reports submitted by countries	Advise FAO (Task Force & Management Team) on implementation problems that emerge, and on desirable modifications to the workplan for the succeeding year	Assist the FAO (Task Force) and Scientific Committee in developing linkages with other projects, thus ensuring the wider impact of project work	Assist FAO in carrying out special reviews
Task manager or deputy to attend and participate fully in general project meetings, and meetings of the Scientific Committee and SC	Prepare consolidated half-yearly progress reports and annual summaries for UNEP, and forward substantive and financial reports, with comment as appropriate, in a timely manner to UNEP	In particular, review progress and any problems in relations with stakeholders, affecting success in project impact	Provide overall guidance for the project implementation	Agree Impact indicators at regional, and national level
Engage and prepare terms of reference for independent M&E consultants to conduct the mid-term reviews and final evaluation	Carry out a programme of regular visits to countries to supervise activities, and pay special attention to those	Advise FAO on the		Submit agreed Indicators to FAO/M & E Unit

Facilitate the selective review of the project by STAP and/or GEFSEC	countries with serious implementation problems	appointment of internal STAT teams or recruitment of external scientific advisers, and on the need for specialized training courses
Carry out such other monitoring as is determined in collaboration with FAO (Task Force and Management Team)	Establish terms of reference for any scientific advisers (or internal STAT teams) to be engaged as consultants to advise on particular areas of expertise, and/or provide specialized training for participants. Receive and evaluate the reports of these advisers, and act on any problems noted within them	Monitor progress in the capacity-building programme of the project, and advise FAO (Task Force and Management Team) on steps to enhance this programme

**Table 5 Monitoring and evaluation reports**

This refers to the six-monthly administrative and financial reporting, with a fixed format to be respected by coordinators at the national and global levels, i.e. from country to FAO and from FAO to UNEP. FAO financial rules and procedures will be applied to all reports required under contracts stipulated with entities in the countries .

<b>Report</b>	<b>Format and Content</b>	<b>Timing</b>	<b>Responsibility</b>
<b>Activity and Progress Reports</b>	(Reports will use a standard format to be developed following the UNEP Progress Report model)		
Document the completion of planned activities, and describe progress in relation to the annual operating plan	Person reporting and Date  Activity name and accomplishments within each activity this half-year	Half-yearly	Country coordinators to FAO (Project Manager) for use as described in Table 3.4 (above)
Review any problems or decisions with an impact on performance	Targets for the next half-year  Comment on performance on progress toward project goals, and problems/constraints		
Provide adequate substantive data on methods and outcomes for inclusion in consolidated project half-yearly and annual progress reports	Report on any unanticipated results and opportunities, and on any checks to project progress  Any highlights		
The Project Implementation Review (PIR) reports		Yearly	UNEP Task Manager / DGEF to GEF Secretariat
<b>Consolidated Half-yearly Progress Reports</b>	(Reports will use a standard format to be developed following the UNEP Progress Report model)		
Provide a summary of half-yearly reports of progress, for UNEP monitoring and transmission	<b>Summary of Country Coordinators' reports and participating institutions</b>  Report on progress in each project activity, within each Country and in the project as a whole  Activities of scientific advisers and specialized training programmes  Summary of problems and proposed action	Half-yearly, within 30 days of end of each reporting period, but not required where a Consolidated Annual Summary Report is due	FAO (Project Manager) with input from National/ regional Coordinators for forwarding to UNEP and [Scientific Committee] and Steering Committee

	Highlights		
<b>Consolidated Annual Summary Progress reports</b>	(Reports will use a standard format to be developed following the UNEP Progress Report model)		
Presents a consolidated summary review of progress in the project as a whole, in each of its activities and in each output	A consolidated summary of the half-yearly reports, with evaluation	Yearly, within 45 days of end of the reporting period	FAO (Project Manager) [with Scientific Committee] forwarding to UNEP and Steering committee
	Summary of progress and of all project activities		
Provides summary review and assessment of progress under each activity set out in the annual workplan, highlighting significant results and progress toward achievement of the overall work programme	Description of progress under each activity and in each output		
	Review of delays and problems, and of action proposed to deal with these		
	Review of plans for the following period, with report on progress under each heading		
Provides a general source of information, used in all general project reporting			
<b>Financial reports</b>			
Details project expenses and disbursements	Disbursements and expenses in categories, format and documentation as set out by the FAO under the Contracts /Letters of Agreement (LoAs) to be stipulated	Half-yearly	All contracted institutions, to FAO (Project Manager)
	(Note; Reports to be prescribed under the LoAs will be developed so they could be compatible with UNEP form in Annexes 4A, 4B, 5A and 5B)		
<b>Summary financial reports</b>	(Standardized format, see Annex 4A, 4B, 5A and 5B)		
Consolidates information on project expenses and disbursements	Disbursements and expenses by category. Requirement for coming period [Annexe 5A]	Half-yearly, within 30 days of end of period	FAO Budget Holder ; cleared and forwarded to UNEP by Finance Division

**Table 6 Principal Reports by title, number, timing and responsibility.**

This refers to the technical/scientific reporting. The FAO Project Manager for *LADA* will provide a standardized format for technical/scientific reporting as soon as possible after the initial methodology workshop. Any additional scientific publication or related disseminated material must be attached to the national reports.

<b>Report, number and title</b>	<b>Format and content</b>	<b>Expected date</b>	<b>Responsibility</b>
Reports on particular aspects as listed in the workplan, Annex 2B	Content will follow guidelines provided by FAO ( <i>LADA</i> Task Force and Scientific Committee). There will be no standardized format	Periodic. Expected dates as below	National Co-ordinators to FAO (Project Manager) . Consolidated project-wide reports by the FAO (Project Manager) will follow certain reports, for forwarding to UNEP and SC 6 months after submission by countries)

## **ANNEX I: PRINCIPAL CONTRACTED PERSONNEL AND INSTITUTIONAL ARRANGEMENTS**

### **RESPONSIBILITIES OF PROJECT STAFF AND COUNTRY COORDINATORS**

#### **IMPLEMENTING AGENCY STAFF**

##### ***UNEP Task Manager (part-time)***

1. The Implementing Agency Task Manager in UNEP/DEWA will receive all consolidated progress reports, all substantive reports, and all financial reports from the LADA Coordinator of the Executing Agency, FAO. He/she will comment on them and report to UNEP/DGEF. He/she will be a member of the Executive Committee of LADA. He/she will be particularly responsible for monitoring project progress on behalf of UNEP, in accordance with the Monitoring and Evaluation Plan (Annex H), and report on this through the UNEP/DGEF to the GEF Secretariat.

##### ***UNEP/DGEF Focal Point at the LADA Steering Committee***

2. The particular task of the UNEP LADA Steering Committee Focal Point is to ensure compatibility between project activities and GEF goals and requirements. He/she will follow the process of the project for GEF purposes through regular consultation with UNEP Task Manager. He/she will be particularly responsible for identifying issues arising from the LADA project implementation that are valuable inputs for the GEF yearly project implementation review exercise (PIR).

##### ***UNEP Fund Management Officer (FMO) (part-time)***

3. The task of the Fund Management Officer is to review financial reports and requests from FAO, and ensure a smooth flow of funds according to the Disbursement Schedule. He/she will receive copy of financial reports directly from FAO LADA/Budget Clerk.

#### **LADA FAO STAFF AND CONTRACTED STAFF**

##### **LADA Project Manager, based at FAO HQ, Rome, Italy (full-time, FAO contribution)**

5. The LADA Project Manager will be released by FAO to act as manager of the project and will have the overall responsibility for project execution and coordination between the organizations, units and individuals within the project, as well as externally. He/she will be directly involved, with assistance of the the budget clerk, in the drawing up of contracts and in monitoring compliance with contract conditions, especially reporting schedules. He/she will have responsibility for arranging meetings of the Executive Committee, Steering Committee (virtually or otherwise) regional business meetings. He/she will act as the focal point for all formal correspondence and reports between Country coordinators and the LADA/CU. He/she will work closely with the Project Executive Committee on the conduct and development of the project, ensuring that reporting schedules are maintained, and assist in editing and disseminating project results, as required. In consultation with the budget clerk and the LADA FAO Advisory Committee, make travel plans and organize travel arrangements for project participants. He/she will give assistance and advice to the LADA project Country Coordinators. He/She will arrange for LADA internal Ad-hoc Scientific and Technical Advisory Teams for assisting country partners with problem issues. He will work in close cooperation

with the Technical Advisor and consult regularly with the PAIA to Combat Desertification which will act as an internal FAO advisory committee.

**LADA Technical Advisor, based at FAO HQ, Rome Italy (P3 full-time for three years paid by LADA project funds)**

6. Under the supervision of and in close consultation with the LADA Project Manager, the LADA Technical Advisor will assist in the execution of the project, arrange project meetings and review all technical work produced by the project and write progress reports. He/She will liaise directly with all participating countries and monitor the implementation of the workplans in the participating countries. He/she will contribute to the development of LADA methodologies and carry out technical evaluations. H/she will be responsible for maintaining and updating the LADA virtual centre and for reviewing and contributing to all technical reports produced by the project.

**Budget Clerk, based at FAO HQ, Rome, Italy (part-time paid by LADA project funds)**

7. The Budget clerk will assist the Project manager in carrying out the budget and funds monitoring, financial reporting and other responsibilities relating to the financial administration of the project funds for LADA at FAO. His /her duties will include the regular monitoring of the budget and the cash flow, preparation of contracts for project participants, monitoring the financial performance of the project. He/she will help liaise with Country LADA Coordinators on financial matters and will assist the Project Manager in the preparation of financial reports required by Donors.

8. The detailed terms of reference of the Budget Clerk for the LADA project will be defined in the course of the project implementation, in consultation with FAO Finance Division and UNEP.

**Chairperson of the Steering Committee (the Chair of the PAIA on Combating Desertification )**

9. Together with the LADA Project Manager and Technical Adviser, the Project Steering Committee provides guidance for the overall execution of LADA, as required. The Chairperson will keep in close and regular liaison with the LADA Project Manager and serve as focal point to provide advice, as required. He/she will provide scientific oversight bringing together the broad technical expertise and experience within FAO.

**Country Coordinators**

10. Under the Letters of Agreement (LoA) with FAO, the Country Coordinators will be appointed by the lead national institutions. The Country Coordinators will be responsible for the progress and conduct of project work in their areas and report work progress to the LADA Project Manager, who will ensure the maintenance of the partnership to undertake the contracted tasks, and to carry out the LADA country work programme according to the terms of reference of each contract. Based on conditions specified in the LoAs on project activities, the Country Coordinators will facilitate budget allocation and disbursement of funds within the terms of the contract. He/she will be responsible for timely reporting on project progress, and for ensuring that accurate financial records are maintained and regularly reported to the LADA Project Manager by the contracted institutions. Country Coordinators will be required to promptly advise the LADA Project Manager of difficulties that may arise at national level which might hamper the project progress.



## **Country Arrangement Proposals**

11. Country Coordinators are directly contracted by the lead institution in each country to manage work as described in Annex D and F. FAO will also maintain contracts with these institutions for the financial management of project work. Each cooperating institution within a country will have formalized contracts through letters of agreement, which will be cleared by FAO, between the lead institution and themselves. These letters confirm the institutional commitment to support the work of LADA and provide services as appropriate. The disbursement of funds is subject to the the terms and conditions specified in the contracts signed between FAO and the collaborating institutions.