



Part I:
**Generic Guidelines for Mainstreaming Drylands Issues
into National Development Frameworks**

First edition

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Acronyms

ABEK	: Alternative Basic Education for Karamoja
ADB	: Asian Development Bank
ACRMP	: African Charter of Human and Peoples Rights
ASALs	: arid and semi-arid lands
CBD	: Convention on Biological Diversity
CBO	: community-based organization
CCICCD	: Chinese National Committee for Implementation of the UNCCD
CEA	: Country Environmental Analysis
CEPAC	: Economic Commission for Latin America and the Caribbean
CFCs	: chlorofluorocarbons
CO ₂	: carbon dioxide
COP	: Conference of Parties
CPD	: centres of plant diversity
CSO	: civil society organization
DAC	: Development Assistance Committee
DANIDA	: Danish International Development Agency
DDC	: Drylands Development Centre
DEA	: Directorate of Environmental Affairs
DFID	: Department for International Development
DMC	: Drought Management Committee
DPP	: drought proofing planning
DPSIR	: driving-forces, pressure, state, impact, response
EC	: European Commission
ECOWAS	: Economic Community of West African States
EDPRS	: Economic Development and Poverty Reduction Strategy
EEG	: Energy and Environment Group
EIA	: environmental impact assessment
EMCA	: Environmental Management Coordination Unit
EMCBP	: Environment Capacity Building Project
EPA	: Environmental Protection Agency
ESI	: Environmental Sustainability Index
EU	: European Union
FAO	: Food and Agriculture Organization
FDRE	: Federal Democratic Republic of Ethiopia
FEMA	: Business Forum for Environment
FIRM	: Forum for Integrated Resource Management
GBS	: general budget support
GDP	: gross domestic product
GEF	: Global Environment Facility
GIS	: geographic information system
GM	: Global Mechanism (of the UNCCD)
GNP	: gross national product
GTZ	: German Technical Cooperation
HIV/AIDS	: human immunodeficiency virus/acquired immune deficiency syndrome
ICCD	: International Convention to Combat Desertification
IDDP	: Integrated Drylands Development Programme
IEM	: integrated ecosystem management
ILO	: International Labour Organization
IMF	: International Monetary Fund
ISLM	: integrated sustainable land management
ISO	: International Organization for Standardization

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IUCN	: International Union for the Conservation of Nature
JICA	: Japan International Cooperation Agency
LDCs	: least developed countries
LGAs	: local government authorities
LGCDG	: Local Government Capital Development Grant
LLMF	: local level monitoring framework
LLPPA	: local level participatory planning approach
M&E	: monitoring and evaluation
MAAIF	: Ministry of Agriculture, Animal Industry and Fisheries
MBIs	: market-based instruments
MCA	: multi-criteria analysis
MDGs	: Millennium Development Goals
MEA	: Multilateral Environmental Agreement
MET	: Ministry of Environment and Tourism
MINECOFIN	: Ministry for Finance and Economic Planning
MKUKUTA	: Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania
MLR	: Ministry of Lands and Resettlement
MoENR	: Ministry of Environment and Natural Resources
MoES	: Ministry of Education and Sports
MoF	: Ministry of Finance
MoU	: memorandum of understanding
MRLGHRD	: Ministry of Regional and Local Government and Housing and Rural Development
MTEF	: medium term expenditure framework
NAP	: National Action Programme
NBS	: National Bureau of Statistics
NCSD	: National Commission for Sustainable Development
NDP	: National Development Plan
NEAP	: National Environment Action Plan
NEMA	: National Environment Management Authority
NGO	: non-governmental organization
NPC	: National Planning Committee
NPRS	: National Poverty Reduction Strategy
NRA	: natural resource accounting
ODA	: Overseas Development Assistance
O&OD	: opportunities and obstacles to development
OECD	: Organisation for Economic Co-operation and Development
PASDEP	: Plan for Accelerated and Sustainable Development to End Poverty
PEAP	: Poverty Eradication Action Plan
PEI	: Poverty-Environment Initiative
PER	: public expenditure review
PETS	: public expenditure tracking survey
PPA	: participatory poverty assessment
PPP	: purchasing power parity
PRODOC	: programme/project document
PRC	: People's Republic of China
PRSS	: poverty reduction strategies
PRSPs	: poverty reduction strategy papers
RAF	: resource allocation framework
Rwf	: Rwanda franc
REMA	: Rwanda Environment Management Authority
SAF	: standard analytical framework
SAM	: social accounting matrix
SDLG	: Sembabule District Local Government
SDS	: sustainable development strategy
SEA	: strategic environmental assessment

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SEPA	: State Environment Protection Administration
SIDS	: small island development states
SLM	: sustainable land management
SMART	: specific, measurable, accurate, realistic and timely
SWAP	: sector-wide plans
SWOT	: strengths, weaknesses, opportunities, threats
T21	: Threshold 21
ToR	: terms of reference
Tsh	: Tanzania shilling
TPC	: technical planning committee
UNCCD	: United Nations Convention to Combat Desertification
UNCED	: United Nations Conference on Environment and Development
UNDCC	: United Nations Development Cooperation Cycle
UNDESA	: United Nations Department of Economics and Social Affairs
UNDP	: United Nations Development Programme
UNEP	: United Nations Environment Programme
UNESCAP	: United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	: United Nations Educational, Scientific and Cultural Organization
UNFCCC	: United Nations Framework Convention on Climate Change
UNICEF	: United Nations International Children's Emergency Fund
UNSO	: United Nations Sudano-Sahelian
US\$: United States dollar
VAM	: vulnerability analysis and mapping
VPO	: Vice-President's Office
WCED	: World Commission for Environment and Development
WDC	: Ward Development Committee
WFP	: World Food Programme
WRI	: World Resources Institute
WWF	: World Wildlife Fund

Glossary of terms

Biodiversity refers to the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes to which they belong; this includes diversity within species, between species and within ecosystems.

Climate change refers to deviations from natural climatic variability observed over time that are attributed directly or indirectly to human activity and that alter the composition of the global atmosphere.

Combating desertification includes activities which are part of the integrated development of land in arid, semi-arid and dry sub-humid areas for sustainable development and are aimed at: (i) prevention and/or reduction of land degradation, (ii) rehabilitation of partly degraded land and (iii) reclamation of desertified land.

Country Environmental Analysis (CEA) is a diagnostic analytical tool that helps to evaluate systematically the environmental priorities of client countries, the environmental implications of key government policies, and countries' capacity to address their environmental priorities. It has been developed by the World Bank as a flexible tool with three analytical building blocks: assessment of environmental trends and priorities, policy analysis, and assessment of institutional capacity for managing environmental resources and risks (www.worldbank.org).

Decentralization refers to political and administrative reforms that transfer varying amounts and combinations of function, responsibility, resources, and political and fiscal autonomy to lower tiers of the state (e.g. regional, district or municipal governments, or decentralized units of the central government).

Desertification is the process of land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities.

Drought is the naturally occurring phenomenon that exists when precipitation has been significantly below normal recorded levels, causing serious hydrological imbalances that adversely affect land resource production systems.

Drylands are areas with an aridity index value of less than 0.65; they comprise dry sub-humid, semi-arid, arid and hyper-arid areas.

Ecological footprint is a measure of the load or pressure imposed on the national environment by a given population; it represents the land area necessary to sustain current levels of resource consumption, waste discharge and infrastructure development by the population (World Wildlife Fund [WWF], 2002a).

Environment is the combination of external physical conditions that affect and influence the growth, development and survival of organisms. This includes all of the biotic and abiotic factors that act on an organism, population, or ecological community and influence its survival and development. *Biotic* factors include the organisms themselves, their food and their interactions. *Abiotic* factors include such items as sunlight, soil, air, water, climate and pollution. Organisms respond to changes in their environment by evolutionary adaptations in form and behaviour.

Environmental impact assessment (EIA) is a public process by which the likely effects of a project on the environment are identified, assessed and then taken into account by the consenting authority in the decision-making process.

Environmental sustainability index (ESI) is an index that measures countries' progress towards environmental sustainability using a set of 21 indicators in the following five core components: i) environmental systems, ii) reducing environmental stress, iii) reducing human vulnerability, iv) social and institutional capacity to respond to environmental challenges and, v) global stewardship.

Green accounting or natural resource accounting (NRA) refers to the modified system of national accounts (SNA) to incorporate the use or depletion of natural resources and the repercussions on the environment (e.g. pollution).

ISO 14000 is a series of international standards on environmental management.

Land degradation is the reduction or loss in arid, semi-arid and dry sub-humid areas of the biological or

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economic productivity and complexity of rain-fed cropland, irrigated cropland, or range, pasture, forest and woodlands. Land degradation results from a process or combination of processes, including those arising from human activities and habitation patterns that include: (i) soil erosion caused by wind and/or water, (ii) deterioration of the physical, chemical and biological or economic properties of soil and (iii) long-term loss of natural vegetation.

Livelihood is the means for securing the necessities of life so that individuals, households and communities can sustain a living over time, using a combination of social, economic, cultural and environmental resources.

Mitigating the effects of drought refers to activities related to the prediction of drought that are intended to reduce the vulnerability of society and natural systems to drought as it relates to combating desertification.

Natural resources include non-renewable resource such as minerals, fossil fuels and fossil water, and renewable resources such as non-fossil water supplies, biomass (forest, grazing resources) marine resources, wildlife and biodiversity.

A plan is a purposeful, forward-looking strategy or design, often with coordinated priorities, options and measures that elaborate and implement policy.

Policy is a general course of action or proposed overall direction that a government is or will be pursuing and that guides ongoing decision-making.

A programme is a coherent, organized agenda or schedule of commitments, proposals, instruments and/or activities that elaborate and implement policy.

Strategic environmental assessment (SEA) is an “analytical and participatory approach to strategic decision-making that aims to integrate environmental considerations into policies, plans and programmes and evaluate the interlinkages with economic and social considerations” (Development Assistance Committee [DAC] Network on Environment and Development Cooperation, 2005).

The sustainable livelihood approach (SLA) is a way to improve an understanding of the livelihoods of poor people by analyzing the following main factors that affect their livelihoods and the typical relationships among them: human capital, natural capital, financial capital, social capital and physical capital.

Sustainable human development not only generates economic growth but also distributes its benefits equitably; it regenerates the environment rather than destroying it and empowers people rather than marginalizing them. It gives priority to the poor, enlarging their choices and opportunities and providing for their participation in decisions affecting them. It is development that is pro-poor, pro-nature, pro-jobs and pro-women. Sustainable human development stresses growth with employment, environment, empowerment and equity.

Threshold 21 (T21) is a quantitative tool for integrated, comprehensive development analysis. Its purpose is to support the larger process of development planning by facilitating information collection, deepening the understanding of key structural relationships, and enhancing the analysis of development strategies. It can provide insight into the potential impact of development policies across a wide range of sectors and can show how well different strategic alternatives achieve desired goals and objectives.

Transect walk is a simple tool for describing and showing the location and distribution of resources, features, the landscape and main land uses along a given transect.

Executive summary

The Generic Drylands Mainstreaming Guidelines have been developed by the Drylands Development Centre (DDC) of the United Nations Development Programme (UNDP) in close collaboration with the United Nations Environment Programme (UNEP) and UNDP/Global Environment Facility (GEF) Global Support Unit. Support was also provided by the Global Mechanism (GM) of the United Nations Convention to Combat Desertification (UNCCD). The guidelines have been informed by lessons drawn from 21 countries on mainstreaming environment into development frameworks with a particular focus on drylands issues, and by a review made of other international organizations' guidelines on the same subject.

It is important for the implementation of poverty reduction strategies (PRSs) and the achievement of the Millennium Development Goals (MDGs) to take into account drylands issues and challenges, especially how they impact the poorest communities. These communities have the lowest per capita gross domestic product (GDP) and the highest infant mortality rates. The combination of high variability in environmental conditions and relatively high levels of poverty leads to situations where human populations can be extremely sensitive to changes in the ecosystem. If drylands are not mainstreamed, they will lose out in resource allocation.

Drylands have been described as the 'unappreciated gift' of nature, and unfortunately many people and institutions consider them as wastelands. However, the current socio-economic condition of people in drylands systems, of which about 90 percent are in developing countries, is worse than in other areas. Drylands have enormous environmental, economic and sociocultural values that need to be harnessed for their inhabitants. The drylands areas are inhabited by more than 2 billion people in the world (about one third of the total population). They experienced the highest population growth rates in the 1990s.

Croplands cover approximately 25 percent of drylands, and drylands rangelands support approximately 50 percent of the world's livestock. It is estimated that 29–45 percent of the world's currently cultivated plants originated from drylands (Food and Agriculture Organization, 1998). Drylands are sources of genetic plant material for developing drought-resistant crop varieties. As an ecosystem with extensive surface area across the globe, drylands can store large amounts of carbon—most of it in the soil rather than in vegetation. Hence they have been suggested as potential candidates for major carbon storage efforts.

Pastoralism contributes greatly to a number of countries' GDP. Mobile pastoralism provides a highly efficient way of managing the sparse vegetation and relatively low fertility of drylands soils. Drylands are also attractive for cultural tourism associated with historical and religious sites, for coastal tourism (such as Mediterranean beaches), and for health-related tourism (such as the Dead Sea). The drylands people have high cultural diversity and heritage value. Drylands ecosystems also contribute to human culture through both formal ('scientific') and indigenous knowledge systems.

The guidelines have demonstrated that by prioritizing MDG 7 (ensuring environmental sustainability), countries would also be able to deliver on other MDGs and vice versa. The reverse has also been observed. Failure to address drylands development challenges will hold back countries' progress on all MDGs. In particular, water deficit, droughts, land degradation and climate change are some of the challenges. Others are poor markets and infrastructure, nomadic lifestyles of pastoralists, conflict, negative attitudes and lack of political will. To address these challenges and in order to take advantage of the drylands' opportunities, countries must give drylands mainstreaming affirmative action.

According to UNDP Environmental Mainstreaming Strategy (2004), environmental mainstreaming refers to the integration of environmental policy considerations into core institutional thinking with other policies and related activities, as well as with coordination and harmonization to ensure policy coherence. To be successful therefore, environmental mainstreaming must be adopted as an institutional culture of doing business. These guidelines have defined drylands mainstreaming as "a systematic practice and culture to integrate drylands in all decision-making processes, policies and laws, institutions, technologies, standards, planning frameworks etc. and ensuring that they continue to be part of the agenda in subsequent decision-making processes, implementation and revision of all the above".

If mainstreaming is to feed into planning and decision-making, it should permeate all types of planning frameworks involved in the implementation of drylands issues (e.g. policies, laws, standards, institutions,

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technologies, curricula, funding mechanisms, programmes, projects, plans, etc.) and at the same time permeate the different stages of the formulation of these frameworks (conceptualization and identification, design, appraisal, budgeting, implementation and monitoring and evaluation [M&E]).

Many countries have made the error of integrating drylands issues into planning frameworks without a deliberate effort to follow up and ensure that all stakeholders actually allocate budgets to implement activities that will address the issues.

These guidelines have been developed with the aim of influencing action at several levels of planning and policy engagement, because it is necessary to make drylands visible at all levels. This concerted action will create the synergistic and critical pressure needed to put and keep drylands issues at a place of importance on the developmental agenda.

In regard to above issues, the guidelines describe the steps in mainstreaming processes. The steps for mainstreaming may be structured within five phases. The first is the assessment phase, in which the socio-political and economic situation on the ground vis-à-vis mainstreaming drylands is assessed. The next phase focuses on awareness raising, participation and partnership building. In this phase, communication strategies are developed, consultative processes are elaborated and partnerships identified and engaged. The planning phase—which must be participatory—follows, and these plans are linked with the government budgetary frameworks to ensure they are included. Once budgeted, the plans enter the implementation phase, in which national capacity enhancement is a key objective. Monitoring is an important element at this stage, and the monitoring mechanisms developed during the planning phase are used to track changes and assess achievements; the plans may be readjusted where possible. Finally, the evaluation phase examines the impacts of the plans and programmes and assesses the effectiveness of the mainstreaming process.

The steps may differ from country to country, but the main objective of the guidelines—to promote mainstreaming of drylands issues—remains. These guidelines therefore should not be viewed as prescriptive but as a reference point that countries can adjust accordingly to initiate the mainstreaming process.

The mainstreaming process requires skilful negotiation to ensure that the key stakeholders understand the reasons for mainstreaming drylands within their development frameworks and the benefits that a country stands to gain. In addition, mainstreaming drylands into national development frameworks requires the use of appropriate tools in each of the phases mentioned above. There are many factors that dictate the use of a tool, including the nature of the problem to be addressed, the capacity to use it, the resources available and the socio-political receptivity of the impact from its use.

1 Introduction

1. The Generic Drylands Mainstreaming Guidelines have been developed by the United Nations Development Programme Drylands Development Centre (UNDP-DDC) in close collaboration with the United Nations Environment Programme (UNEP) and UNDP Global Environment Facility (GEF) Global Support Unit. Support was also provided by the Global Mechanism (GM) of the United Nations Convention to Combat Desertification (UNCCD).
2. The guidelines outlined in Part I of this document have been informed by lessons and challenges from mainstreaming drylands issues into development frameworks in 21 selected countries from Africa, Asia and Latin America. Additional contributions were provided by an electronic forum organized and managed by UNDP-DDC. Part II illustrates the experiences of the individual countries in mainstreaming environmental issues. UNDP-DDC provides support to 19 countries for mainstreaming drylands issues into development frameworks through the Integrated Drylands Development Programme (IDDP). The GM of UNCCD supports countries in mainstreaming National Action Programmes (NAPs) into development frameworks and partnership building. The GEF has supported sustainable land management (SLM) in the least developed countries (LDCs) and small island development states (SIDS). Furthermore, UNEP has been working with UNDP in a global partnership called the UNDP-UNEP Poverty-Environment Initiative (PEI) to upscale investment and capacity development support for mainstreaming environment in country-led processes to achieve the Millennium Development Goals (MDG)-based PRSs.
3. It is equally emphasized under the UNEP-UNDP PEI partnership that there is a need for sustainable development frameworks to take into account not only economic development, but social and environmental issues as well. In the 21 countries from which evidence was collected, UNDP-DDC found that other development partners such as non-governmental organizations (NGOs) and private institutions had different experiences in mainstreaming; these lessons have also come to bear in the formulation of these guidelines. Finally, a review of other international organizations' guidelines and the lessons they learned has been incorporated. The participants to the international workshop on mainstreaming environment with a particular focus on drylands into National Development Frameworks held in Bamako, Mali, 18–20 July 2007 made invaluable contributions prior to the finalization of these guidelines.
4. In general, the interest in mainstreaming environment into development frameworks cuts across institutions and countries. For example, the International Stakeholders Panel on Mainstreaming Environment in Development stated: "The challenge to integrate environment into development has never been more urgent." The panel also asserted: "Change will be slow without adequate stakeholder pressure, and learning from experience of what works."¹ Equally, the tenth Poverty-Environment Partnership Meeting, held in March 2006 in Nairobi (Kenya), pointed out that the challenges of mainstreaming were still many, including limited capacity, lack of coordination and poor conceptualization of environment-poverty linkages.² Failure to ensure congruence in mainstreaming across different planning frameworks has also been documented.³
5. The World Bank's review of poverty reduction strategy papers (PRSPs) in Africa has also pointed out: "Well mainstreamed PRS does not guarantee a well mainstreamed follow-up."⁴ The publication of these guidelines is opportune and will contribute to addressing some of the above concerns.

¹ www.iied.org

² The theme of the meeting was *Country experiences in mainstreaming environment into development processes*.

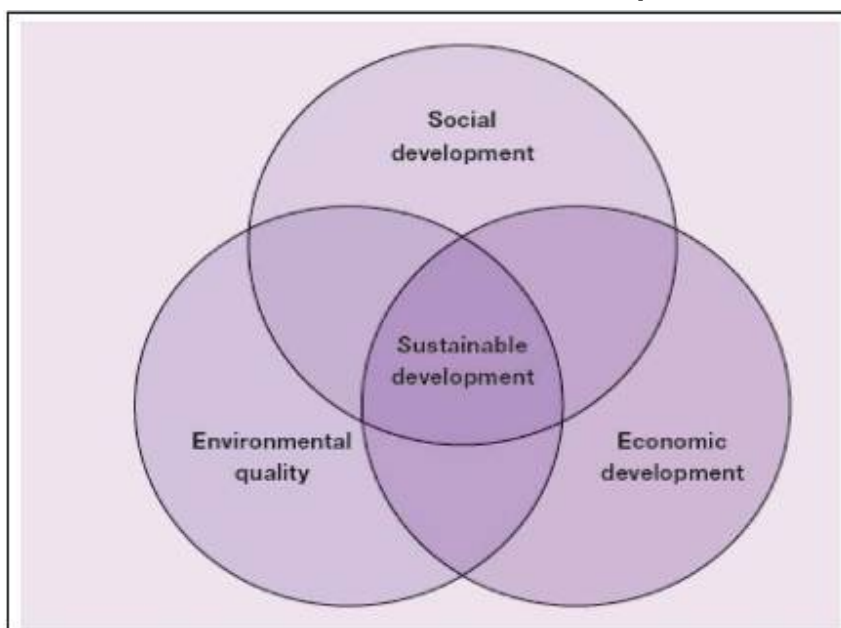
³ www.un.org/esa/sustev/natlinfo/nsds/accra report.pdf

⁴ Sunanda Kishore, World Bank [2007]: *Mainstreaming Environment: Implementation of PRSSs in Sub-Saharan Africa*, a presentation made at the Poverty Environment Partnership Meeting, Copenhagen, 18–20 June 2007. (<http://povertyenvironment.net>)

2 Purpose of the mainstreaming guidelines

6. The growing desire to reconcile the economic, social and environmental objectives of sustainable development is the cornerstone for mainstreaming (Figure 2.1). There is history to this approach; in the late 1980s, and early 1990s, it became accepted that past development strategies—which were mainly concerned with production and economic growth—failed to take heed of the environmental damage, resulting in some of the poorest countries being worst affected. It is now in each country's own interest to make economic, social and environmental decisions in mutually reinforcing ways to achieve 'win-win' solutions. Genuine mainstreaming has to consider the three pillars of sustainable development in tandem; this is termed substantive or holistic mainstreaming.

Figure 2.1 The three dimensions of sustainable development



7. Like other ecosystems, drylands have enormous environmental, economic and sociocultural value. They can thus greatly contribute to the improvement of livelihoods and human well-being—including the attainment of MDGs, provided their carrying capacity for the present generation does not hinder future generations' well-being.
8. It is important to take into account drylands issues for the implementation of PRSs and the achievement of the MDGs, because the poorest people live in drylands. In these regions, per capita gross domestic product (GDP) is the lowest and infant mortality rate is the highest. From the human rights angle, drylands communities also have a right to development and well-being. If drylands are not mainstreamed, they will lose out in resource allocation. Drylands mainstreaming is expected to lead to more investment and to promote sustainable development in these regions.
9. Many countries have expressed the need for these guidelines because they have experienced challenges while trying to mainstream drylands issues into their national development and poverty strategies. The guidelines are meant to help countries develop strategies that can effectively support drylands areas and to tap into sources of national funding as well as international development assistance. Provision of international development assistance is changing to more effectively support progress towards the MDGs and to meet the needs of the poor, especially in fragile states. There has been a fundamental shift towards more strategic-level activities, as opposed to projects involving new instruments such as direct budgetary support, policy reform, and sector-wide support programmes. In countries facing the risk of conflict or that are recovering from political instability,

other strategic planning frameworks are likely to be employed. For these to be effective, they need to be formulated and led by the developing partner country and be implemented through national and local systems and institutions.

2.1 Users of the guidelines

10. The Guidelines are intended for the following target groups:
 - i. Policy makers at local, national, regional and global levels. This includes key sectors actively involved in national development planning, such as environment, finance, planning and elected members who make the decisions.
 - ii. Programme managers and land management experts working on drylands issues at local, national and international institutions, including non-state actors such as NGOs and academia.
 - iii. State and non-state actors directly involved in policy and planning formulation for national development frameworks, including their approval and allocation of financial resources.
 - iv. Practitioners from government, private sector, development agencies and civil society organizations (CSOs) involved in capacity building, advocacy and awareness creation on SLM.
 - v. Development partners that support national governments, districts, NGOs, etc. to plan and implement development activities likely to generate positive impacts in drylands areas or activities likely to broaden livelihood opportunities from agro-based/agrarian economies in the LDCs.
 - vi. Private sector entrepreneurs and enterprises whose businesses depend on drylands products.

2.2 Limitations of the guidelines

11. These guidelines are not about drylands management. For example, they do not address technical issues such as rehabilitation of degraded areas and irrigation in drylands. They are a point of reference to use when broadly addressing drylands issues in other frameworks whose planned activities may have a bearing on their sustainable use. Governments and institutions are encouraged to adapt them to their specific contexts. It is for this reason that they are generic. In this context, the following should be borne in mind regarding the guidelines:
 - i. They are not action plans.
 - ii. They can be revised at any time based on experience from their use and adaptation.
 - iii. They are not legally binding.

3 Understanding the concept of mainstreaming

This chapter provides the operational definition, three broad approaches and the necessary ingredients for mainstreaming drylands issues.

12. Successful mainstreaming requires that countries or institutions adopt a practical operational definition of the concept and market it widely. The *Longman Dictionary of Contemporary English*⁵ uses two words, namely 'include' and 'absorb', to define mainstream; as a noun, mainstream is 'the principal course of activity'. The first part of the word, 'main', connotes dominance, and the second, 'stream', connotes to 'go with the flow'. According to the 2004 UNDP Environmental Mainstreaming Strategy, 'environmental mainstreaming' refers to the integration of environmental policy considerations into core institutional thinking, along with other policies and related activities in a coordinated and harmonized manner to ensure policy coherence.
13. According to the World Commission of the Environment and Development Report *Our Common Future*, mainstreaming environment into strategic decision-making is an essential prerequisite for moving towards sustainable development. Furthermore, it moves beyond the traditional idea of environmental policy being separate and discrete from other policy. Thus, the Commission states:

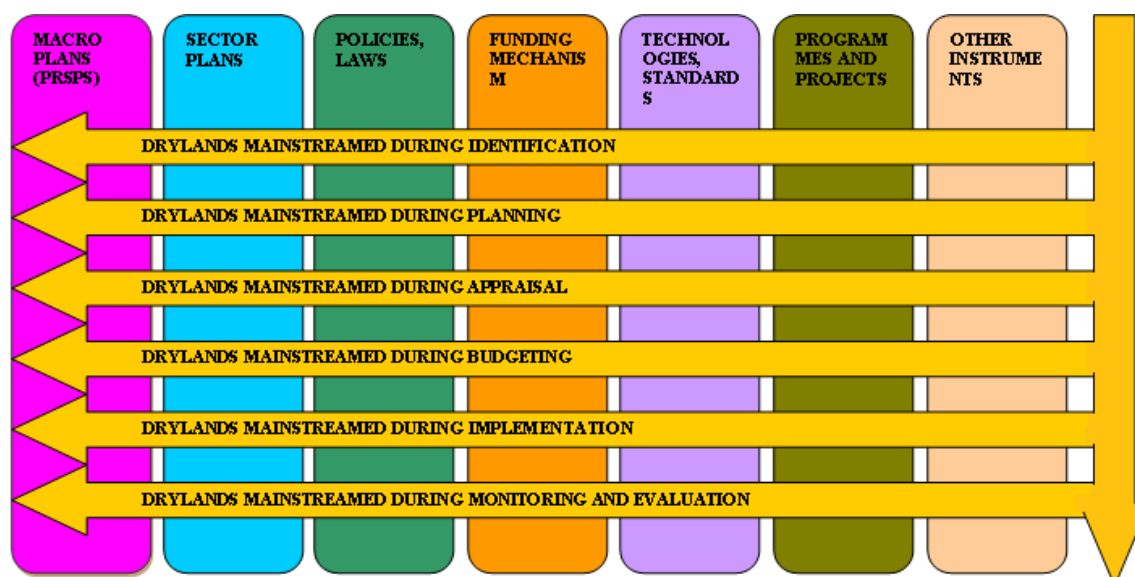
"The ability to choose policy paths that are sustainable requires that the ecological dimensions of policy be considered at the same time as the economic, trade, energy, agricultural, industrial and other dimensions on the same agendas and in the same national and international institutions." (World Commission on Environment and Development (WCED), 1987, p. 313)
14. To be successful, therefore, drylands mainstreaming must be adopted as an institutional culture of doing business in drylands countries. Environmental issues need to be reflected in all decision-making processes where decisions can best benefit from environmental opportunities and avoid negative impacts in the early stages.
15. If mainstreaming is to feed into planning and decision-making, it should be seen to permeate all types of planning frameworks that give effect to the implementation of environment in general and of drylands issues in particular (e.g. policies, laws, standards, institutions, technologies, curricula, funding mechanisms, programmes, projects, plans, etc.). At the same time, mainstreaming should permeate all stages, from beginning to end (i.e. conceptualization and identification, design, appraisal, budgeting, implementation, monitoring and evaluation [M&E]).
16. There are three broad angles of mainstreaming:
 - i. **Procedural mainstreaming:** The integration of environmental issues into planning and decision-making processes by asking questions such as: When? How? By whom?
 - ii. **Methodological mainstreaming:** The integration of different approaches and concepts, as well as the involvement and participation of key actors at different intensities and points in time. In this case, mainstreaming inevitably calls for a critical assessment of the institutions' mandates, on one hand, and on their relationship with other institutions and structures (e.g. line ministries, local government structures, communities, private sector, CSOs etc.) on the other.
 - iii. **Substantive mainstreaming:** The integration of environment (biophysical) with social, economic and other issues at different scales (local to global) and time perspectives. This is the holistic approach.
17. One can appreciate the different approaches to mainstreaming drylands, not only during planning but also through to funding and implementation stages of development frameworks, as illustrated

⁵ <http://www.ldoceonline.com>

by Figure 3.1. Many countries make the error of stopping at the stage where issues have been integrated into planning frameworks. Post-evaluations of these frameworks have often pointed to a number of issues, namely that: (i) drylands issues were an ‘add-on’, (ii) funding was not provided and (iii) the mainstreamed activities were lost during implementation. This narrow approach does not allow drylands issues to appear and remain high on the development agenda. The key ingredients for full mainstreaming are given in Box 3.1. The tools for mainstreaming described in chapter 6 and Annex 1 encompass all types of frameworks and their phases. In light of these issues, the definition of drylands mainstreaming is as follows:

Drylands mainstreaming is a systematic practice to integrate drylands issues in all decision-making processes, policies and laws, institutions, technologies, standards, planning frameworks, etc. and to ensure that they continue to be part of the agenda in subsequent decision-making processes, implementation and revision.

Figure 3.1 Illustration of drylands mainstreaming



Source: Adapted from Sustainable Development Centre, 2004

18. It should be noted that mainstreaming is an art as well as a process, requiring both communication and analytical skills. On the one hand, personal engagement and clear communication are very important at all levels of the decision-making hierarchy; on the other hand, the technical and analytical work informs the mainstreaming process.

Box 3.1 Key requirements for full mainstreaming of drylands

- Cause-and-effect relationships of drylands issues must first be identified as a basis for inclusion in the planning frameworks.
- The proposed activities that address the drylands issues are carried out in tandem with social, economic and environmental activities.
- Mainstreaming permeates all planning frameworks that are used to marshal human effort in combination with other resources to address the drylands issues. This means going beyond plans to

include policies, laws, information, technology, curriculum, standards, etc.

- Mainstreaming permeates all planning and decision-making centres pertaining to the above frameworks. That is, conceptualization of the problem, design and planning, appraisal, budgeting, implementation, and M&E.
- Commitment must be gained by all stakeholders to translate planned activities into action and to implement mainstreamed drylands activities.
- The impact of implemented activities on the well-being of the people, and the effectiveness of mainstreaming processes must undergo periodic monitoring and evaluating with a view to (i) identifying barriers to addressing drylands issues and (ii) building on good practices in order to upscale and replicate.
- Governance and institutional systems should be reformed and the attitudes, knowledge and skills of the human capital re-oriented to accept mainstreaming as a culture of doing business as opposed to an additional responsibility.

4 Principles of mainstreaming

This chapter describes the key principles underlying the mainstreaming processes. Adherence to these principles is essential to maintaining drylands mainstreaming. They are currently being followed by many countries, albeit at different scales, and they are consistent with principles put forth by Agenda 21, Convention on Biological Diversity (CBD), UNCCD, United Nations Framework Convention on Climate Change (UNFCCC) and other MEAs.

19. There are some key principles that should be followed to ensure quality in the process of mainstreaming drylands into development frameworks.
20. **Country ownership:** The entire mainstreaming process should be under the full responsibility of the country and led by the relevant government agencies, for example the ministries of development planning, finance, agriculture, lands and environment.
21. **Sustainability:** The demands placed upon natural resources available in the drylands by people for their various needs (social, economic, cultural, etc.) should be met without reducing their capacity to provide for future generations. For renewable resources, harvest rates should be within regenerative capacity of the natural system. For non-renewable resources, the depletion rates should be equal to the rate at which sustained income or renewable substitutes are developed by human invention and investment. Further, waste emission should be within the assimilative capacity of the environment to absorb. Equally, damaging and irreversible processes to critical natural capital (e.g. biodiversity) should be avoided as much as possible. The principle of sustainability extends also to institutions and organizations to maintain implementation of programme activities beyond donor funding.
22. **Good governance:** Good governance is the process by which decisions are made and are (or are not) implemented. Good governance has eight major characteristics: it is 1) participatory, 2) consensus-oriented, 3) accountable, 4) transparent, 5) responsive, 6) effective and efficient, 7) equitable and inclusive, and 8) follows the rule of law. It assures that corruption is minimized, the views of minorities are taken into account and that the voices of the most vulnerable in society are heard in decision-making. It is also responsive to the present and future needs of the society.
23. The characteristics of good governance as illustrated in Figure 4.1 are:
 - a) **Participation:** Environmental issues are best handled with the participation of all concerned citizens at the relevant levels.⁶ Providing access to information and creating awareness promotes participation. A transparent system is needed to enable people to open up during participation. Particular effort must be made to identify the people likely to be affected by a proposed intervention. While countries have depended on NGOs as proxy for the wider public, it should not be assumed that they could act as such in all cases. Some countries have passed access-to-information legislation in order to improve the climate for participation (Petkova et al., 2002). Effective access to judicial and administrative proceedings, including redress and remedy, should also be provided.
 - b) **Empowerment:** Development must be implemented by the people, not only for them. Thus empowerment refers to the transfer of decision-making and implementation responsibilities for the management of local resources—both institutional and fiscal—to sub-national institutions. True empowerment must be accompanied by transfer of resources to enable the local institutions to deliver on the powers delegated to them; capacity building (civic education, management skills) must also be encouraged to allow local institutions and communities to perform their assigned responsibilities effectively.

⁶ Principle 10 of Agenda 21

- c) **Equity and justice:** People must have access to equal opportunities, including access, use and control of resources. The aim is to ensure that there is equity and justice in the sharing of both the responsibilities and benefits from the decentralized governance of natural resources. More importantly, equity and justice require that all stakeholders' rights (including intergenerational and offsite stakeholders' rights) to national resources are legally recognized and legitimized; they also require an effective and quick recourse against defaulting on the responsibilities and, particularly, infringement or abuse of rights. Respecting the principle of equity and justice is expected to minimize the potential risks associated with decentralization, i.e. the marginalization of some groups (e.g. pastoralists), or the elite in the society taking advantage of the less fortunate members. Having representative local decision makers and institutions that are accountable to the people (and not to the government) is key to equity and justice.
- d) **Transparency:** It can be understood as the appropriate, reliable and timely flow of environmental, economic, social and political information made available to all stakeholders. This is the hallmark of democratic decentralization, which can be achieved through sharing of information vertically and horizontally along the hierarchy chain, among various local institutions and individuals. Countries that have passed legislation on access to information need to operationalize it in order to promote transparency.
- e) **Accountability:** First, accountability requires that local decision makers be accountable to the people in order to secure greater equity and justice. If this is the case, it is expected that the elected officials will be more sensitive to the rights and needs of the local communities. Elected officials can lose their constituents' confidence due to poor performance and hence are vulnerable to loss of power in subsequent elections. Second, accountability requires that local decision makers be relatively independent of their central authority. Local decision makers are more likely to concern themselves with the sustainable management of local resources than remote central authorities because they are likely to suffer the consequences of negative environmental impacts. When local representatives are accountable to the central government their powers can be usurped or overridden by the central officials' priorities. This domain of secure rights and accountability must be established in law and protected through representation and recourse to ensure sustainability. Accountability in decentralization can be facilitated through adequate information flow, participatory decision-making, clear policies and rules, and procedures for decision-making and management of financial resources. The means of verification include transparency in reporting and independent audit and evaluation processes.

Figure 4.1 Characteristics of good governance



Source: UNESCAP, 2005

24. **Subsidiarity:** Environmental decisions concerning setting standards and interpreting risks should be taken at the lowest possible level of public authority closest to the population concerned. In that regard, high levels of government should have a subsidiary function, performing only those tasks that cannot be performed effectively at a more immediate or local level. In the decentralized governance of natural resources, it is expected that decision-making at a given governance level will be limited to issues that cannot be managed at the next lower level without compromising the interests of other off-site stakeholders (as might occur, for example, in the decentralization of river basin management to sub-basin level). The subsidiarity principle requires the development and adaptation of rules to guide the division of decision-making, implementation and enforcement of regulations, and dispute resolution among levels of government and among institutions at each level. These rules are necessary safeguards to the security of power transfer and to facilitate accountability.

4.1 Levels of drylands mainstreaming

25. Drylands mainstreaming is legitimized by the UNCCD. In accordance with the Convention and country practices, mainstreaming drylands should occur at the local (community), sub-national, national, regional and global levels. Mainstreaming at only one level or one planning framework does not create the minimum scale required to significantly impact the livelihoods of many people. However, many factors dictate at which level the impact of mainstreaming can best be realized. For example, issues of trans-boundary nature—i.e. regional conflict over natural resources and use of shared resources such as river basins and lakes—can best be handled by regional institutions using appropriate protocols. Nation-specific problems such as regulating irrigation practices in drylands or defining access to land can be handled at national level. Strengthening the implementation of the UNCCD can be greatly enhanced at the global level by advocating for increased financial assistance from developed countries to address drylands issues in developing countries. Table 4.1 provides examples of different levels of interventions and the strategies used at each level. It is imperative that there is information flow among all the levels to ensure congruence and consistency.

Table 4.1 Levels of drylands mainstreaming

Example of planning framework Level of application	Convention	Policies	Plans and programmes	Institutions
Global	<ul style="list-style-type: none"> • UNCCD • United Nations Framework Convention on Climate Change (UNFCCC) • Convention on Biological Diversity (CBD) 	MDGs	<ul style="list-style-type: none"> • 10-year strategic plan for the Implementation of UNCCD 	<ul style="list-style-type: none"> • UNCCD Secretariat • CBD Secretariat • UNFCCC Secretariat • UNDP • World Bank • UNEP • IFAD etc.
Regional	<ul style="list-style-type: none"> • African Convention on Conservation of Nature and Natural Resources (Algiers Convention) 		<ul style="list-style-type: none"> • Regional action plans • Sub-regional action plans • South Pacific Regional Environment Programme (SPREP) • Comprehensive Africa Agriculture Development 	<ul style="list-style-type: none"> • Nile Basin Secretariat • IGAD • Economic Community of West African States (ECOWAS) • CILSS • South African Development Cooperation

National	<ul style="list-style-type: none"> • Land Act • Desertification control Act 	<ul style="list-style-type: none"> • Land use policy • Rangelands policy • Tax policy 	<p>Programme (CAADP)</p> <ul style="list-style-type: none"> • PRSs • National action plans • National Strategy for Sustainable Development 	<ul style="list-style-type: none"> • African Union • East African Community • Ministries and commissions responsible for planning. • Ministries and agencies responsible for environmental management • Private sector • CSOs
Local	<ul style="list-style-type: none"> • By-law against grass burning 		<ul style="list-style-type: none"> • Provincial or district plan • Provincial or district environment action plans • Parish development plan • Parish environment action plan • Community conservation project 	<ul style="list-style-type: none"> • Provincial administration or district • Community-based organizations (CBO) • Communities • Local governments • Private sector

5 The mainstreaming process

This chapter describes the key steps in mainstreaming, first providing the conditions necessary for the process, then the generic steps that can be followed to ensure drylands issues are mainstreamed into national development frameworks.

5.1 Preconditions for mainstreaming processes

26. The following preconditions have been found to create an enabling environment for drylands mainstreaming in countries. As a first step, it would be advisable to critically assess the country-specific climate for mainstreaming, with a view of planning strategically to create impact. The preconditions for mainstreaming are:
- i. Understanding the rationale for mainstreaming;
 - ii. Government and institutional commitment to and ownership of mainstreaming;
 - iii. Commitment to good governance to promote accountability and transparency;
 - iv. Provision of human resources and allocation of sufficient time;
 - v. Allocation of financial resources in support of mainstreaming processes;
 - vi. National sustainable development framework that provides a conceptual understanding of linkages between environment and socio-economic development.

5.2 Understanding key decision-making models

27. Countries use many pathways or models in planning and decision-making. Countries have used both linear and non-linear models. The linear planning model is more common, and many examples of planning framework can be found, including policies, laws, country visions, PRSs, strategic plans, sector-wide plans, corporate plans, provincial and district plans, MDG plans and donors' cooperation frameworks, to mention but a few.
28. The above plans will perhaps continue to be the key entry points for drylands mainstreaming, for several reasons: they follow a linear and therefore predictable model of decision-making, with known starting and completion dates, lead agencies in planning, other strategic stakeholders and clearance decision centres; as well, they are used as instruments for resource mobilization, allocation, implementation, and M&E. Therefore, it is easy to plan in advance how to engage institutions for mainstreaming purposes.
29. This linear model typically consists of six steps, namely:
- i. Determining the problem;
 - ii. Establishing preferences;
 - iii. Listing all options or alternatives and evaluating them to make a choice that maximizes or optimizes the likelihood or efficiency of achieving goals;
 - iv. Implementation and enforcement;
 - v. Monitoring;
 - vi. Evaluation.
30. Sometimes, decision-making follows a non-linear path, in which a wide range of issues,

solutions and stakeholders are involved and this presents particular 'choice opportunities'. A choice opportunity occurs whenever people have a chance to connect different issues. This approach is called the 'garbage can model' (Cohen et al., 1972; March and Olsen, 1976).

31. There are several reasons why decision-making is not always linear. First, policy-making entities or decision makers are not unitary actors with preferences that are clear, consistent and stable, but rather multiple actors with several, often conflicting, goals. Second, decision makers sometimes find themselves with limited information regarding the subject being debated, and finally, it is difficult or sometimes impossible to get a consensus on definitions of particular concepts (World Bank, 2005b).
32. The implication is that mainstreaming drylands can only be possible during certain windows of opportunity. Institutions that are taking the lead on mainstreaming processes need to adopt inclusive management, whereby (i) there are continuous, iterative processes, and (ii) an inclusive participatory process is involved, representing a wide range of perspectives. This will legitimize the mainstreaming process. In fact, it should be noted that inclusive management is not about increasing the number of people who are involved in mainstreaming but about increasing and incorporating the diversity of otherwise neglected views into planning frameworks.

5.3 Generic drylands mainstreaming steps

33. The generic steps in Box 5.1 are proposed for drylands mainstreaming, and each step is discussed in some level of detail below. It must be noted that there is no hard rule as to the number of steps to follow or to the sequencing. Some steps can be done simultaneously. Collectively, they help those planning and implementing the mainstreaming process to meet the basic standards of mainstreaming. The steps are organized in five phases; Strategic Assessment, Awareness, Participation and Partnership-building; Planning; Implementation; Learning, and M&E. It is important to reiterate that before starting the mainstreaming process an assessment of the preconditions as mentioned under section 5.1 is undertaken. In addition, a good understanding of the decision-making process is a prerequisite.

Box 5.1 Generic steps for drylands mainstreaming

Strategic assessment phase

- Step 1: Identifying and analysing the status of land issues and their environmental, economic and social impacts, taking into account the various direct and indirect drivers of change affecting land issues;
- Step 2: Identifying and filling information needs/analysis;
- Step 3: Assessing legal, political and institutional environment for mainstreaming;
- Step 4: Conducting stakeholders analysis and defining roles, responsibilities and obligations;
- Step 5: Carrying out capacity assessment.

Awareness, participation and partnership-building phase

- Step 1: Drawing up a communication and awareness creation strategy;
- Step 2: Building partnerships for mainstreaming;

Step 3: Planning for participation and consultation processes.

Planning phase

Step 1: Undertaking iterative and integrated planning;

Step 2: Linking the plans to budgets and funding mechanisms.

Implementation phase

Step 1: Building capacity

Step 2: Implementing the plans

Learning, monitoring and evaluation phase

Step 1: M&E of planning frameworks for impacts;

Step 2: Evaluation of the effectiveness of mainstreaming processes;

Step 3: Revision of the planning frameworks.

5.3.1 Identification of the environmental, economic and social impacts

34. Any efforts toward mainstreaming start with the broad identification of the potential positive and negative impacts likely to emerge due to a proposed intervention. This sets in motion other processes such as identifying the institutions or people that can provide information about the potential causes of the problem. In some instances, organizations use checklists to capture the broad issues before determining the level of detail that should be given to the assessment of the likely impacts. The following questions can be used to start up broad planning for mainstreaming:
 - i. What is the planning framework or activity in which drylands should be mainstreamed?
 - ii. What are the processes involved in formulating the planning framework or activity?
 - iii. What is the timing of those processes?
 - iv. What are the strategic institutions and individuals that will participate in the processes, including those who must approve the framework or activity?

35. The answers to the above questions will guide the right choice of questions and raise the right issues for debate. Table 5.1 illustrates this point. Countries differ in their prioritization of PRSPs. Following are a few examples of countries' stated priorities and specific questions used to test mainstreaming in the context of drylands. Similar questions should inform other planning frameworks used by ministries and decentralized structures to ensure congruence and consistency.

Table 5.1 Selected countries' PRSP priorities and questions for drylands mainstreaming assessment

Country	Selected program or domain	Key questions used to test drylands
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Lessons from Mainstreaming Environment with a particular focus on Drylands issues into National Development Frameworks

		mainstreaming
Bolivia	Program for risk prevention and mitigation, emergency management and extreme poverty reduction	<ul style="list-style-type: none"> a. Are some of the risk prevention, mitigation and emergency measures oriented to drylands populations? b. Have early warning signals been included? c. What local structures will be involved in the management of early support?
Burkina Faso	Promoting access for the poor to basic social services and social production	<ul style="list-style-type: none"> d. How will social services be provided to drylands populations? e. Will the services be sedentary or mobile? f. Is there proposed support for marketing and promotion of drylands-based products?
Ethiopia	Justice system and civil service reform	<ul style="list-style-type: none"> g. Are there measures to give resource tenure to drylands populations? h. How have the interests of women and other marginalized people been accommodated? i. Have mechanisms for resolving drylands resource-use conflicts been included?
Mali	Improve public expenditure management	<ul style="list-style-type: none"> j. Are drylands issues budgeted for and reflected in the medium term expenditure framework (MTEF)? k. Has the drylands budget actually been released? l. Are public expenditure reviews (PERs) / public expenditure tracking surveys (PETS) included in government plans?
Rwanda	Establishment of principles, indicators and institutional mechanisms for development	<ul style="list-style-type: none"> m. What drylands-related indicators are included? n. Are there proposed activities to strengthen institutions for drylands management? o. What principles are relevant for drylands populations?
Uganda	Human capital development	<ul style="list-style-type: none"> p. Are there planned interventions to build capacities for ENR/drylands management? q. What tools are likely to be used for capacity

		assessment and building? r. Is there a programme to build capacities of drylands-based local institutions?
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One may observe from Table 5.1 that these priorities dictate the choice of tools used for drylands mainstreaming. For example, PER/PETS would be an ideal tool for Mali to test for improvement in public expenditure management. For Uganda, capacity assessment tools would be relevant to help guide human capital development.

5.3.2 Identifying and filling information gaps

36. One of the constraints to mainstreaming is a lack of information about drylands. Practically speaking, the above questions identify the nature of problem and the specific information required. Broadly speaking, information is needed regarding the environmental, economic and social aspects of the problem, as well as on relevant policy, legal and institutional factors. Without proper information, planning is impeded. Nonetheless, countries have relied on many sources of relevant information, including national statistical offices, academic and research institutions, and international networks. As well, it has been typical to commission studies (e.g. on the environment-poverty linkage) during the mainstreaming process.
37. Information on drylands issues can be gathered in several ways. The following approaches are proposed (Table 5.2). The information gathered complements information obtained using other methods, such as censuses and household surveys. As a principle, the proper method is dictated by several factors, including the level of mainstreaming, the nature of the problem and the available capacity.

Table 5.2 Some approaches to information gathering methods/tools

Method/tool	Brief description of procedure
Group interviews	These interviews could be conducted with naturally formed groups—e.g. pastoralists in rangelands, mothers at a well or patients at a local clinic—or with focus groups. Using open-ended interviewing methods, one can capture issues that affect groups of people or the community as a whole.
Semi-structured interviews with key informants	Information is gathered by addressing semi-structured questions to knowledgeable individuals in a relaxed and informal manner. Semi-structured interviews can be used to obtain qualitative information on specific issues of interest, such as decision-making processes and hierarchy, gender-related issues, use of drylands resources, household economics and local institutions and traditions.
Transect situational analysis	Through walks in a local setting, one can gather information on important aspects of the environment (biological, physical and social) and then discuss related issues on the spot. This method can also serve to verify information gathered using other methods.

Method/tool	Brief description of procedure
Trend analysis	Used during interviews, trend analysis consists of an in-depth inquiry on specific problems, how they have evolved, how they are likely to evolve in the future and what action needs to be taken to address them. In short, the purpose of trend analysis is to assess changes over time.
Seasonal calendar	Seasonal calendars are drawings or series of symbols illustrating the seasonal changes in various phenomena of environmental nature (such as rainfall) or social nature (such as labour demand). The calendars generate information on the seasonal variations seen in local problems, resources, constraints and opportunities
Gender analysis	In many communities, women do not have the same access, use, and control over resources as men. They also have different roles, responsibilities, opportunities and constraints. An analysis of gender is therefore important to understand how resource users and managers relate to various resources and to each other.
Land use mapping	This is an exercise consisting of representing the geographical distribution of specific features (environmental, demographic, infrastructure) in a particular area as perceived by community members. It is especially useful for providing a snapshot of the local situation, including property boundaries, the location of key resources and features of importance to the community

Source: Borrini-Feyerabend and Buchan, 1997.

5.3.3 Assessing the legal, political and institutional environment for mainstreaming

38. Countries must consider two types of institutions in mainstreaming. The first are those institutions that are mandated to address certain problems in drylands (or other areas that are likely to have short- or long-term impacts on drylands, e.g. forestry, agriculture, or environmental agencies). Addressing the environment is internal to their operations. The second category consists of those institutions that have no mandate for drylands, but that carry out social and economic activities in the drylands (e.g. government ministries responsible for education, health, transport, private investors, etc.). Addressing environmental issues is considered external to their operations.
39. The cardinal principle of mainstreaming is that institutions with mandates for environment and natural resources management must carry out their operations while keeping in mind the social and economic pillars of sustainable development. Likewise, those in the social and economic sphere must equally take into account the environment.
40. A unifying factor for both categories of institutions is that they are obligated to sustainably use the environment on the basis of recent national legal frameworks and their government's commitments under multilateral environmental agreements (MEAs). They may only differ in their comparative advantage. Owing to varying comparative advantage, it is a good principle to adopt a multi-disciplinary and multi-institutional approach.

41. Therefore, the institutions that should initiate mainstreaming are those whose activities may directly or indirectly affect drylands, either negatively or positively in both the short and long term.
42. The key message is that for mainstreaming to be sustainable, very detailed mapping is required of government macro and sectoral policy, planning and decision-making processes, institutions, and individuals relevant to the national development process. It is through such mapping that one can locate key entry points for drylands mainstreaming.
43. Furthermore, the ministry responsible for planning and finance must be involved from the beginning as a prime focal ministry in the processes, because it can assist by availing substantive amounts of resources for a sustained programme and by rallying donor support for drylands mainstreaming.

5.3.4 Stakeholder analysis, roles, responsibilities and obligations

44. It is imperative to undertake stakeholder analysis before embarking on the identification of roles and responsibilities. A stakeholder analysis will identify and assess the importance of key people, groups of people or institutions that may significantly influence the mainstreaming process, as well as those who would coordinate the process most effectively. The results of the stakeholder analysis are recorded in a stakeholder matrix, which plots the results against two variables; for instance, the stake in the outcome of the process/programme against the resources of the stakeholder, or the importance of the stakeholder against the influence of the stakeholders, or a combination of all the variables. The following table provides an example of a stakeholders matrix.

Table 5.3 Sample stakeholders analysis matrix

Stakeholder categories	Relevant stakeholders (primary and secondary)	Characteristics (social implications, power relations with others, political, technical, financial assets, etc.)	Interests in relation to drylands development and to the mainstreaming process (effects on, effects of)	Level of influence (high, medium or low)	Effect of mainstreaming initiative on players (beneficial, neutral or harmful)
Government agencies 1..... 2..... 3....., etc.					
Implementing agencies 1.....					

2.....					
3....., etc.					
Intended beneficiaries/co mmunities					
Development partners					
NGOs, CBOs, religious organizations					
Other stakeholders (specify)					

45. It is not advisable to think of the government as a single stakeholder. There are also a number of other institutions with interests in planning and policy frameworks:

- The **auditor general** ensures that funds are properly used;
- The **national statistical office** provides data for national plans;
- The **commissions, authorities or agencies** oversee particular cross-cutting issues (e.g. human rights);
- The **parent line ministries** initiate policies and sectoral plans.

There are also **local governments** (in decentralized countries).

46. Outside of government, some of the stakeholders should consider include the following:

- The **beneficiaries** or intended beneficiaries of a policy or plan;
- The **CSOs** that are usually involved in planning, monitoring and advocacy;
- The **media** who disseminate information on policies and plans to generate public interest;
- The **private sector**;
- The **traditional** and **religious** institutions;
- The **donors**.

47. The key message, therefore, is that sustainable mainstreaming requires very detailed mapping of government macro and sectoral policy, planning and decision-making processes, institutions and individuals relevant to the national development process. A stakeholder’s analysis will be useful to acquire the understanding of the power relationships, influence and interests of stakeholders involved in the development process. Its findings can provide early and essential information on who will be affected—both positively and negatively—by the mainstreaming process, the individuals, groups, agencies who need to be involved and how, and whose capacity needs to be built to enable them to participate.

48. Only one or a few institutions should serve as the coordinating task forces or working groups so as to maintain communication, particularly during the formulation of national frameworks

such as PRSs and sectoral plans. Other members then work as representatives of their ministries and are joined by those from CSOs, academia or the private sector. As they work, they report to the coordinating institution. The key message here is that all tasks should be properly defined in the terms of reference (ToR) that outline the work of the various committees. At times, agencies may move from an informal to a formal method of work through a memorandum of understanding (MoU) or other partnership framework.

5.3.5 Carrying out capacity assessment and building

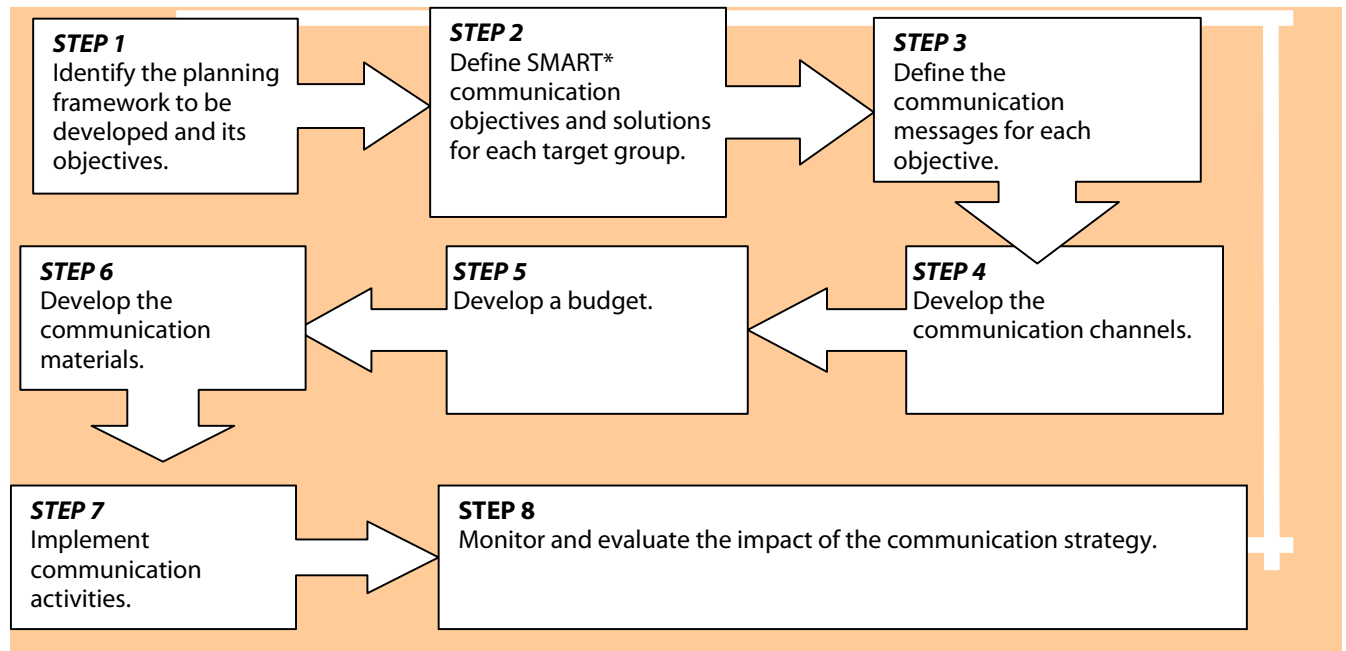
49. Countries reported an 'implementation gap', meaning they do not accomplish actual implementation of the interventions mainstreamed in the planning frameworks, for two reasons: first, they do not critically assess the capacities for implementation during the mainstreaming processes, and second, they do not earmark budgets to address issues that they categorize as cross-cutting (including environmental issues). These must be addressed during mainstreaming. Countries will find it very beneficial if, in preparation for mainstreaming, they orient the teams on (i) understanding the concept of mainstreaming, (ii) the problems of drylands management, (iii) mainstreaming guidelines and (iv) the tools for use in mainstreaming and the budgeting processes.
50. Several approaches have been used in capacity building, some of which result in short-term impacts while others are aimed at long-term human capital development impacts. Overall, training has generated significant results when it is linked to drylands mainstreaming processes. However, countries have difficulty sustaining their capacities on a structural level: there is high turnover of trained personnel because of low remuneration and at times tools and logistical elements are not available. HIV/AIDS has also taken its toll on the labour force. Out of the recently concluded self-capacity assessments for the implementation of the three MEAs (CBD, UNFCCC and UNCCD), countries have prioritized capacity building in policy analysis, evaluation, advocacy and environmental mainstreaming. This will be a critical area for support because of countries' shift from a project to a policy framework for development; hence the urgent need to track the impacts of policy implementation. From a long-term perspective, countries have introduced relevant curricula and established specialized institutions to deliver them.

5.3.6 Drawing up a communication and awareness creation strategy

51. Successful mainstreaming includes citizen participation by ensuring that they (i) have sufficient knowledge about drylands issues and (ii) they are informed about the policy or plan being developed. Unfortunately, many factors act as barriers to communication, including the diversity of languages and dialects, the liberalization of the media and poor infrastructure.
52. For these reasons, a well-planned communication strategy is crucial. The strategy should pervade all processes in an iterative manner and may be designed using the steps in Figure 5.1. Most importantly, it should target the stakeholders that were prioritized during stakeholder analysis. A key element of a successful communication strategy is advocacy.
53. Advocacy aims to bring to the forefront country-specific evidence needed to convince sceptical policy makers, economists and planners of the need for drylands mainstreaming. Several countries have invested in country-specific evidence, with support of donors. The required data could focus on the following:
 - i. Links between environment (drylands), poverty reduction, pro-poor growth and attainment of MDGs;
 - ii. Costs of environmental (drylands) degradation;
 - iii. Costs of inaction in addressing drylands issues;
 - iv. Benefits of investing in environmental sustainability, including analysis of successful local

- level interventions with potential for replication and upscaling;
- v. The contribution of indigenous knowledge to sustainable drylands management;
- vi. Effects of policy and institutional failures in drylands management.

Figure 5.1 Steps for a mainstreaming communications strategy



*Specific, measurable, accurate, realistic and timely.

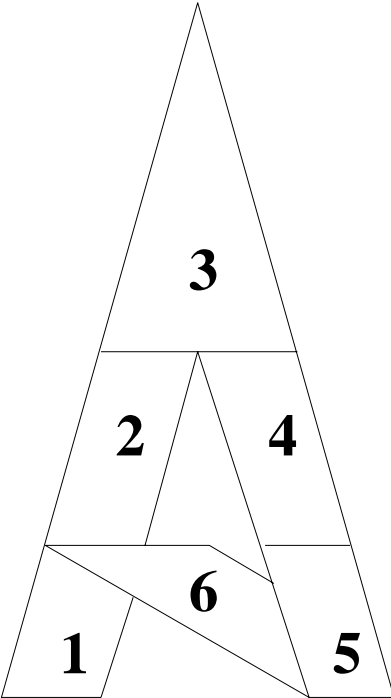
54. Just as with strategic communications, advocacy follows a systematic process that involves:
- i. Analysis to identify stakeholders and other key groups for outreach;
 - ii. Networking and coalition building to develop a sustainable approach and create alliances that will help carry the message further and in a more credible fashion;
 - iii. Developing arguments and formulating these into messages that can be used to convince audiences to support a particular project or issue;
 - iv. Monitoring the results of advocacy.

This is explained further by the following framework for advocacy used by John Hopkins University Centre for Communications Programmes:

Figure 5.2A framework for advocacy

5.3.7 Building partnerships for mainstreaming

Johns Hopkins University's Center for Communication Programs
"A Frame for Advocacy"



1. Analysis - The first step in effective advocacy, starting with accurate information and in-depth understanding of the problem, the people involved, the policies, the implementation or non-implementation of those policies, the organisations, and the channels of access to influential people and decision-makers.

2. Strategy - The strategy phase builds on the analysis phase to direct, plan, and focus on specific goals and to position the advocacy effort with clear paths to achieve those goals and objectives.

3. Mobilization - Events, activities, messages, and materials must be designed with your objectives, audiences, partnerships and resources clearly in mind.

4. Action - Keeping all partners together and persisting in making the case are both essential to carrying out advocacy

5. Evaluation - a team needs to measure regularly and objectively what has been accomplished and what remains to be done.

6. Continuity - Articulate long-term goals, keep functional coalitions together and keep data and arguments in tune with changing situations.

Source Pamphlet: "A" Frame for Advocacy

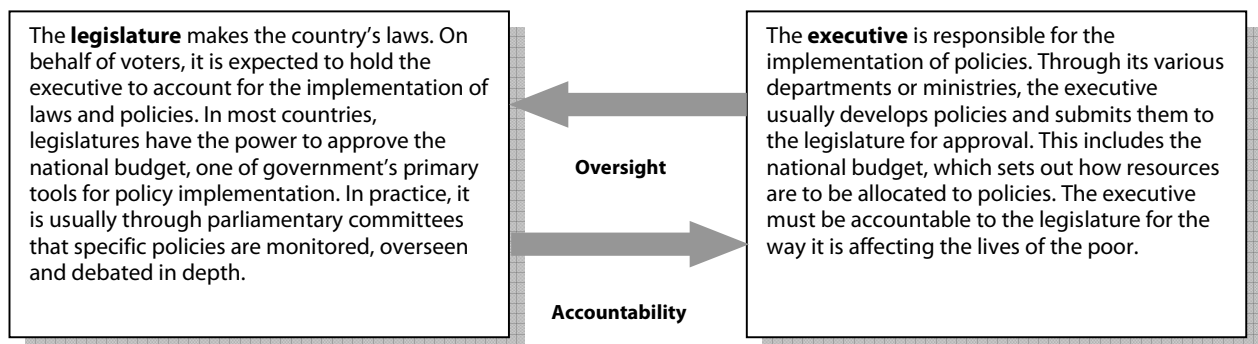
55. Countries have benefited greatly from partnership networks, alliances and working groups in mainstreaming processes, in both informal and formalized relationships. Increasingly, countries are encouraged to enter into formal partnerships because it improves coordination, working for a common purpose, joint planning and decision-making, trust and leveraging of resources. In short, partnerships can add value to the drylands mainstreaming processes if (i) they are framed around common problems, (ii) formalized and (iii) include drylands-based institutions and farmer groups.

5.3.8 Planning for participation and consultation processes

56. Participation is a process through which stakeholders influence and share control over development initiatives and the decisions and resources that affect them (World Bank 1999) The practice of participatory and consultative processes is growing and is increasingly being

captured in national legislation. The processes have been carried out using different approaches, but mainly through working groups, steering committees, conferences and workshops. Consultations have also been required, either through environmental and social impact assessments, where public consultation is mandatory, or through countries' legislation requiring the use of environmental impact assessments (EIAs). Participation empowers people, builds their trust and sense of ownership and increases their understanding of the planned activities, as well as generating information for decision-making. In short, consultation is essential for sustainability. As a principle, participation should be initiated as soon as possible. Different categories of stakeholders from inside and outside government are usually involved.

57. It is not advisable to view the government as a single stakeholder, because several government aims are often considered in planning and decision-making in different ways and at different levels. At times interests can conflict and policies may be interpreted differently. An example of government institutions and their mandates are highlighted below:



58. There are also a number of other institutions which have interest in planning and policy frameworks:
- i. Auditor general ensures that funds are properly used;
 - ii. National statistical officer provides data for national plans;
 - iii. Commissions authorities or agencies oversee particular cross-cutting issues (e.g. human rights);
 - iv. Parent line ministries that initiate policies;
 - v. Local governments where decentralization has taken place.
59. Outside government, some of the stakeholders to consider include the following:
- i. Beneficiaries or intended beneficiaries of a policy or plan;
 - ii. CSOs, that are usually involved in planning, monitoring and advocacy;
 - iii. Media who disseminate information on policies and plans to general public;
 - iv. Private sector;
 - v. Traditional and religious institutions;
 - vi. Donors.
60. The choice of stakeholders for participation must be made in a fair and equitable manner. Meaningful participation requires people who represent a range of legitimate interests. The following questions help to identify potential stakeholders (Box 5.2):

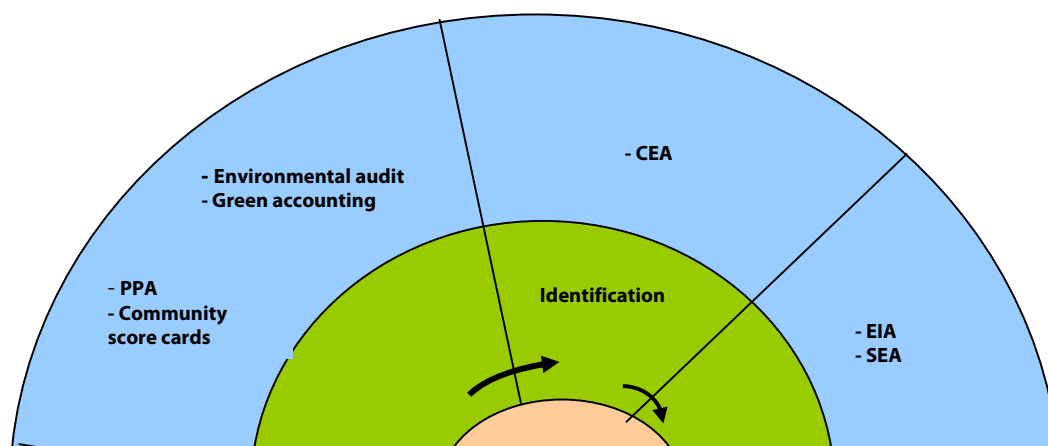
Box 5.2 Guiding questions to identify stakeholders for participation in mainstreaming

- Who might be affected (positively or negatively) by the development concern to be addressed?
- Who are the representatives of those likely to be affected?
- Who are the 'voiceless' for whom special efforts may have to be made?
- Who is responsible for what is intended?
- Who is likely to mobilize for or against what is intended?
- Who can make what is intended more effective through their participation or less effective by their non-participation or outright opposition?
- Who can contribute financial and technical resources?
- Whose behaviour has to change for the effort to succeed?

5.3.9 Undertaking iterative planning

61. Three examples of linear planning models are common in many countries. The first model is continuous, well structured and follows a calendar or financial year. It is fully linked and aligned to the budgeting cycle.
62. The second model follows a project approach with roughly six phases. It is shown in Figure 5.2. The tools that can be used in each phase are also reflected. Usually, the project is assessed at the formulation stage to determine the gravity of likely environmental impacts. The rigour and detail of the model will depend on that initial screening process.
63. The third model also follows certain steps, which will vary according to the available resources, the relative importance of the plans, etc. This model has typically been used in the formulation of PRSs, visions, and sector plans.
64. Therefore it is imperative that those involved in mainstreaming processes are familiar with the planning and budgeting cycles of the country with a view to locating important decision-making centres. Equally, capacity building for environmental mainstreaming must target all of those centres.
65. Importantly, those leading the mainstreaming processes must ensure that consistency and congruence is maintained among the frameworks and at all levels. The following questions should be used to test whether congruence is achieved:
 - i. Is there a national policy framework to guide drylands mainstreaming?
 - ii. Is PRS guided by the above framework?
 - iii. Are the provincial, district and parish level plans also congruent with PRS and sector-wide plans?
 - iv. Are revisions or updates made in the plans based on the review of PRS?

Figure 5.2. Linking mainstreaming tools to the phases of the project cycle



5.3.10 Linking the development frameworks with budget and other funding mechanisms

66. Governments prepare budgets outlining both the sources and planned uses of revenue. Allocations are made according to priorities, including those concerning the environment or drylands. The budgets must be defended by those ministries or agencies that submit them to the finance ministry. Negotiations and lobbying skills become important in this process, in which ministries and agencies compete for a portion of the national budget.
67. Many governments have recently adopted a more dynamic way of budgeting, known as the medium-term expenditure framework (MTEF). With this approach, government budgets are drawn up based on policy decisions and with a longer view for the future. In countries using an MTEF, government budgets are usually prepared not only for the forthcoming year but also for the subsequent two to five years.
68. UNDP and UNEP have developed an MDG costing tool for environmental considerations in MTEFs.⁷ It is on the basis of the ceilings set in the MTEF that ministries make their budgets. It is therefore very important that the champions of drylands mainstreaming know the budget cycle in their country and the instruments used. They must engage in these processes.
69. The following framework can help to establish the government's level of interest and spending on the environment in, for example, a PRS (Table 5.4). Furthermore, one can compare the allocations to the environment over time.

⁷ The tool can be requested from UNDP-DDC.

Table 5.4 Guiding questions to test the soundness of PRSs in mainstreaming drylands

Topic	Questions
The priority given to drylands-related programmes mentioned in the PRS	<ul style="list-style-type: none"> • Is the government’s commitment to implementing drylands mainstreaming activities within the PRS reflected in the budget? • In real terms, what share of the budget is allocated to and spent on areas related to drylands? • What share of sectoral and departmental budgets are being dedicated to drylands-related policies or programmes at national, sub-national and local levels?
The adequacy of spending on drylands-related programmes	<ul style="list-style-type: none"> • What is the total amount budgeted for drylands mainstreaming programmes? • How has the amount budgeted for drylands programmes changed in real terms compared to previous years? • Is the amount budgeted for drylands appropriate?
Equity in allocating funds for drylands-related programmes	<ul style="list-style-type: none"> • How much is budgeted per capita for all sectors in the PRS? • How much is actually spent per capita on drylands policies and programmes?
The efficiency of spending on drylands-related programmes	<ul style="list-style-type: none"> • Are resources allocated to the drylands programmes being spent as planned? • Is growth in allocations to the drylands programmes translating into growth in actual spending?

70. It is important to monitor government budgets because PETS in most countries have established four likely leakages in government expenditure. They are:

- i. The government may spend on inappropriate goods or services;
- ii. The resources may fail to reach the institution implementing the activities;
- iii. The incentives to provide the service may be weak;
- iv. Households may not take advantage of the services even if they are effectively provided.

71. Beyond traditional budgets, governments are using other mechanisms to fund drylands programmes. They include desertification funds and economic instruments (i.e. incentives and disincentives). The emerging carbon markets are an opportunity to reshape the view of drylands from a development sink to a potential carbon sink, given a convergence between carbon emitters keen to buy carbon credits.

5.3.11 Implementing the plans

72. The ‘implementation gap’ is a big concern among countries. It can be caused by several

factors, including poor conceptualization, design, insufficient appraisal and lack of funding. Management capacity may also be lacking. To avoid this problem, a capacity assessment for implementation should be made as an integral part of mainstreaming and adequate support should be provided accordingly.

73. Experience to date in Africa and in the public sector has shown that even with increased investment (this being one of the key motivations for mainstreaming), many countries do not have the absorptive capacity to deliver on the resources due to the underlying capacity constraints. Lack of capacity explains why the seemingly good practices of planning for drylands do not yield the benefits as planned. In this regard, there is the need to develop and strengthen the national capacities of countries to effectively absorb the anticipated increase in financial resources.
74. In some cases, projects are well implemented. They have the power to inspire others and should be used as platforms for awareness creation. Such projects, including those building on indigenous knowledge, need to be upscaled and replicated.

5.3.12 Learning, monitoring and evaluation of planning frameworks

75. M&E is an important phase in mainstreaming. It is essential to develop an M&E plan at the outset, following the steps below (adapted from the UNDP-DDC M&E plan):

Steps in developing an M&E plan

- a. Identify the monitoring objectives. It is important to be clear about the overall purpose and scope of the monitoring plan, and especially to identify who needs what kind of information and for what reasons, how extensive or minimal the monitoring needs are, and what resources area available.
- b. Establish the monitoring budget. Decide how much monitoring will cost and how it will be paid for. The monitoring costs should have already been included in the Programme/Project document (PRODOC).
- c. Revise the intervention logic. Use logic models for programme planning and monitoring to clearly work out and demonstrate the cause-and-effect relationship on which the programme logic is based. Given that there is usually a time lag between project/programme design and implementation and given that some outputs are included when new partners come on board, it is important to revisit the planning model, as well as the risks and assumptions on which the monitoring indicators are based.
- d. Establish the baseline data, which should have already been collected during the project/programme formulation.
- e. Identify or establish performance indicators based on the work plan/PRODOC as shown in the table below. Where necessary, the indicators should take into account gender categories to enable collection and analysis of gender-disaggregated data.

Project outcome	Outputs	Indicators	Timelines

- f. Set up systems for data collection, e.g. monitoring templates, reporting templates, frequency timelines and those responsible for data/information collection. Identify the data sources and the means of verifying them. This should have already been indicated in the log frame.

Expected results	Indicators ⁸	Means of verification	Data source

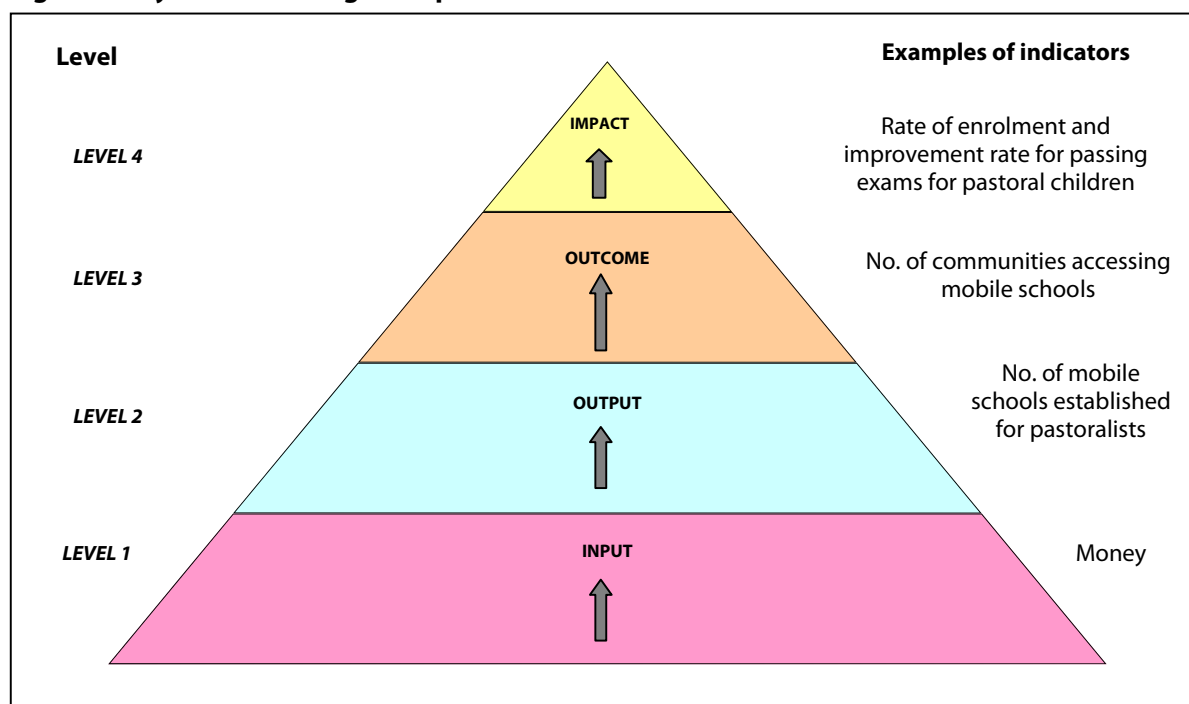
- g. Collect and record the data and schedules and determine how these should include lessons learnt and best practices (e.g. through quarterly monitoring templates, annual reports, etc).
- h. Determine who is responsible for data collection.
- i. Analyze the data/information and present it in a report that provides recommendations and follow-ups with decisions of actions.
- j. Determine how monitoring results will be disseminated, lessons shared and feedback mechanisms put in place for adaptation.

76. Monitoring should be guided by a set of indicators.⁹ Indicators are usually classified according to their level: input indicators (which measure the resources provided), output indicators (direct results), outcome indicators (benefits for the target group) and impact indicators (long-term consequences). Figure 5.3 illustrates an example of indicators for a project to establish mobile schools for pastoralists in the drylands. They are presented very broadly in a pyramid form to show that as one moves up in the vertical logic, the ability to track indicators becomes more difficult. Regarding environment indicators, the contribution to long-term or overall consequences does not always pass through benefits for a target group and the definition of 'outcome' indicators should thus be revised in order to include expected short-term environmental effects (impacts). Indicators should wherever possible be SMART (specific, measurable, accurate, realistic and timely).

⁸ Indicators are qualitative and quantitative variables that provide a simple and reliable means to measure achievement towards outcomes. Indicators provide evidence of change, or signs that the conditions the programme/project interventions are trying to improve are changing or have changed.

⁹ Annexes 4 and 5 provide examples of developing environmental indicators.

Figure 6.3 Pyramid showing examples of indicators at each level



77. Environmental indicators can also be classified according to another system: the DPSIR¹⁰ (driving forces, pressure, state, impact, response):

- Driving forces – drivers, such as markets and education;
- Pressure – the human activities generating impacts, e.g. fishing, logging, emission of pollutants;
- State – the situation and trends of environmental resources or parameters, e.g. forest cover or deforestation rate, water quality;
- Impacts – the consequences for human interventions on ecosystems and livelihoods;
- Response – the measures taken to address environmental issues, e.g. establishing protected areas, preparing new laws.

5.3.13 Evaluating mainstreaming processes

78. It is a good practice to carry out evaluations at the end of a framework's cycle. Evaluation is a selective (time-bound) exercise that attempts to systematically and objectively assess progress towards the achievement of an outcome. An evaluation addresses the following issues:

- Relevance: Was the project well conceived given the situation? Does it remain relevant to the problem it was intended to address? To what extent does it contribute to the overall programme?
- Efficiency: Was the project delivered in a timely and cost-effective manner?

¹⁰ DPSIR is the causal framework for describing the interactions between society and the environment adopted by the European Environment Agency: driving forces, pressures, states, impacts, responses (extension of the PSR model developed by the OECD). See: <http://themes.eea.europa.eu/indicators>

- Effectiveness: To what extent have the planned results been achieved? What has affected achievement of the results?
- Impact: To what extent has the project contributed to longer term outcomes of the programme? Are there unanticipated positive or negative consequences?
- Sustainability: Is there an enabling environment that supports ongoing positive impacts? Can the outcomes be sustained beyond project funding?
- External utility: To what extent is the project replicable in another situation?

Evaluations generate lessons that can inform future similar processes. In the recent past, several frameworks have been designed for many cross-cutting issues, including gender, HIV/AIDS, environment, human rights and population growth. Many evaluations have established that cross-cutting issues tend to get lost during implementation, even when they are mentioned in planning frameworks.

79. Many factors account for this. First, they may have been reflected to satisfy a position or condition. Second, the key issues may not have been analyzed during the planning stage. Third, those implementing the frameworks may have lacked the capacity to address them. Also, importantly, there may have been no approved budgets allocated or used for implementation.
80. Evaluation of the mainstreaming process can be carried out concomitantly with evaluation of the national development programmes. However, evaluation should focus not only on the process but also on the impacts of implementing the mainstreamed programmes. It is crucial then to develop an evaluation framework at the time the programmes are being formulated.
81. Learning: M&E provide unique opportunities to learn from the mainstreaming process and the analysis of the results chain (inputs-activities-outputs-outcomes-impacts). Necessary adjustments should then be made to improve performance in implementation and increase the level of influence in the decision-making process for sustainable development.

6 Mainstreaming tools

This chapter describes the categories of tools that countries can use to mainstream environment generally and drylands specifically. It concludes with a list of factors that determine their selection and applicability among countries.

6.1 Unpacking the concept of a 'tool'

82. Countries have used various tools to mainstream drylands (see Annex 1). The term tool here is used broadly to cover a wide range of instruments, techniques, mechanisms and approaches used to achieve mainstreaming. The essential feature of a tool is that it is transferable (able to be taken from one context and used elsewhere). This does not mean that every tool is an ideal blueprint that is appropriate to every challenge. The various tools are described in subsequent categories.

6.2 Policy, legal and institutional tools

83. Tools used for mainstreaming help to create an enabling environment to start, sustain and institutionalize mainstreaming culture. For example, countries have introduced policies, laws and institutions to ensure safeguards for the environment and human well-being as a result of using tools such as SEAs, EIAs, etc. In particular, legislation creates safeguards in several ways, as follows:
- i. Prescribes **standards** e.g. air quality, waste discharge;
 - ii. Prescribes **sanctions** for illegal activities, and can therefore be enforced through the judicial system;
 - iii. Defines **citizen rights**, which include a right to a clean and healthy environment;
 - iv. Provides **procedures and tools** to be followed, e.g. carrying out an SEA or EIA before new projects are approved;
 - v. **Mandates** some institutions to carry out certain activities on behalf of government (e.g. coordination, supervision and monitoring of environment are placed in the hands of many countries' apex environmental agencies).
84. In addition, the obligations are imposed by regional and international legal protocols, e.g. MEAs. With respect to the latter, the UNCCD, among others, imposes an obligation on developing countries to:
- "Provide an enabling environment by strengthening, as appropriate, relevant existing legislation and, where they do not exist, enacting new laws and establishing long-term policies and action programmes".¹¹
85. Equally, UNCCD imposed an obligation to the developed countries to undertake the following:
- "Provide substantial financial resources and other forms of support to assist affected developing country parties, particularly those in Africa, effectively to develop and implement their own long-term plans and strategies to combat desertification and mitigate the effects of drought".¹²

¹¹ Article 5(e) of the UNCCD

¹² Article 6(f) of the UNCCD

86. Those who have the immediate responsibility to ensure that national legislation provides an enabling environment for drylands management and mainstreaming are the legislatures, parliaments and those drafting the laws, usually in ministries responsible for justice and constitutional affairs. It also includes members of lower levels of government who formulate area-based ordinances and by-laws. Those who negotiate the conventions at a global level have the same obligations. Civil society groups can play a role in challenging all of the above actors to give due recognition to drylands issues.
87. There are also tools that form the basis for cooperation among countries and institutions. They include (i) cooperation frameworks between developed and developing countries, (ii) agreements between donors and NGOs and (iii) agreements among donors. These differ in that some exist over longer periods of time than others. These cooperation tools are important because they assist in resource mobilization and harmonization, technical assistance, support for technology transfer, research and capacity building. Advocates of mainstreaming must ensure that they contribute to the processes leading to the finalization of these cooperation frameworks.
88. Institutions differ in their legal mandates, technical expertise and resources. These variations create justification for building partnerships for mainstreaming. A starting point in this regard is the identification of stakeholders. Annex 6 provides a stakeholder analysis and mapping tool. After mapping out stakeholders, the following guidelines can be used for partnership building (Box 6.1):

Box 6.1 Sample guidelines for partnership-building

Aim: To create a clear and detailed agreement/MoU for drylands mainstreaming

Context: These guidelines are for use when entering into a written or formal agreement. They should be used to develop an agreement or partnership framework collaboratively with other partners, and the resulting agreement should be signed all partners as an indication of their commitment. The following key points should be clarified in the agreement:

- i. **Partnership objectives:** the concrete objectives the parties want to work towards achieving;
- ii. **Guiding principles:** the basic principles all parties agree to uphold and advance;
- iii. **Decision-making:** how decisions will be made at different levels and methods of reaching consensus;
- iv. **Roles:** specific roles for each partner;
- v. **Obligation:** precise inputs and contribution by partners;
- vi. **Coordination:** who will lead in the coordination of mainstreaming activities;
- vii. **Authority:** who has the power to do what;
- viii. **Accountability:** who is accountable to whom;
- ix. **Reporting:** what reports are required, the reporting hierarchy and procedures to ensure reporting happens as planned;

- x. **Conflict:** how to deal with disagreements among the parties;
- xi. **Conduct:** a code of conduct for partners and forms of behaviour between members;
- xii. **Recourse:** what actions will be taken if the agreement is breached;
- xiii. **Review:** how and when you will review your partnership framework and adjust the agreement, if necessary;
- xiv. **Termination:** the circumstances under which the agreement may be terminated;
- xv. **Entry into force:** the date that the agreement comes into effect.

89. Institutionally there are also tools for participation, which serve three purposes: (i) soliciting input, (ii) getting consensus and (iii) disseminating information. Such tools are provided in Table 6.1. Participation and consultation should follow basic principles to ensure that the cultural values of those being consulted are respected. Stating the purpose of participation up front is necessary to avoid creating expectations, as broken promises or mismanagement can create mistrust. A choice has to be made early on as to what type of information can best be captured by consultation to ensure that audiences are not engaged in aspects beyond their capabilities. Stakeholders appreciate seeing their views reflected in the final documents, so it is important to solicit their input in data collection.

90. Gaining government support for participation may be necessary and can be strategic, as well as building alliances with legitimate, respected, and knowledgeable people or institutions. Regular interaction with stakeholders is encouraged. Intermediaries (e.g. NGOs) can be used to prevent mistrust.

Table 6.1 Tools for use during participation processes

Soliciting input	Gaining consensus	Disseminating information
<ul style="list-style-type: none"> • Contacting community leaders • Surveys • Questionnaires • Interviews • Public meetings • Assessment of beneficiaries 	<ul style="list-style-type: none"> • Advisory panels • Problem-solving techniques • Consensus-building techniques 	<ul style="list-style-type: none"> • Printed materials • Displays • Exhibits • Open meetings

91. Mainstreaming will be sustained if countries build their capacities. Capacity is “the ability of people, organizations and society as a whole to manage successfully their own affairs”.¹³ Capacity exists on several different levels—systematic, institutional and individual—and it must be addressed across all levels for mainstreaming processes to be sustained. ‘Systematic capacity’ is also known as the enabling environment or the societal level; it is not necessarily

¹³ This is an OECD/DAC [2006] definition. UN Capacity Development Group [2006] defines capacity as: “the ability of individuals, institutions and societies to perform functions, solve problems and set and achieve objectives in a sustainable manner”.

synonymous with the national level.

92. Capacity development at all three levels should be designed in a manner to help the implementers perform effectively, efficiently and sustainably. It must be taken as a continuous function. The way in which people are organized and facilitated will bear on the delivery of the programme/project objectives. The organizations in which they work must develop policies, systems and a culture to support capacity development.
93. Another institution that can be used to mainstream drylands is the market. For example, if a drylands-based product is accepted by consumers and integrated in the local or global market, its producers will have the incentive to continue producing, as long as it remains profitable to do so. Accordingly, removing barriers to trade (e.g. poor infrastructure, lack of information and lack of agro-processing technologies) can go a long way to improve the functioning of the market system.
94. At times governments may take affirmative action to encourage good drylands management practices, particularly where the cost to individuals may be high and the benefits to the wider society are large. Under these circumstances, governments can offer incentive packages and disincentives to discourage environmentally degrading practices. Incentives and disincentives, which are also called market-based instruments (MBIs), have the power to influence the general public through market prices, which reflect production costs. MBIs may also be called economic instruments. In the context of drylands, they build on UNCCD's recommendation in Article 18.1(e) that countries should do the following:

"Take appropriate measures to create domestic market conditions and incentives, fiscal or otherwise, conducive to the development, transfer, acquisition and adaptation of suitable technology, knowledge, know-how and practices, incentives for mobilizing and channelling resources and incentives for productive investment".
95. Many countries have expressed an interest to complement the command and control tools with MBIs. The MBIs remain relevant if they do not become pervasive, and for this reason, they have to be monitored regularly. The following considerations should be borne in mind (Box 6.2):

Box 6.2 Considerations for implementing incentives and disincentives for drylands management

- i. **Acceptance:** Be realistic. Introduce only those incentives and disincentives that can be understood by the public and industry and that are likely to be accepted by political leaders.
- ii. **Gradualism:** Not all problems can be managed by incentives and disincentives from the outset, and so they should be adopted gradually.
- iii. **Reality:** Implement only those incentives and disincentives that can be effective considering existing institutions and staff.
- iv. **Legal backing:** Legislation to back the implementation of incentives and disincentives should be in place and should allow for further low-cost revisions.
- v. **Market reliance:** To the extent possible, the growing reliance on the market must be

incorporated into the design of incentives or disincentives to reduce high transaction and collection costs.

- vi. **Monitoring:** Incentives and disincentives should be monitored to assess the extent to which they influence behaviour with respect to sustainable production and consumption and the achievement of the sought environmental outcome.
- vii. **Revenue generation:** A clear understanding on how to use revenue from incentives and disincentives should be articulated. For instance, the revenue could be used to reduce other distortional taxes or re-invested to improve the conditions of people living in drylands.

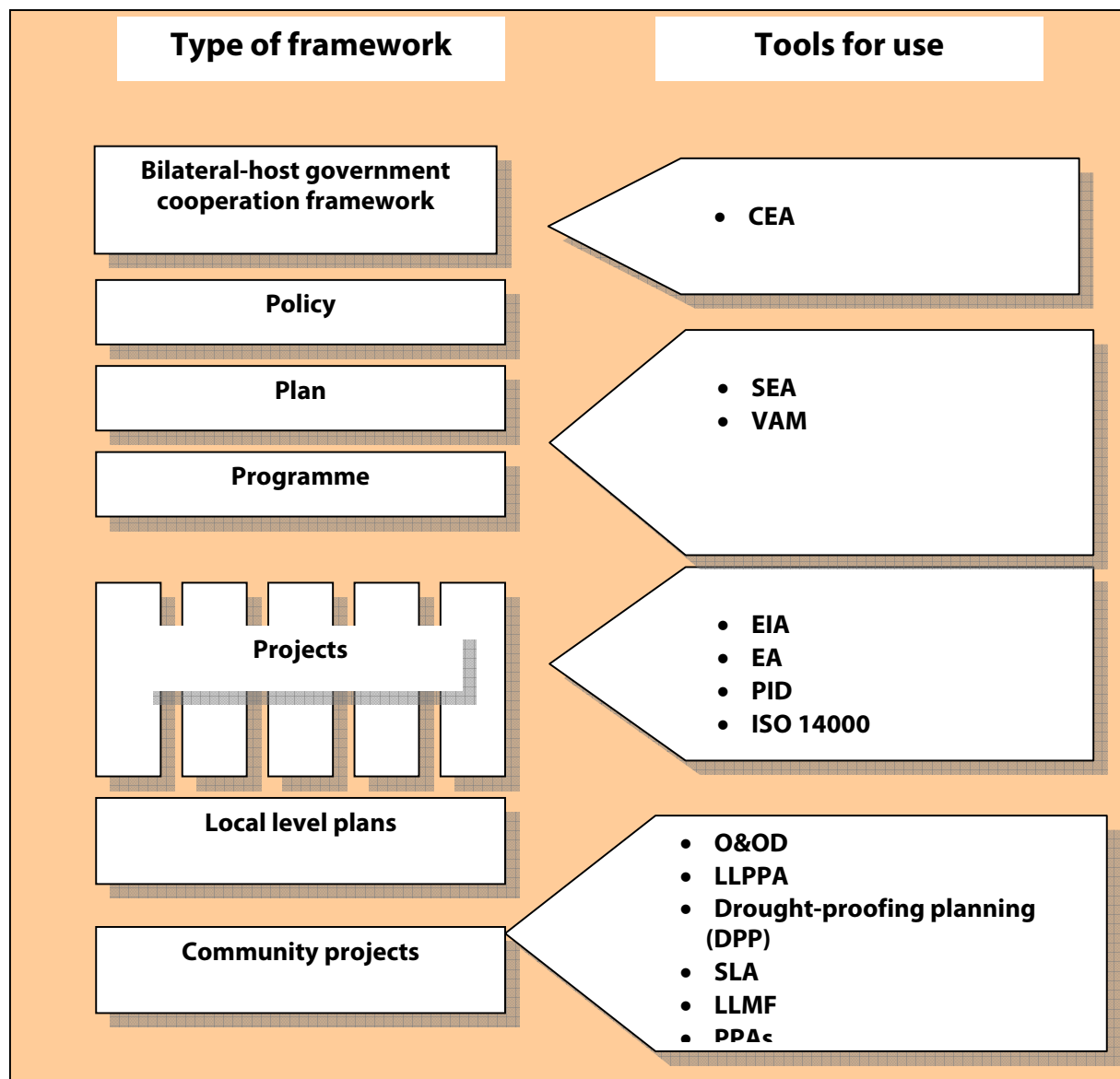
- 96. Countries have established institutions to handle environmental management at different levels: national, sub-national and local. These institutions are fundamental for drylands mainstreaming and they need to develop capacities and systems for that purpose and for providing technical guidance to other institutions lacking a comparative advantage. However, for problems of a regional or trans-boundary nature, regional institutions are the appropriate entry points for drylands mainstreaming. Importantly, governments must ensure that all such institutions are sufficiently funded.
- 97. In an endeavour to institutionalize the culture of environmental mainstreaming, ministries and institutions can formulate guidelines that indicate the 'when', 'how' and 'who' of mainstreaming. This is called procedural mainstreaming (Annex 1). To serve this purpose, those responsible for making such guidelines should (i) involve as many people as possible to formulate guidelines, (ii) disseminate them widely and (iii) provide training for those who implement mainstreaming before they use the guidelines.

6.3 Tools for assessing environmental, economic and social impacts

- 98. As mentioned previously, sustainable development requires a strategic approach that takes into account the interactions among environmental, economic and social issues. The problem tree analysis tool in Annex 7 can shed light on the cause-and-effect aspect of the identified problem. Practically, impacts are assessed and addressed at different levels of scale and using a variety of tools, as demonstrated in Figure 6.1. Some are used at the planning stage, while others may be used for monitoring compliance. Tools used at the local or community level can also empower the poor to participate in planning and decision-making. As well, tools used for monitoring can promote accountability.
- 99. As mentioned above, countries should sign cooperation frameworks with donors and multilateral financial agencies. Those signing such frameworks hold the responsibility for mainstreaming drylands. Often, as part of the process of negotiating cooperation frameworks, development agencies such as the World Bank, the Asian Development Bank, the African Development Bank, etc. carry out country environmental analysis (CEA) as a procedure of their programming. This is a flexible tool with three main analytical building blocks: (i) assessment of environmental trends and priorities, (ii) policy analysis and (iii) assessment of institutional capacity for managing environmental resources and risks (World Bank, 2002).
- 100. As shown in Figure 6.1, as one moves to the lower levels the type of tool changes. EIAs and environmental audits are useful at the project level, whereas at local level the tools become less sophisticated and more participatory, with components that empower communities and

build their capacities. For details on these tools and how and when to use them, refer to Annex 1.

Figure 6.1 Matching impact assessment tools with type of planning frameworks



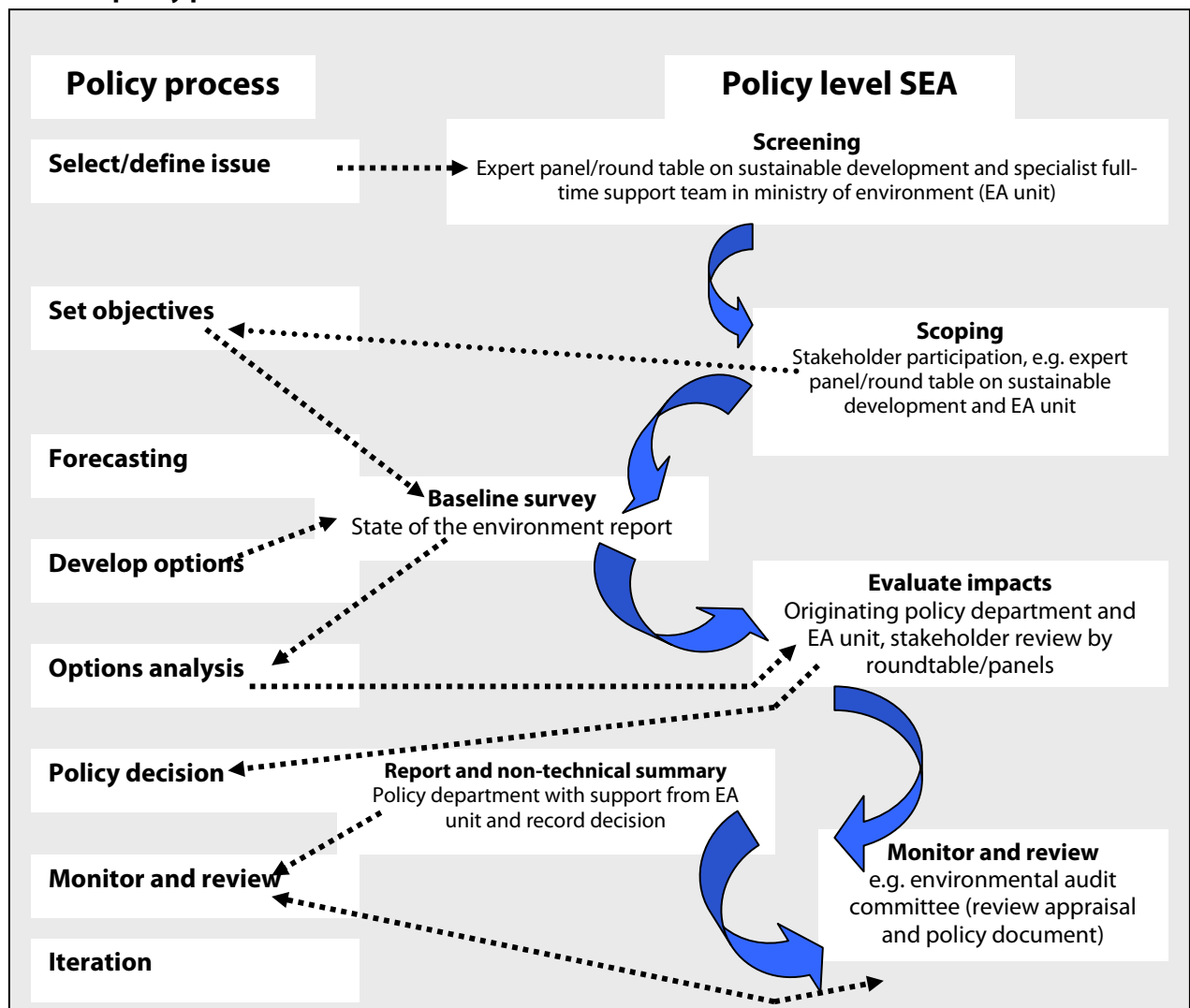
101. At the national level, governments can use SEA to assess likely impacts from the implementation of national policies, plans and programmes. The guidelines definition of SEA combines the essential parts of two well-known definitions of SEA (Therivel et al., 1992; Sadler and Verheem, 1996).

“A Strategic Environmental Assessment is a systematic process of evaluating the environmental consequences of a proposed policy plan or programme initiatives in order to ensure they are fully included and appropriately addressed at the earliest stage of decision-making on a par with economic and social

considerations, including a written report and the involvement of the public throughout the process.”

102. Figure 6.2 below illustrates how elements of SEA may already exist in the form of other processes or tools. It demonstrates how these different elements can be linked together to form a more systematic SEA process. The benefits of such a systematic process would include: integrating environmental considerations throughout the policy cycle; coordinating inputs (both horizontally and vertically) from different institutions, and providing a communication and reporting framework within which environmental integration can be prioritized, implemented and monitored. The advantage of linking these different *ad hoc* elements together to help deliver SEA at the policy level lies in the systematic treatment of environmental considerations throughout the policy-making cycle.

Figure 6.2 Scheme for integrating examples of existing processes and tools into the SEA and policy process



6.4 Tools used for resource use planning and management

103. These include tools such as geographic information systems (GIS), integrated ecosystem planning and management, strategic territorial plans, landscape planning and ecological zoning maps. These tools all offer useful insights into optimizing environmental and social economic benefits while aspiring to maintain and restore ecosystem structure and functions. They help countries that previously created planning for forests, wetlands, land, energy, fisheries, wildlife, etc. in isolation from one another to take a more holistic approach. They are powerful tools to use in the emerging SLM programmes.

6.5 Analytical tools

104. Once impacts have been assessed or potential land use options delineated, one can use analytical tools to establish the most viable or attractive options. These tools owe their origin to different disciplines such as cost-benefit analysis (economics), natural resource valuation (resource/environmental economics), social impact analysis (sociology) and ecological assessment (ecology), etc. They are best used in a multi-disciplinary manner at the appraisal stage, before going into full implementation. The major ones are briefly described below:

a. Cost-effectiveness analysis

The term 'effectiveness' implies that a measure is capable of achieving its intended results. This relates the effects of an intervention to the total amount of inputs (total costs) needed to produce these effects, with the aim of minimizing the costs. Typically, cost-effectiveness analysis involves calculating a cost-effectiveness ratio using the 'least-cost method', which holds the output constant and seeks the cheapest way to achieve it (e.g. least cost per unit of CO₂ abated). Full cost-effectiveness analysis, which includes external costs in the calculation, can also be used.

b. Cost-benefit analysis

Cost-benefit analysis (CBA) entails the identification and monetary evaluation of the anticipated economic and social benefits and costs of proposed public initiatives. A measure is considered justified where positive net benefits can be expected from the intervention. The main difference between CBA and cost-effectiveness analysis is that the results are evaluated and translated into net monetary benefits.

c. Risk analysis

Risk analysis refers to assessing the risk to individuals and to society of the occurrence of an undesirable event and the possible consequences if it occurs (i.e. impact identification). Risk appraisals can then be used to determine what options are available to reduce or eliminate the risk and/or its consequences. Risk management is an activity conceptually distinct from risk assessment or valuation and involves a policy outlining whether and how to respond to risks to health, safety and the environment. The appropriate level of 'accepted risk' is a policy choice rather than a scientific one.

d. Multi-criteria analysis

Multi-criteria analysis (MCA) is also called multiple-attribute or multi-objective trade-off analysis and compares how well various alternatives achieve different objectives—it helps to identify a preferred alternative. MCA involves:

- i. Choosing relevant assessment criteria for each type of impact/indicator;
- ii. Identifying alternatives for consideration (for instance, different approaches to habitat management or different development scenarios);
- iii. Scoring how each alternative affects each indicator;

- iv. Assigning a weight (value of importance) to the indicator;
- v. Aggregating the score and weight of each alternative.

MCA acknowledges that society is composed of diverse stakeholders with different goals and values, and that some impacts ‘matter’ more than others. MCA can be used in a variety of settings, including public participation, as well as to compare alternatives. However, it can also be used to ‘twist’ data and it can lead to very different results depending on who establishes the weighting and scoring systems (Box 6.3).

Box 6.3 Example of MCA: Choice of housing sites

Assume that planners are considering three locations for a new housing development: A, B and C. They are concerned about noise, wildlife sites and landscape. Assessment criteria for wildlife could be: +2—Greatly improve quality of designated wildlife sites, +1—Somewhat improves their quality, down to -2—Greatly reduces their quality. The planners feel that A=+2, B=-2 and C=+1 for wildlife sites. They make similar judgments for noise and landscape. They would then rank wildlife sites in comparison with noise and landscape: in this example, for instance, they assume that noise is three times as important as wildlife or landscape. The table below shows the final aggregation: B would be the preferred location, being the highest in the weighted scores.

Criterion	Weight (W)	Location					
		A		B		C	
		Score (a)	a x w	b	b x w	c	c x w
Noise	3	0	0	+1	+3	-2	-6
Wildlife	1	+2	2	-2	-2	+1	+1
Landscape	1	-2	-2	0	0	0	0
Total			0		+1		-5

Source: Countryside Council for Wales et al. (2004)

6.6 Tools that evaluate effectiveness of mainstreaming

- 105. A test case for drylands mainstreaming is increased investment for drylands interventions. The questions in Table 6.2 help determine whether a country is committed to supporting the planning frameworks in budgets. The weights against each question can be agreed upon by the country. The checklist can provoke very serious debate and action in favour of drylands mainstreaming.

Table 6.2 Checklist to test the linking of planning frameworks to budgets

Questions to raise	Yes	No	If yes, assign the following weight
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Lessons from Mainstreaming Environment with a particular focus on Drylands issues into National Development Frameworks

			to the question
1. Were the drylands issues reflected in the planning framework?			10
2. Was the planning framework actually approved?			5
3. Did the budget estimates made for the above planning framework also include those to deal with identified drylands issues?			5
4. Were the budget estimates approved?			5
5. Was the approved budget for drylands issues actually released?			10
6. Was the released budget for drylands issues spent on the right goods and services as per the planning framework?			10
7. Were the goods and services given to the identified institution for implementation of drylands issues?			20
8. Did the identified implementing institution have the incentive to implement drylands management activities?			15
9. Did drylands households or communities take advantage of the activities that were implemented?			15
10. Did the lessons from the chronology of the above inform subsequent planning and budgeting processes?			5
Total score			100

106. The questions in Table 6.3 can be used to test for the effectiveness of mainstreaming as a whole. The questions for each criterion are only illustrative and can be modified. The scale used to rank assessors perceptions ranges from 1 to 5, with 1 being the lowest value and 5 the highest. The important aspects to capture are the explanations for their scoring. They give pointers to the corrective measures needed.

Table 6.3 Tool for evaluating the effectiveness of mainstreaming processes

Criteria	Scale					• Evaluation questions
	1	2	3	4	5	
1. Political leadership						<ul style="list-style-type: none"> • How supportive is the political leadership on environmental and drylands issues? • Do key individuals in government hold environmental responsibilities? • Is there a national strategy for sustainable development?
2. Institutional commitment						<ul style="list-style-type: none"> • Are there institutions specifically mandated for environmental management? • Are they committed to drylands mainstreaming? • Are the institutions responsible for planning and finance equally committed to environmental and drylands mainstreaming?
3. Coordination						<ul style="list-style-type: none"> • Is there an institution that coordinates environmental mainstreaming? • Is it well staffed, with technical backstopping? • Are there subcommittees, sector working groups or task forces on environmental mainstreaming? • Have they been successful in advocating for environment and drylands issues in particular?
4. Participation						<ul style="list-style-type: none"> • Was planning done in a participatory manner? • Did the direct beneficiaries participate? • Was there a plan to cost-effectively manage the participatory/consultative processes?
5. Communication reporting						<ul style="list-style-type: none"> • Are there good and regular communication links among the institutions and groups involved in mainstreaming? • Is there sharing of information on mainstreaming practices? • Is the media used to disseminate emerging good practices?
6. Guidance training						<ul style="list-style-type: none"> • Was staff trained before they undertook mainstreaming?

Lessons from Mainstreaming Environment with a particular focus on Drylands issues into National Development Frameworks

						<ul style="list-style-type: none"> • Were they guided by experts knowledgeable in mainstreaming? • Were guidelines available to the staff?
7. Awareness raising						<ul style="list-style-type: none"> • Were all staff in the organization that lead the mainstreaming initiative made aware of its importance and steps? • What about the general public? • Were awareness campaigns conducted for the political leadership?
8. Appraisal/Assessment						<ul style="list-style-type: none"> • Was the assessment of likely impacts made? • Was the assessment of potential developmental opportunities from drylands also made? • Were the particular environmental, economic and social challenges of drylands articulated?
9. Mainstreaming tools						<ul style="list-style-type: none"> • Are tools or guidelines for mainstreaming available? • Are they being followed? • Is training made available for the users?
10. National/local sustainability						<ul style="list-style-type: none"> • Are there national and local sustainability strategies (e.g. District Environmental Action Plan [DEAPs])? • Does government increasingly finance mainstreaming processes? • Are institutions orienting their staff to adopt mainstreaming culture?
11. Targets/objectives/indicators						<ul style="list-style-type: none"> • Were baseline indicators/benchmarks to mainstreaming created? • Were objectives set very clearly? • Were target indicators reflected in the respective planning framework?
12. Allocation of spending and actual funding						<ul style="list-style-type: none"> • Are the plans made linked to the budgeting framework or other funding mechanisms? • Were approved budgets actually spent? • Are PETS regularly conducted?
13. Monitoring/auditing						<ul style="list-style-type: none"> • Does the monitoring framework include

						<p>monitoring of mainstreamed issues?</p> <ul style="list-style-type: none"> • Are the mainstreamed issues sufficiently reported upon? • Is there a culture to share the ToR for hiring consultants to review mainstreaming well in advance?
14. Learning and advocacy						<ul style="list-style-type: none"> • Are lessons systematically being drawn and shared? • Are the lessons used for policy advocacy, reform and addressing of barriers to mainstreaming processes?

6.7 Criteria for selecting tools for mainstreaming

107. There are many tools to use for mainstreaming environment at different levels of planning frameworks. Annex 1 is just an inventory of both current and planned tools by countries. Although others are not included, they are equally important (e.g. laws, regulations, standards, curricula and donor cooperation frameworks).
108. Note that tools are not mutually exclusive. For example, if a government has to raise revenues to fund environmental initiatives through environmental taxes, it will need a legal instrument. Tools such as cost-benefit cost analysis, social impact assessment and MCA can be used while conducting an EIA.
109. Overall, the choice of tool should be guided by a combination of the following criteria:
 - i. The objective;
 - ii. The relevance of the tool to the problem under analysis;
 - iii. The technical capacity to use the tool;
 - iv. The data requirements that are available or that can be supported in the process of using the tool;
 - v. Whether the proposed timeframe for use of the tool is realistic;
 - vi. Whether there are enough funds to support the use of the tool;
 - vii. The availability of any required software, e.g. ArcView software for GIS;
 - viii. The political, economic and social climate with regard to receptivity towards findings from the use of the tool.

7 Conclusions

110. These generic guidelines for drylands mainstreaming should prove to be a valuable tool for countries. Drylands have faced particular developmental challenges that make them less visible in planning frameworks than environment and natural resources issues generally. The poorest people live in drylands, while at the same time drylands have experienced high population growth rates. Such a situation needs affirmative action. Drylands have environmental, economic and sociocultural values, which if sustainably harnessed could transform the livelihoods of its inhabitants. Political goodwill is paramount in this regard.
111. This document has demonstrated that, by prioritizing MDG 7 (ensuring environmental sustainability) and specifically drylands mainstreaming, countries will also be able to deliver on other MDGs, whereas the reverse has also been shown. Failure to address the developmental challenges for drylands described above will hold back countries' progress on all MDGs.
112. These guidelines have been developed to influence action at several levels of planning and policy engagement. Actions at all levels will create the synergistic and critical pressure needed to put and maintain drylands at a place of priority on the developmental agenda. One implication is that capacity building for drylands mainstreaming must be undertaken at all levels.
113. The guidelines have described the steps in mainstreaming processes. Although the steps may differ by country or planning framework, they provide an overview of the entry points for drylands mainstreaming. Planning is an iterative process, and this must be kept in mind when using the guidelines. Many steps can take place simultaneously.
114. Countries have made use of various tools to enhance awareness, capacity and participation in drylands mainstreaming. Many factors dictate the choice of tools, including the nature of the problem to be addressed, the capacity to use the tool, the resources available and the socio-political receptivity of the findings from the use of a tool. These guidelines should be adapted to suit countries' particular needs. This process of adaptation requires an effective negotiation process that demonstrates the win-win opportunities to development or poverty eradication programme planners and implementers, as well as to drylands practitioners and communities.

Part II:
**Lessons Learnt from Mainstreaming Drylands Issues
into National Development Frameworks**

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Executive summary

This is an evidence-based report from a desk review study commissioned by the United Nations Development Programme Drylands Development Centre (UNDP-DDC) to document the lessons learnt and challenges faced by 21 countries¹⁴ as they tried to mainstream environment issues with a particular focus on drylands into national development frameworks. In partnership with UNDP-DDC are other organizations, notably the Global Environment Facility (GEF) and United Nations Environment Programme (UNEP). The need for these guidelines was expressed at a workshop on Mainstreaming Drylands Development issues into National Development Strategies, organized by UNDP-DDC in March 2006.

A key lesson learnt is that the economic values of drylands can only be enhanced with a clear understanding of their particular ecological, social and institutional characteristics. The fact that populations are growing in drylands should compel countries to prioritize investments there. It is an obligation to protect the human rights of drylands peoples.

Successful drylands mainstreaming pre-supposes knowledge of planning and decision-making centres in a country. These provide the space for engagement. Countries have formed national planning commissions to guide development planning. Some countries follow decentralized structures for planning, budgeting, resource mobilization, and monitoring and evaluation (M&E), while others have centralized structures.

Parallel to the national development planning processes are the environmental planning processes, which are mainly spearheaded by apex national environment management authorities. In addition to all of the above, other institutions focusing on forestry, water, fisheries, wetlands, and wildlife have been established during the recent reforms in these sectors. While the United Nations Conference on Environment and Development (UNCED) was catalytic in bringing about environmental reforms in various countries, it is now emerging that countries need to re-assess and evaluate the institutional landscape for environmental governance; specifically, the financial implications of sustaining them must be studied. The vertical and horizontal coordination is still a big challenge. This challenge is heightened in countries where the administrative government structures interface with the traditional or cultural institutions that differ in methods of work and culture of decision-making. On a positive note, the interface between the institutions responsible for development planning and environmental planning is improving. This interface offers opportunities for drylands mainstreaming.

Mainstreaming has been defined in the 2004 UNDP Environmental Mainstreaming Strategy as the integration of environmental policy considerations into core institutional thinking with other policies and related activities, as well as with coordination and harmonization to ensure policy coherence. This definition has been adopted by many countries (UNDP, 2004).

The growing desire to reconcile the economic, social and environmental objectives of sustainable development is the cornerstone for mainstreaming. It is now in the interest of countries with drylands to take on economic, social and environmental decisions in a mutually re-enforcing way to achieve 'win-win' solutions. Changes to environmental services as part of a development process appear as 'invisible transactions' or externalities because they have no price in any recognized market. Drylands are less visible due to negative perceptions about them and their populations.

Environmental resources play a key role in the livelihoods of the poorest communities and contribute to national economic growth. Mainstreaming environment into national development strategies therefore ensures that the contribution of environmental resources to the national economy and improvement of livelihoods is captured. Mainstreaming also protects human rights and promotes good governance; it can also contribute to stability and peace. Above all, mainstreaming drylands-focused environmental issues is a legal requirement, especially to the countries that have ratified the United Nations Convention to Combat Desertification (UNCCD).

There is a conviction that unless environmental issues—and drylands issues in particular—are well articulated in the planning frameworks they might not influence decisions relating to the required resource

¹⁴ National Country Reports can be found at www.undp.org/drylands

mobilization and allocation. In turn, this could further exacerbate the social, economic and ecological consequences, including holding back the attainment of the Millennium Development Goals (MDGs). Evidence from the review of 11 PRSPs shows that despite their particularities, drylands do not prominently feature; an omission of trends in funding drylands among country reports was observed. Drylands issues must be given affirmative action.

Countries consider the preconditions for mainstreaming as being (i) political commitment and country ownership, (ii) good governance, (iii) knowledge and information and (iv) resources. Further, they consider the key principles to include (i) stakeholder participation, (ii) empowerment, (iii) sustainability and (iv) accountability.

Experience from the countries included in this analysis has shown that although decision-making in planning generally takes a linear model, there are very many situations when it is non-linear. In the former case, it is easier to plan for mainstreaming because the starting and ending times and the lead institutions are known in advance. In the latter case, the main challenge lies in identifying the windows of opportunity for drylands mainstreaming. In light of the above, planning generally follows the above steps, some of them being carried out in parallel.

Countries have tried several tools for mainstreaming. Some impose legal obligations, while others define the procedural approach to mainstreaming (e.g. guidelines). Some tools are used to analyze complex decisions of trade-offs (e.g. cost-benefit analysis, multi-criteria analysis [MCA]) while others guide participation, resource mobilization, communication and awareness creation. The choice of tools within a country's mainstreaming process is dictated by a number of factors, including the readiness of the country to appreciate and use the findings, the capacity to use the particular tool and the available resources and the objectives for which the tool is used.

A number of lessons have emerged. Mainstreaming is inherently expensive and time demanding. It requires careful planning and coordination. The non-state actors are as important as government actors. Champions have been instrumental in sustaining mainstreaming, and guidelines—where provided—have been very useful. Donors have a special role in drylands mainstreaming processes and their roles in promoting the implementation of the UNCCD as *chef de file*¹⁵ is noted. Countries are also challenged to go beyond merely reflecting drylands in planning frameworks. They must actually allocate resources for the prioritized activities and monitor the resultant impacts.

A few challenges still exist, such as negative attitudes (e.g. regarding drylands as wastelands), low political will, too many plans sharing small budgets and the difficulty of capturing the voices of the poor living in drylands. An 'implementation gap' is seen in all countries, mainly because of the weakness of systems and institutional and individual capacities, particularly because mainstreaming processes have overloaded the assessment of these capacities. The multiplicity of institutions focused on the ENRs at a time when funding for them is insufficient is also an area countries need to address. Presence of these institutions is often lacking in drylands. Countries would also need to respect traditional institutions, which have a history of building upon indigenous knowledge to address local problems.

In order to maintain the momentum for mainstreaming, governments, donors and civil society in general must work together to deliver on (i) poverty reduction and achievement of MDG outcomes, (ii) capacity building for drylands mainstreaming outcomes, (iii) broadening funding options to environment outcomes and (iv) processing and transferring knowledge on drylands outcomes.

¹⁵ A *chef de file* is responsible for taking the lead in coordinating the implementation of the UNCCD among donors, as well as to provide technical assistance as required in the preparation for National Action Plans.

1 Introduction

1. This synthesis report on was initially conceived by the United Nations Development Program Drylands Development Centre (UNDP-DDC). Later, UNDP forged a partnership with others, especially the UNDP Global Environment Facility (GEF) and United Nations Environment Programme (UNEP).
2. The report contains experiences and lessons of 21 countries¹⁶ and other development partners working in the area of environmental mainstreaming. The contributions of the 21 countries to this body of learning are summarized in Annex 10. This report is the first of its kind to document and benchmark lessons and challenges of drylands mainstreaming across Africa, Asia, and Latin America.
3. This joint initiative has a history: UNDP, through the DDC and the Energy and Environment Group (EEG), has provided assistance in environmental mainstreaming to various countries. In particular, the DDC has developed a programme on Mainstreaming Drylands Development issues into National Development Strategies in the context of the United Nations Convention to Combat Desertification (UNCCD) implementation.¹⁷ Meanwhile, the Global Mechanism (GM) of the UNCCD is developing guidelines for mainstreaming national action programmes (NAPs) of the UNCCD into development frameworks. The GEF too has supported sustainable land management (SLM) in the least developed countries (LDCs) and small island developing states (SIDS) following the GEF Council approval of the LDCs and SIDS Targeted Portfolio Project for Capacity Development and Mainstreaming of Sustainable Management Initiative in November 2004.
4. Further, UNDP and the UNEP have forged a global partnership called the UNDP-UNEP Poverty-Environment Initiative (PEI). It aims to scale up investment and capacity development support for mainstreaming environment in country-led processes to achieve MDG-based poverty-reduction strategies. At the country level, UNDP has found that there are other development partners, non-governmental organizations (NGOs), private institutions and governments with differing experiences in mainstreaming, and whose lessons are equally relevant for learning and knowledge sharing. It is in this broad context that the relevance of this report is placed.
5. The main objective of this document is to share country experiences, lessons learnt, challenges and opportunities for mainstreaming drylands issues into national development strategies. These lessons will also provide the readers with the information on the different tools that countries have used in mainstreaming. It also provides useful sources of information that countries can tap to assist in mainstreaming endeavours.

1.1 Limitations of the national case studies

6. The countries' individual contributions to the lessons learnt study vary, with some countries placing a focus on experiences of mainstreaming drylands specifically, others on mainstreaming environment generally into planning frameworks and yet others on mainstreaming environment in poverty reduction strategy papers (PRSPs) only. A summary of the contributions is provided in Annex 10.
7. In some cases, specific documentation on drylands mainstreaming was scanty or non-existent. Because of this, many national reports subsumed drylands under the term environment and natural resources (ENRs). That implies that they used the term 'environment' interchangeably with 'drylands' in many sections of their reports. Some made reference to important aspects of the study—for example, on tools for mainstreaming, institutions, governance, etc.—without elaborating further.
8. A major shortcoming is that countries did not specify the level of investment in drylands as a result of the mainstreaming efforts that were undertaken. This is an area worthy of a study in the future. Attempts to fill information gaps through Internet searches did not always yield positive results, and

¹⁶ Argentina, Bangladesh, Barbados, Benin, Bolivia, Burkina Faso, China, Ethiopia, Ghana, India, Kenya, Mali, Morocco, Mozambique, Namibia, Niger, Rwanda, Samoa, Tanzania, Tunisia and Uganda

¹⁷ The 13 countries benefiting from this programme are: Benin, Ethiopia, Ghana, Kenya, Mali, Morocco, Mozambique, Niger, Tanzania, Tunisia, Sudan, Syria and Uganda.

where they could have access to websites was restricted. However, the international workshop on Mainstreaming Environment with a Particular Focus on Drylands into National Development Frameworks held in Bamako, 18–20 June 2007 to disseminate the findings from the national case studies helped to fill some of the gaps. Accordingly, the above notwithstanding, the wealth of generated evidence is strong and supportive of the key messages and recommendations given throughout the report.

1.2 Structure of the report

9. This synthesis section is structured into 10 chapters. Chapter 2 addresses the values and developmental challenges of drylands. A brief description of countries that have initiated mainstreaming processes is provided in Chapter 3. Chapter 4 reviews the planning frameworks and institutional set-up for mainstreaming. Chapter 5 explores the practices and steps in the mainstreaming process, as documented by the countries listed in Annex 10. Chapter 6 is devoted to the tools used in mainstreaming. Chapter 7 provides a summary of tactics countries have used to sway their governments to support mainstreaming. Chapter 8 summaries the key lessons and challenges and Chapter 9 provides the key findings and proposals for the way forward. The conclusions are given in Chapter 10.

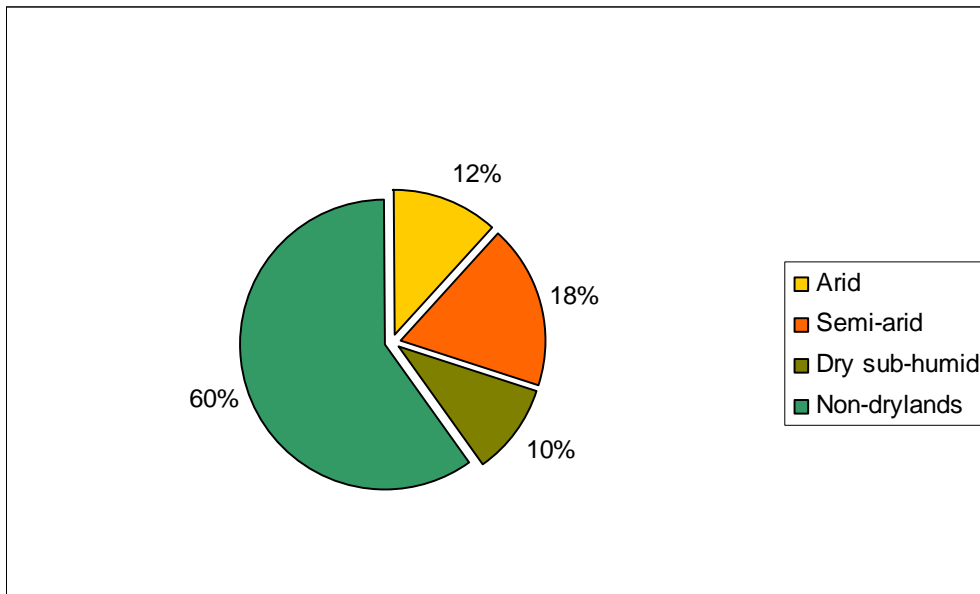
2 Understanding the values and developmental challenges of drylands

This chapter provides the characteristics of drylands and the rationale for their mainstreaming in all types of frameworks that can give effect to implementation of drylands-related interventions. In short, drylands have environmental, economic and socio-cultural values that need to be harnessed. They also entail particular developmental challenges, which have to be taken into account in the design and implementation of development frameworks.

2.1 Characteristics of drylands

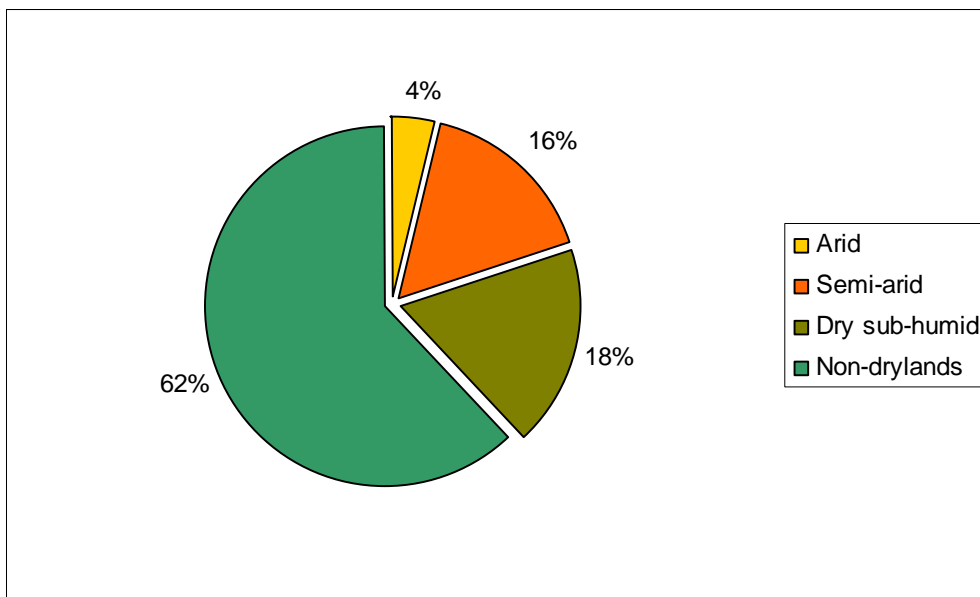
10. Drylands are conventionally defined in terms of water stress; as terrestrial areas where the mean annual rainfall (including snow, fog, hail) is lower than the total amount of water evaporated to the atmosphere. This definition usually excludes the Polar Regions and high mountain areas, which, on account of their low average rainfall, can also be classified as drylands.
11. The World Atlas of Desertification (Middleton and Thomas, 1997) defines drylands as areas with an aridity index of less than 0.65. Drylands are characterized by a scarcity of water, which constrains their two major interlinked services, namely primary production and nutrient cycling. Drylands are not uniform, however; they differ in the degree of water limitation. Following the UNEP terminology, four drylands subtypes are recognized based on an increasing level of aridity: dry, sub-humid, semi-arid, arid and hyper-arid. The level of aridity typical for each of these subtypes is given by the ratio of its mean annual precipitation to its mean annual evaporative demand, expressed as potential evapotranspiration. The long-term mean of this ratio is termed the aridity index.
12. The UNCCD adopted the classification presented in the World Atlas of Desertification (Middleton and Thomas, 1997), which is based on a global coverage of mean annual precipitation and temperature data collected between 1951 and 1980; however, the Convention excludes hyper-arid drylands from consideration. Using index values, the four drylands subtypes can be positioned along a gradient of moisture deficit. Together, these cover more than 6 billion hectares, or 41.3 percent of Earth's land surface. Drylands are not spread equally between poor and rich countries: 72 percent of the world's drylands areas are located within developing countries and only 28 percent within industrial countries. An important justification for investing in drylands or mainstreaming them in development frameworks is that they take up a large proportion (40 percent) of the Earth's surface and 48 percent of the world's population (Figures 2.1 and 2.2).

Figure 2.1 Drylands as proportion of the Earth's surface



Source: UNDP, 1997

Figure 2.2 Percentage of the Earth's population living in drylands



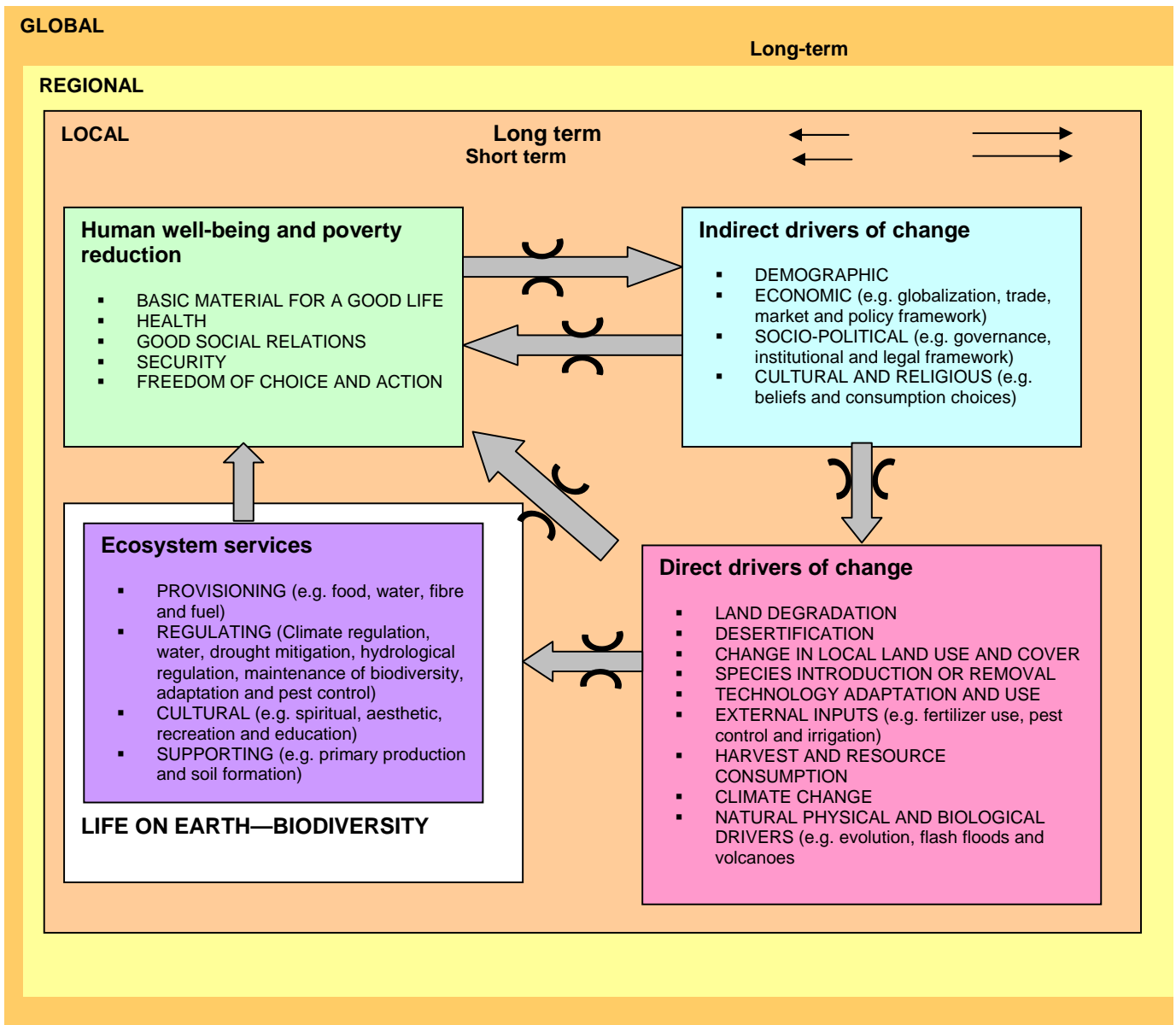
Source: UNDP, 1997

2.2 Conceptual framework linking drylands to human well-being

13. There is a positive relationship between the services drylands provide and human well-being. Drylands ecosystems provide four services—provisioning, regulating, cultural and supporting services—that promote human well-being and poverty reduction. They directly contribute to basic materials for human use, security and society cohesiveness. However, the capacity of the ecosystems to sustain those functions can be undermined by natural, physical and biological factors, poor land use practices, and invasive species. Equally, there are also indirect factors such as high population

growth rates, poor socio-political environment, cultural and religious barriers, market failures or market absence, flawed policies and weak institutional capacities. These issues need to be identified and addressed as part of mainstreaming processes (Figure 2.3).

Figure 2.3 Conceptual framework linking ecosystem services to human well-being



2.3 Values of drylands

2.3.1 Environmental values

14. Mainstreaming of drylands is necessary in order to take advantage of the environmental, economic and social values they offer for poverty reduction. As already mentioned, they cover extensive areas of land. Some 7,000 terrestrial amphibian, reptile, bird and mammal species live in the desert biome. This represents 25 percent of the global terrestrial fauna of these species, 22 percent of which also live in other biomes and 3 percent of which are found exclusively in deserts (Hassan et al., 2005).
15. Grasslands are found in the semi-arid and the dry sub-humid drylands subtypes, and their biodiversity is richer than that of deserts (12 percent and 28 percent, respectively, of the global terrestrial vertebrate fauna are found in these two biomes). Much is known about the functioning of natural grasslands, many of which are used as rangelands. Plant diversity is known to increase productivity. There are many drylands species that are directly used for a range of ecosystem services. One example is the African acacia (Ashkenazi, 1995), which provides material for soil development and conservation (roots, canopy and litter) and forage (leaves and pods are eaten by livestock); it also supports other biodiversity as a large number of animal species depend on it for shelter, shade, nest sites and food.
16. Individual species can also be important providers of a single service, such as individual drylands plant species serving as a 'biogenetic resource' for cross-breeding and improvement of domesticated species to which they are genetically related. It is estimated that 29–45 percent of the world's currently cultivated plants originated from drylands (Food and Agriculture Organization, 1998). Thus, drylands are sources of genetic plant material for developing drought-resistant crop varieties. According to the International Union for the Conservation of Nature (IUCN)-World Conservation Union and World Wildlife Fund (WWF), at least 39 centres of plant diversity (CPD) in drylands have especially high levels of plant diversity.
17. Presently, countries are seeking ways to reduce atmospheric carbon dioxide (CO₂) by increasing carbon storage capacity on land in order to offset global. Drylands, as an ecosystem with extensive surface area across the globe, can store large amounts of carbon, most of it in the soil rather than in vegetation. They have thus been suggested as potential candidates for major carbon storage efforts. All in all, delivering on Millennium Development Goal (MDG) 7 (ensuring environmental sustainability) helps countries to deliver on other MDGs, as shown in Annex 2. This is an important opportunity in the fight against poverty.

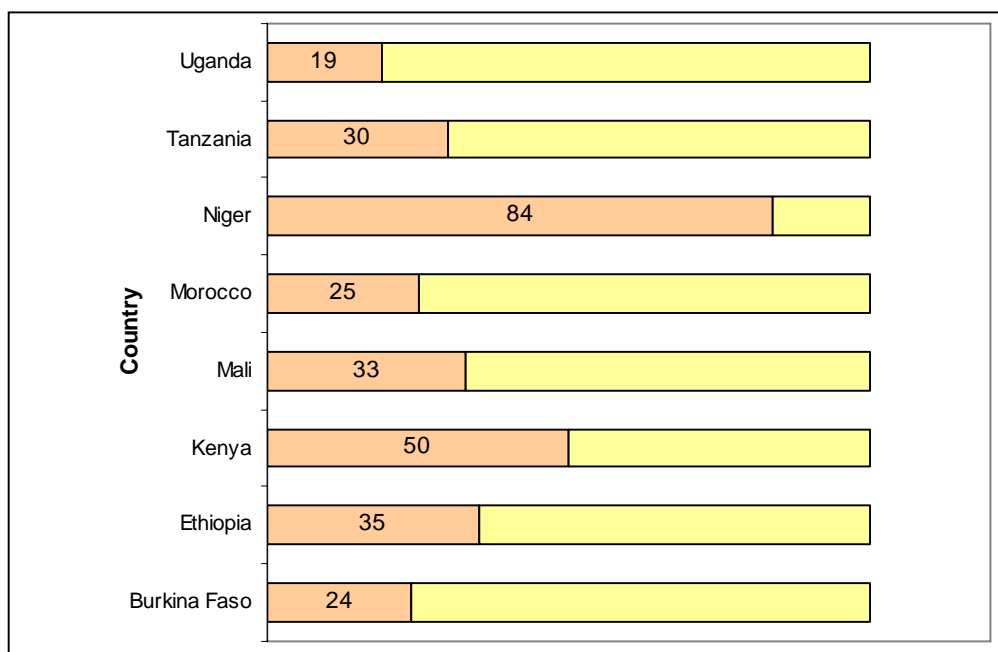
2.3.2 Economic values

18. Croplands cover approximately 25 percent of drylands, and drylands rangelands support approximately 50 percent of the world's livestock. It appears from Figure 2.4 that drylands-based pastoralism contributes greatly to agricultural gross domestic product (GDP) in several African countries. The value of drylands becomes even greater when one considers the entire value chain from production to consumption.
19. Few countries have official agricultural data that is disaggregated to show the contribution of pastoralism, although in some countries the contribution of pastoralism is very significant.
20. Uganda's pastoralist and smallholder livestock producers contribute 8.5 percent of the total GDP, providing the country's fourth biggest foreign exchange earner (Muhereza and Ossiya, 2003). Ethiopia's pastoral-dominated livestock sector contributes more than 20 percent of Ethiopia's total GDP, likely much more if other intermediate values of livestock are properly assessed (Aklilu, 2002). The leather industry is Ethiopia's second largest source of foreign exchange (after coffee); in 1998 alone it exported US\$ 41 million of leather and leather goods, primarily to Europe, Asia and the Middle East (STAT-USA, 2005).
21. Mobile pastoralism provides a highly efficient way of managing the sparse vegetation and relatively low fertility of drylands soils. In essence, pastoralists accept the variability of productive inputs (pasture and rainfall) and adapt their social and herding systems accordingly. As a result, biological

diversity is enhanced as ecosystem integrity and resilience are maintained.

22. Finally, drylands offer opportunities for exploration of wind and solar energy and contain many minerals. In China there is coal, oil, natural gas, non-ferrous metal, hydraulic power resources, etc. in drylands (Dong et al., 1999).

Figure 2.4 Pastoralism as a percentage of agricultural GDP in selected African countries



Source: Hatfield and Davies, 2006

23. Drylands are also attractive for cultural tourism associated with historical and religious sites, for coastal tourism (such as Mediterranean beaches), and for health-related tourism (such as the Dead Sea). Drylands biodiversity is also a major draw for ecotourism. For instance, African savannah safaris are generally designed around a few 'charismatic' large mammal species and mass seasonal migrations of large herbivores, and many tourists fill the resorts along the route of the spectacular seasonal Trans-Saharan bird migration. The significance of the drylands cultural service to tourism is demonstrated in Kenya, where 90 percent of the country's tourists visit a game park (White et al., 2000). Other values are summarized in Box 2.1.

Box 2.1 Values from drylands-based products

- Herds of livestock are both a **source of wealth** and a **source of benefits**
- Livestock, like currency, are a **value-store**
- Herds of livestock act as **insurance** in the absence of government insurance services
- Livestock confer **social identity** and **persistent social association**
- Pastoralism promotes **social capital** and **profitable use of common property resources**
- Pastoralism integrates economies into global trade

- Employment is generated from drylands-based enterprises.

Source: Hesse and MacGregor, 2006

24. Finally, drylands offer opportunities for exploration of wind and solar energy and as a store of minerals.

2.3.3 Socio-cultural values

25. Drylands have been described as the 'unappreciated gift'¹⁸ of nature, and unfortunately many people and institutions consider them as wastelands. Important assets in drylands are its 2 million inhabitants who have adapted to the hardships. They make up one third of the world's population and have high cultural diversity. This indicates that 24 percent of global languages are associated with drylands' grassland, savannah, and shrub land biomass. Typical to drylands are the diverse nomadic cultures that have historically played a key role in the development of drylands farming systems (Hillel, 1991).
26. Many groves, tree species and individual trees have spiritual significance to drylands peoples, due to their relative rarity, high visibility in the landscape and ability to provide shade. The sites of individual trees have been used for anointing rulers, hosting legal hearings, burying community and religious dignitaries, and religious rituals; individual trees themselves have become sacred and named after deities. These sacred groves often conserve islands of indigenous ecosystems in a transformed landscape and contribute to a unique cultural landscape (see Box 2.2).

Box 2.2 Promotion of sacred grove establishment and maintenance in Ghana

Indigenous knowledge and beliefs of environmental management forms an integral part of drylands development activities in Ghana. Over one hundred sacred groves are currently established in the three northern regions and their flora and fauna are being protected through the use of taboos and local rules and regulations. Traditional authorities are encouraged by the District Assemblies and Environmental Protection Agency (EPA) to designate more areas as sacred groves, especially those areas that are believed to be the abode of their gods. The traditional authorities mobilize and sensitize the communities to the importance of reforestation and provide the necessary land space needed for the project.

Source: Osei-Amakye and Acquah, 2007

27. Furthermore, drylands have high heritage value. This value can be nurtured either by landscapes that reflect the human striving for 'conquering the desert' or by those reflecting aspirations to 'live with the desert'. Actions to conserve outstanding cultural heritage sites are underway (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2004) and 21 such sites have been identified, eight of which are in drylands.
28. Drylands ecosystems also contribute to human culture through both formal ('scientific') and indigenous knowledge systems. The latter systems have co-evolved with the cultural identity of drylands peoples, and their environment and its natural resources and have generated many unique systems of water harvesting, cultivation practices, climate forecasting and the use of drylands medicinal plants. The lack of use of this knowledge in many cases has often led to adoption of

¹⁸ Related to White, R.P. and Nackoney, J. [2003]: *Drylands, People and Ecosystem Goods and Services. A web-based geospatial analysis.*

unsustainable technologies. The explanation, conservation, and integration of drylands traditional knowledge with adapted technologies have been identified as priority actions by the Committee of Science and Technology (CST) of the UNCCD (International Convention to Combat Desertification [ICCD], 2000).

29. There are outstanding literary and historical examples for inspiration generated by drylands landscapes (such as the Old and New Testaments). Drylands ecosystems are also a source of inspiration for non-drylands people. The 1950s Walt Disney film *The Living Desert* brought desert ecosystems and biodiversity to the attention of millions prior to the television era and was declared 'culturally significant' in 2000 by the US Library of Congress.¹⁹

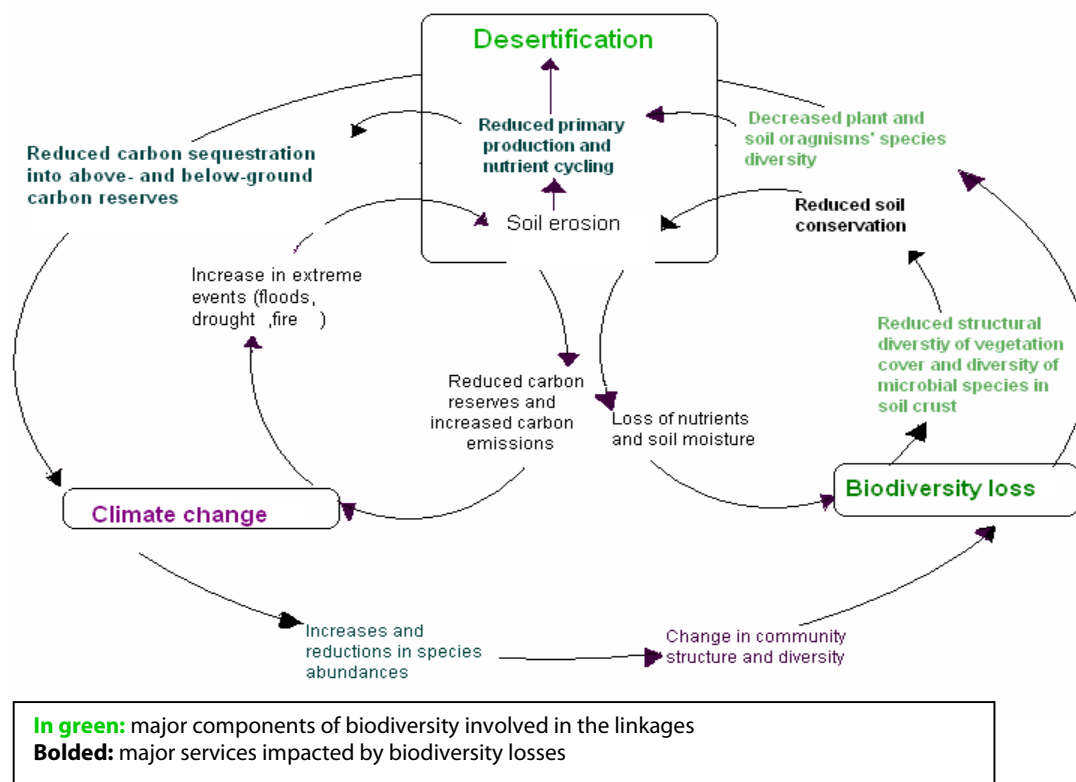
2.4 Developmental challenges of drylands

2.4.1 Environmental challenges

30. An overriding feature of drylands is their low—but highly variable—precipitation and it is this variability as much as the low quantity that gives drylands their special features; these in turn create special challenges.
31. **Water deficit** due to the low, erratic and unpredictable rainfall, often with intermittent droughts, denies the drylands communities an opportunity to have the long-term and predictive perspective that is typically reflected in planning and financing frameworks. The situation is expected to worsen in the future. Water is projected to decline further from the current average of 1,300 cubic meters per person per year (in 2000), which is already below the threshold of 2,000 cubic meters required for minimum human well-being and sustainable development (Millennium Ecosystem Assessment, 2005b). Under such circumstances, countries may fail to deliver on MDG 7, particularly with regard to increasing access to clean and safe water.
32. **Climate change** is associated with high rates of evaporation that differentiate drylands from other areas. It is likely to increase the frequency of drought and related risks every 30 years, compared to every 100 years in the past. The drylands populations must thus be supported in order to mitigate and adapt to climatic change.
33. **Droughts are** not only common but also increasing. They result in famine and negative effects such as intrauterine growth retardation in the unborn, as well as deficiencies in several micronutrients that are vital for the growth and development of children. These deficiencies can result in anaemia and reduced immunity in children, making them susceptible to infections.
34. **Land degradation**, which is estimated at 10–20 percent in drylands, not only threatens human livelihoods but also the habitats for niche plants and animals. Some of these irreplaceable endemic plants provide alternative crops needed to deliver on MDG 1 (food security) and medicinal plants required to deliver on MDG 6 (combating HIV/AIDS, malaria and other diseases), particularly with respect to provision of access to affordable drugs made from plants by pharmaceutical companies (Millennium Ecosystem Assessment, 2005a). In the drylands, land degradation is particularly evident around permanent settlements and water points where livestock mobility is restricted. All in all, such degradation threatens biodiversity conservation and perpetuates climate change, as illustrated in Figure 2.5.
35. **Externalities** in the use of natural resources are usually ignored by those perpetuating them. They remain 'invisible transactions' because they have no price in any recognized markets. In the development process, an externality is an unintentional effect of a transaction that is external to the intervention.

¹⁹ Millennium Ecosystem Assessment, 2005b, p. 633

Figure 2.5 Linkage and feedback loops among desertification, global climate change and biodiversity loss



Source: Millennium Assessment Ecosystems, 2005a

2.4.2 Economic challenges

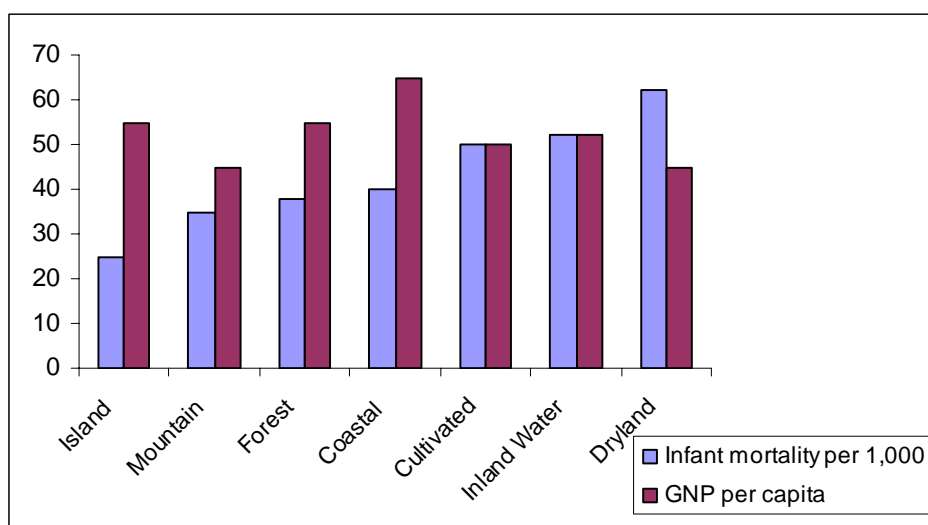
36. Drylands degradation for example, costs developing countries an estimated 4–8 percent of their gross national domestic product each year.²⁰ During drought periods, people in the drylands emigrate to more hospitable environments, either to cities within their own country or to less stricken areas in foreign nations. This places additional economic and environmental pressures on areas that are already fragile and overburdened.
37. Research has shown that areas with drier and more difficult physical environments but with better market access may out-perform more favoured areas in terms of economy, natural resource conditions and human welfare. The relative poverty of drylands is often the result of historical under-investment rather than lower economic potential.
38. **Poor markets and infrastructure** in drylands makes it difficult for the inhabitants to add value to their products; therefore they cannot favourably compete in the market. In addition, qualified personnel from other areas lack the motivation to work in drylands due to inadequate or lack of social services. In most developing countries for instance, drylands areas record very low doctor/patient ratios.
39. **Private sector investment** is further constrained because of a lack of or limited road networks, banking services, energy and telecommunications. It is unlikely that the situation will change unless countries commit themselves to providing a package of incentives specifically for drylands to attract

²⁰ Schaffer, D. (Ed) [2001]: Dry diversity. *Third World Academy of Sciences Newsletter* 13(2): 18.

viable private-enterprise development.

40. **Human well-being** of drylands people is lower than that of people in other systems studied under the Millennium Assessment 2005. The drylands people have the highest infant mortality rates and their economic condition (as expressed by the per capita gross national product [GNP]) is the lowest. These factors will delay countries' delivery on MDG 1 and MDG 4 (Figure 2.6).

Figure 2.6 Comparison of infant mortality rates and GNP per capita across Millennium Assessment systems in Asia



Source: Center for

International Earth Science Information Network (CIESIN), 2004

2.4.3 Socio-cultural challenges

41. **High population** growth rates in drylands amidst the environmental challenges are leading to a situation where the carrying capacity of drylands is being overstretched. For example, Swift (2002) documents an increase in pastoral populations in Somalia compared to historical levels. Nomadic lifestyles of drylands populations have negative implications for the attainment of MDG 2 (achieving universal primary education) because the national enrolment rate for primary education is lower compared to other areas.
42. **Gender equality and empowerment** of women as required under MDG 3 cannot come easily in a harsh environment where women have to spend long hours searching for food, fodder, water and fuel wood etc; these factors also affect school attendance rates in girls.
43. **Conflict** as a result of competition over scarce water and fodder becomes rife, sometimes resulting in cross-border armed conflicts. The resultant insecurity causes disruption to development, undermining efforts to deliver on all MDGs.
44. Although **mobile pastoralism** is the most viable form of production and land use in most of the world's fragile drylands, it is increasingly under threat from legal, economic, social and political disincentives, as well as barriers to livestock mobility. State-of-the-art findings on the viability of pastoralism and its positive influence on drylands ecosystems are not being communicated effectively to decision makers; alternative policy options still need to be formulated. Key policy gaps include regulation of transhumance, production investment, mobile (or other appropriate) service delivery, conflict resolution, decentralization and democracy adapted to mobile populations, alternative and complementary income generation opportunities, and 'exit strategies' for some

pastoralists

45. **Policies of sedentary livelihoods** have been widely pursued in the past, with dire environmental consequences. Such policies were based on a profound misunderstanding of the logic behind pastoral production, favouring production systems imported from industrialized countries and supported inappropriately by the theory of the 'tragedy of the commons'. Movement was restricted by providing stationary settlements, replete with services and resources (especially water), ignoring the wider ecological necessity of mobility in this setting.
46. The imposition of sedentary life was resisted by herders who depended on mobility for grass and water for their animals. Services were not delivered nor maintained and pastoralists were accused of being anti-developmental. Eventually, the big pastoral livestock projects of the 1970s and early 1980s were halted as donors abandoned the sector, but not before large swathes of drylands were degraded as a result of the experiment. Simultaneously, the small but resource-rich buffer zones that enable pastoralism were expropriated and converted into irrigation schemes for settled agriculture or fenced off for wildlife and forest reserves. This combination of bad policy and resource loss has profoundly compromised pastoralism and drylands environments.
47. **Changing perceptions** of pastoralism have affected the strategies that countries put in place to address drylands issues. National policies in developing countries are changing with the new trends, although some still continue to design national development and fiscal policies that favour mostly high-potential ecosystems at the expense of drylands. The following quotation provides an example of the changing perceptions on pastoralists that is driving countries to adapt to new trends:

"We will take deliberate measures to improve the livestock sector. Our people must change from being nomadic cattle herders to being settled modern livestock keepers. We will take measures to improve pastures, veterinary care, cattle dips and auctions. It is the duty of all Regions, Districts and Local Authorities to set aside pastoral land, especially in those areas with much livestock."²¹
48. **Planning frameworks** designed by countries are now taking on long-term perspectives and funding mechanisms (e.g. Medium and Long Term Expenditure Framework). They cannot augur well for drylands areas where the natural shocks dictate that relatively shorter planning horizons and coping mechanisms must also be equally accepted.
49. **Donors' cooperation frameworks** that respond to the above skewed country priorities increase the marginalization of drylands. Some of them may provide for emergency humanitarian interventions, but ideally all the particular challenges of drylands development need to be faced as part of development that is typical to those areas.
50. In conclusion, the growing desire to reconcile the environmental, economic and social objectives of sustainable development is the cornerstone for mainstreaming. The guidelines consider sustainable development as both an outcome—"development that meets the needs of the present generation without compromising the ability of the future generations to meet their own needs"—and as a process: [Sustainable development is] "a process of change in which the utilization of resources, the directions of investment, the orientation of technological development and institutional change are in harmony and enhance both current and future potential human needs and aspirations" (World Commission on Environment and Development [WCED], 1987).

²¹ Speech by the President of the United Republic of Tanzania, his Excellency Jakaya Mrisho Kikwete, on inaugurating the forth phase parliament of the United Republic of Tanzania Dodoma 30th December 2005; In: Hesse and MacGregor, 2006.

3 Countries' understanding of mainstreaming

This chapter describes: (i) how countries construe the concept of mainstreaming environment; (ii) the factors that triggered mainstreaming as a practice in development planning; (iii) the rationale for mainstreaming environment (generally) and (iv) the case for affirmative action in mainstreaming drylands (specifically).

3.1 The meaning of the concept of mainstreaming

51. It is worth observing that countries did not provide operational definitions or interpretations of the concept of mainstreaming. This could fundamentally limit efforts not only in marketing the concept in planning processes but also in evaluating the effectiveness of mainstreaming processes. Countries should thus develop their own interpretation of mainstreaming to guide process.
52. Many countries' reports linked mainstreaming mainly to planning instruments (PRSPs, sector plans and strategies, provincial, district and community plans) and to the planning stage. This is a very narrow interpretation. However, according to Kazoora, 2007, if mainstreaming is to feed into planning and decision-making, it should be seen to permeate all types of planning frameworks that give rise to the implementation of ENR/drylands issues (e.g. policies, laws, by-laws, standards, institutions, technologies, curricula, funding mechanisms, plans, etc.) while at the same time permeating the different stages followed from the beginning to the end (conceptualization and identification, design, appraisal, budgeting, implementation, and monitoring and evaluation [M&E]).
53. Also lacking are tests to measure the effectiveness of mainstreaming. In the case of Rwanda, environment is mainstreamed when the Economic Development and Poverty Reduction Strategy (EDRPS) adequately reflects how environment affects the outcomes in other sectors and how actions in other sectors impact the environment. Examples of this are presented in the cross impact matrix (see Figure 3.1). However, this measure stops at the identification stage.

Figure 3.1 Cross-impact matrix based on Rwanda case studies

	Water	Energy	Education	Health
Water		Unsustainable use of Rugezi wetland has caused water shortage and consequently, energy scarcity.		Contaminated water increases healthcare costs.
Energy			Scarcity of firewood impacts on education, as children drop out of school in order to collect it.	High cost of fuel wood forces families to avoid boiling drinking water, thereby causing water-borne diseases.

Source: Rwanda Environment Management Authority (REMA), UNEP, and UNDP, 2007

3.2 Rationale and justification for mainstreaming

54. The growing desire to reconcile the economic, social and environmental objectives of sustainable development is the cornerstone for mainstreaming.
55. Changes to environmental services as part of a development process appear as 'invisible transactions' or externalities because they are not associated with a price in any recognized market. An example from Rwanda illustrates this in Box 3.1. Unless such externalities are internalized at source by the perpetrators, their costs are transferred to other segments of society, now and into the future.

Box 3.1 Example of an externality

The residents close to Rugezi wetland have been using it unsustainably. Downstream, this has caused a reduction of 50 percent in water levels, thereby reducing power generation capacity. The consequence of this externality is that the electricity bill has been hiked from Rwf 48 to 120 per unit of power consumed. In turn, deforestation increases as people shift to the use of charcoal, the price of which has doubled in recent years.

Source: Rwanda Environment Management Authority (REMA), UNEP and UNDP, 2007

56. Countries have increasingly adopted poverty reduction strategies (PRSs), with environment playing a key role in the livelihoods of the poorest communities and economic transformation. Thus, mainstreaming is justified to help countries take advantage of opportunities in the association between environment and poverty reduction.
57. Finally, mainstreaming protects human rights and promotes good governance. The rights of access to a means of subsistence (and security from hunger) are violated when land, water or other natural resources are highly degraded or polluted. A denial of the right to participate in the management of public affairs can also lead to degradation. The Constitution of the Federal Democratic Republic of Ethiopia (FDRE) for example, guarantees its citizens the right to sustainable development and the right to a clean and healthy environment (Federal Democratic Republic of Ethiopia, 2002). Uganda's constitution of 1995 has a similar clause.
58. A similar example from Argentina is given in Box 3.2. The main lesson learnt is that countries and development partners who pursue a rights-based approach to development also have a responsibility toward mainstreaming drylands.

Box 3.2 Environmental rights in Article 41 of the National Constitution of the Argentine Republic

"Every inhabitant enjoys the right to a healthy, balanced environment, suitable for human development and for productive activities to meet present needs without endangering future generations; they have the duty to preserve it. Environmental damage will generate the urgent duty to recompose, according to the provisions of the law. The authorities will monitor the protection of this right, the rational use of natural resources, the preservation of the natural and cultural heritage and biological diversity and environmental information and education. It is up to the Nation to pass laws containing the basic premises of protection and up to the Provinces to make all necessary laws to supplement the Nation's, as long as these do not alter local jurisdictions. The inflow of currently or potentially hazardous wastes into the national territory is hereby prohibited and radioactive wastes as well."

Source: Article 41 of National Constitution of the Argentine Republic

www.argentina.gov.ar/argentina/portal/documentos/constitucion_ingles.pdf

59. Mainstreaming environment in development activities may contribute to stability and peace. There is a clear link between environment and security and, more precisely, between the management of scarce or abundant natural resources and conflict. Furthermore, it is a legal requirement to mainstream environment based on countries' assent to Multilateral Environmental Agreements (MEAs) and existing national laws and regulations.
60. Currently, there is a held conviction that unless the environment—and drylands issues in particular—are well articulated in planning frameworks, they may not influence decisions relating to the mobilization and allocation of resources to address them. In turn, this could further exacerbate the social, economic and ecological consequences, including holding back the attainment of the MDGs.
61. Countries have already demonstrated weaknesses in this regard. For example, while Samoa considers environment as its most important economic asset, its current 2005–2007 sustainable development strategy does not reflect this (Law Consult, Ltd., 2007). Ghana did not link its NAP to the first PRSP, making implementation difficult due to financial constraints (Environmental Protection Agency, 2002). Up until now, ENRs have been excluded from conventional economic surveys of households, and thus their contribution to economic transformation has been estimated.
62. Drylands face unique challenges pertaining to their extremely variable climate, relatively low rainfall and consequently low primary productivity. Furthermore, the arid-adapted and resilient ecosystems and associated development challenges include comparatively low carrying capacities, long distances between urban centres and 'density' issues, all of which translate into constraints in infrastructure, service delivery and market development. In dry areas, there is little investment and a high rate of vulnerability to climatic shocks, and it is imperative for this vulnerability to be clearly addressed in mainstreaming programmes.
63. Natural shocks affect the implementation of drylands mainstreaming programmes. It affects the participation of drylands people in implementation, as they have to cope first with those shocks before attending to planning processes. Accordingly, a proper mix of emergency (contingency) and long-term development measures should typify the mainstreamed activities in drylands.
64. The lifestyles of drylands nomadic pastoralists have often been regarded as backward, primitive and delaying development. Governments have used these perceptions to argue that infrastructure development cannot be implemented economically. One missing link has been the issue of how to superimpose economic and social development programmes on nomadic lifestyles. Genuine mainstreaming must therefore take into account the 3 pillars of sustainable development²² in tandem. This constitutes substantive or holistic mainstreaming (see Box 3.3).

Box 3.3 Adopting an education system for drylands pastoralists

The Alternative Basic Education for Karamoja (ABEK) programme targets children in pastoral communities to bridge the gap between the formal public schools and the semi-nomadic pastoral lifestyle. ABEK schools are managed by committees that identify school locations, recruit and manage local teachers and work in

²² The Rio Conference of 1992 and the Commission on Sustainable Development (CSD) established the three pillars of sustainable development as: economic prosperity, environmental development and social development. These three pillars remain at the core of sustainable development today and represent a global consensus on the main elements of a sustainable development agenda.

partnership with the local district governments of Kotido and Moroto. The daily schedule is flexible, with schools either beginning in the early morning or late at night so that children do not miss household chores. Teachers use a revised primary school curriculum that includes indigenous knowledge and relevant life skills. ABEK is anchored in the Government of Uganda national education policy and is a collaborative effort between Save the Children/Norway, the Uganda Ministry of Education and Sports (MoES), United Nations International Children’s Emergency Fund (UNICEF) and the ABEK communities. In 2002, 23,262 children (13,637 of whom are girls) were enrolled at over 150 ABEK centres, and 1,427 ABEK students crossed over to the formal system. Even though the programme is yet to be replicated in other pastoral areas, it recognizes the social dimensions of communities living in drylands and would in the long run build the capacities of such communities.

Source: Balwanzi et al., 2006

65. Drylands have been shown to have many socio-cultural, economic and environmental values. They can support and transform their increasing populations. Their mainstreaming requires affirmative action because negative perceptions deny them opportunities for sustainable use of available resources. They should not be assumed under the broad dimension of ENRs. Drylands are still invisible, as demonstrated by a review of countries’ PRSPs on the World Bank website (see Table 3.1).

Table 3.1 Frequency of reporting on environment, natural resources and drylands in PRSPs of 11 countries

Country	Environment	Natural Resources	Drylands/Semi Arid/Drought
1. Benin	0	0	0
2. Bolivia	18	21	0
3. Burkina Faso	25	28	2
4. Ethiopia	15	12	47
5. Ghana	20	13	4
6. Kenya	4	3	18
7. Mali	8	19	6
8. Mozambique	21	27	4
9. Rwanda	17	2	5
10. Tanzania	36	25	6
11. Uganda	17	9	2
Total	181	159	94

Source: <http://go.worldbank.org/815EOPWMZ0>

66. Another rationale for drylands mainstreaming is that countries have confessed their own weaknesses in targeting the regions for development. Ethiopia’s Plan for Accelerated and Sustainable Development to End Poverty (PASDEP) recognizes that it has been difficult to reach some 10 million semi-nomadic people in the country who are concentrated mostly in the dry lowland areas,

subsisting primarily on grazing herds of cattle, camels and goats and the traditional services (see Tamrat, 2007, p. 19). In India, drylands farming was neglected even during the Green Revolution in late sixties. India has now made efforts to incorporate drylands issues in the development of appropriate farming practices.

67. The concern over global warming poses further challenges in drylands areas that are already vulnerable. By addressing land degradation in drylands, countries would also simultaneously address the problem of global climate change and biodiversity loss. It is gratifying to observe that Mozambique, Rwanda, Tanzania and Uganda are already benefitting from 'synergistic implementation of the Rio MEAs' with resources from GEF, Belgium and Norway through UNEP. These countries are starting to learn how to carry out some activities jointly to implement the MEAs cost-effectively. In the long run, this will contribute to the drawing of lessons for environmental governance globally.
68. On a positive note, evidence from China suggests that properly targeted interventions in drylands can produce surprising results (see Box 3.4). The lesson here is that while mainstreaming of drylands in other development frameworks must be pursued further, they need to be considered as a sector or sub-sector in their own right—a method countries have termed a 'dual-approach'.

Box 3.4 China reduces the scale of desertification

The Government of China has always attached great importance to combating desertification and recently has been paying more attention to this subject. Especially since the start of the 21st century, the government has incorporated ecological improvement into the overall strategy of the national economic and social development, with combating desertification as the main focus. Consequently, several significant actions have been taken, including promulgation and execution of the Law on Combating Desertification, and implementation of a series of integrated ecological improvement programmes. The pace of prevention and control of desertification is speeding up, with historic breakthroughs being made. Expansion of desertification and sandification has been slowed. The process of desertification has been reversed, from an average annual expansion of 10,400 km² in late 20th century to an average annual contraction of 7,585 km² during 1999–2004 (China National Committee for the Implementation of the UNCCD [CCICCD], 2006).

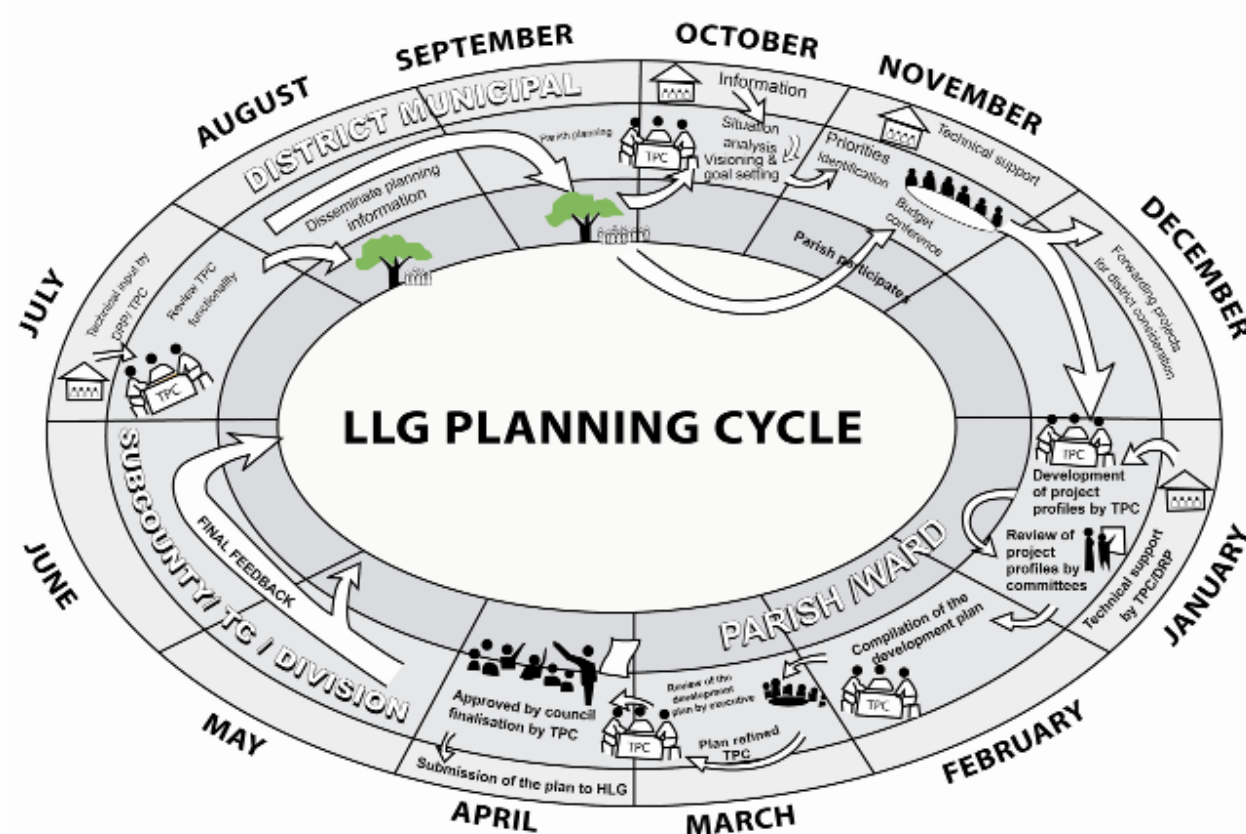
Source: Bo, 2007

4 Planning framework and institutional set-up for mainstreaming

This chapter explores the planning frameworks and institutions used in mainstreaming, with the aim of providing the perspective of decision-making centres that are being harnessed for purposes of drylands mainstreaming. It begins by documenting various decision-making strategies that countries employ to ensure sustainable development planning. The role of non-state actors in participatory planning is also documented.

69. Planning frameworks set out a collaborative, consistent and sustainable approach to planning. The Government of Uganda adopted decentralization as the main strategy for improving the delivery, accessibility and sustainability of public goods and services and for poverty eradication. One of the decentralized functions is development planning, starting from the lower local governments (LLGs). The planning schedule is prepared as per the local government planning cycle to allow the LLG to incorporate the plans of the parishes/wards into those of the districts/municipalities. Although the planning cycle covers the whole financial year, this does not imply that the LLGs need only be preoccupied with development planning; they must ensure that time is left for implementation, management, monitoring and execution of the routine sector-specific functions. Figure 4.0 provides the calendar for decentralized planning in Uganda, the steps involved in planning and the key centres of responsibility and decision-making. It is suggested that advocates for mainstreaming use such mapping to make good use of their time and other resources.

Figure 4.0 Planning cycle in local governments TPCs in Uganda



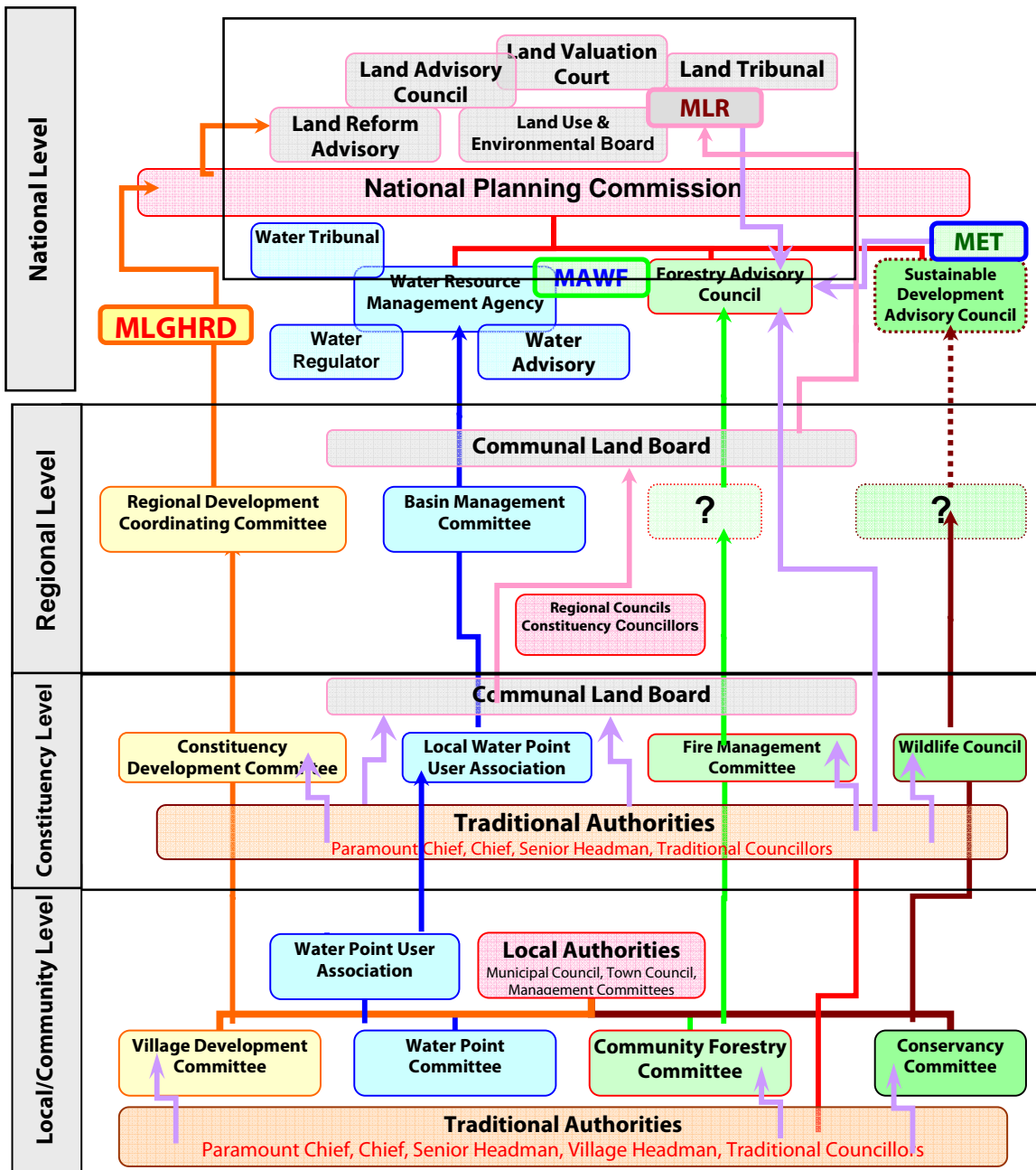
4.1 Institutional set-up for economic and environmental planning

70. Successful mainstreaming pre-supposes knowledge of planning and decision-making centres in a country. These provide the space for engagement. In many countries, key response measures for sustainable development have been the creation or reorganization of planning institutions and environmental management departments. Many countries have formed national planning commissions to guide development planning (e.g. Benin, Ghana, India, Mali and Namibia.). Those that have embraced decentralization policy influence planning through the relevant regional/provincial, districts, sub-districts, and/or parishes/yards, as the case may be. Notable examples include Burkina Faso, Ghana, Mali, Tunisia and Uganda. For example Ghana has a five-tier public administration. These decentralized structures have functions for planning, budgeting, resource mobilization, and M&E.
71. In many countries, parliament normally approves plans and budgets at national level. At lower levels, plans are approved by local political organs. Often, parliament will delegate certain issues to sectional committees—such as those focusing on ENRs—and on the national economy to study them in detail and make appropriate recommendations. The Committees may not necessarily relate to each other until their recommendations are brought to the plenary debate in parliament. In terms of parliamentary reporting, the national planning commissions do so through the Ministry of Finance and Economic Planning (in Ghana, Morocco, and Uganda), the Vice President’s Office (VPO) (in Tanzania) or the Prime Minister’s Office (in India).

72. There are certain trends that appear in countries' planning processes. First, they anchor poverty reduction strategies plans to the long-term vision for economic development and poverty alleviation. Second, they reflect national priorities in the PRSPs. The formulation of PRSPs is an ongoing process that stems from years of planning and builds on several general and sectoral plans and strategies formulated over the years. In addition, countries prepare long- and medium-term plans that include details of how the country will implement the PRSP. Mozambique, for example, has developed a national plan for implementation of the MDGs. Concurrently, others are developing sector-specific plans commonly known as sector-wide plans (SWAPs). These are attracting basket funding from donors and are likely to remain a future planning instrument for some time.
73. Parallel to the national development planning processes are the environmental planning processes. These are mainly spearheaded by apex national environment management authorities, most of which were formed following the National Environment Action Plan (NEAP) processes in early 1990s. Some countries, such as Mali and Barbados, formed national commissions for sustainable development.
74. At times, provincial and district environmental committees have been formed (in Kenya and Uganda) and environmental units created in ministries (in Benin, Burkina Faso, Ethiopia, and Mozambique). Alongside these structures, some government ministries house the focal points for the MEAs. Environmental planning is cascaded from national apex institutions to lower level structures, which sometimes do not hold the mandate for development planning. A general concern from countries is that although they have delegated environmental planning responsibility to local governments, central governments have neither transferred the commensurate financial resources nor built their capacity for the purpose.
75. Parallel to the above, there are other institutions in forestry, water, fisheries, wetlands and wildlife that have been established during recent reforms. New policies and laws have also come into existence, as well as the strategic plans needed to effect their implementation. Namibia listed over 52 such laws and policies. Countries do accept that laws per se are not a panacea to environmental problems and that these need to be implemented and enforced.
76. It can be stated that there are many planning institutions and structures concerned with environmental management. Countries are raising new concerns that there is a missing link in the micro-meso-macro hierarchy of planning. The intentions of governments are not being translated into actions at local levels. There are also no clear indicators for determining how benefits from such actions would be measured. It has also been observed that the institutional links—both horizontal and vertical—are still very weak and are often based on informal relationships. All of these barriers need to be identified and addressed.
77. In addition, few countries formed general ENR- and desertification-oriented institutions, such as the National Bureau to Combat Desertification in China, which also supervises the China National Society for Sand Control and Sand Industry, China National Training Centre on Combating Desertification and China National Research and Development Centre on Combating Desertification. Kenya formed the Drought Management Committees (DMCs) following the 1984 drought. Some of them are no longer operational. Argentina has an Institute of Research in Arid Zones, in addition to other research organizations. Ghana formed the Drylands Core Team and the Desertification Secretariat Team, which exist alongside environmental management committees. Generally, all these specialized institutions add to the multiplicity of institutions with an interest in ENRs.
78. Although most of the apex environmental institutions were given a coordination mandate, they have lacked the clout to invoke cooperation among other government agencies. Some are already being overburdened by work. For example in Bangladesh, the environmental impact assessment (EIA) clearance process dominates workload of the Department of Environment. In 2000–2001, it handled 1300 applications, a threefold increase since the enactment of the related law in 1995. In fact, it is requesting to have its capacity increased from 244 to 1600 employees. It is now emerging as an issue for debate whether the apex environmental agencies should start delegating responsibilities for environmental clearance to specialized sector agencies.

79. Another feature that has typified developmental and environmental planning is reliance on steering committees, task forces, working groups, etc. They generate information that can guide decision-making but that may not necessarily be taken up. The recognition to use traditional institutions in decision-making is described in Figure 4.1, which is adapted from Namibia's country case study, provides a reflection of the institutional complexity and the corresponding difficulty in influencing decisions concerning environment. It also implies that capacity building for drylands mainstreaming can be expensive, as it would have to target most of the decision-making centres.
80. In summary, while the United Nations Conference on Environment and Development (UNCED) was catalytic in causing environmental reforms in countries, it is coming to light that these need to re-assess and evaluate the institutional landscape for environmental governance. Specifically, the financial implications of sustaining them must be studied.

Figure 4.1 Institutional landscape for planning in Namibia



Source: Zeidler, 2006

4.2 The position of non-state actors in planning and decision-making

81. The category of non-state actors includes NGOs, the private sector, academic and research institutions, traditional and religious groups, farmers' groups, etc. Countries accept the roles played by NGOs in creating awareness, capacity building, implementing projects and/or programmes and possibly advocacy. For example, in Bangladesh NGOs and the media are commended for leading the successful campaign to ban two-stroke polluting engines, leaded fuel and the import of old vehicles, all of which were causing air pollution in Dhaka. In India, CAPART has introduced an innovative concept of support voluntary organizations (SVOs), which identify small community groups and

build their capacity to participate in watershed management projects.

82. One of the practices countries have adopted linked to the implementation of UNCCD-NAP is the establishment of UNCCD NGO/CBO networks. However, these networks lack programmes for their own capacity building and other support; hence it is doubtful whether they can function properly. Furthermore, in most cases, their capacity for advocacy is weak. In some countries, parallel networks are in conflict with each other for resources. In China, most societies and associations are approved by administrations. Their operating funds come from these administrations or government and it is difficult for them to act as real NGOs or to exercise their independence. The lesson is that unless NGOs have access to their own sources of funding, they may lack the independence to hold governments accountable for drylands mainstreaming.
83. Generally, most NGOs that work on environment and in particular drylands issues are described as relatively institutionally weak and poorly networked. Those that are making a breakthrough in providing a platform for the public to express their wishes and opinions need to engage more with government agencies to contribute to governmental policies. Capacity building for evidence-based advocacy should therefore be included in the NGO programmes.
84. Reporting on the role of the private sector in mainstreaming ENR (and drylands in particular) was very poor across countries. Mozambique mentioned private sector involvement through the Business Forum for Environment (FEMA). Morocco mentioned it has relied on the private sector for funding campaigns, advocacy for legislation, capacity building and for promoting networking among various actors.
85. Without giving examples, Tanzania accepted that it was less successful in engaging the private sector (from small to large enterprises) in environmental mainstreaming. It will be difficult to attract private investment and create incentives for innovation, technological development and behavioural change if the private sector is not strategically brought on board.
86. Academic and research institutions have been found to be pools of knowledge. Similarly, indigenous knowledge and beliefs of environmental management form an integral part of drylands development activities. Ghana, accordingly, uses two parallel systems: a modern system consisting of district assemblies and the traditional chieftaincy structure. For example, over 67 sacred groves are in place in three northern regions and are being reinforced by protecting flora and fauna through the use of taboos and local rules and regulations. Furthermore, traditional healers in the region are encouraged and assisted technically by the EPA to establish forest reserves as herbariums. Presently, 216 traditional healers have adopted the Agency's concept and idea of conservation. The reserves are between 10 and 600 acres. In Samoa, the Church plays a vital role.
87. While the communities' involvement is improving, not necessarily are all actually involved. Many countries feel they need to do more. Namibia, Tanzania and Uganda all underscored the importance of 'environmental champions' in raising the UNCCD flag, improving knowledge and awareness and inspiring political change. Such champions shaped an 'environmental manifesto' in Tanzania, which was used to lobby all political parties. It is possible that this manifesto may have influenced high-profile formation of the new and critical Department of Environment within the VPO and subsequent political discussions. Profiling of political environmental issues has certainly increased through Tanzania's third and fourth phases of government. Recently, a very significant change has been captured in the latest Republic of Tanzania political manifesto (2005), which builds on the Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania (MKUKUTA) policy of environmental action for poverty reduction (Assey et al, 2007).
88. Generally, countries do not regard themselves as having fully taken advantage of non-state actors. This is largely because the non-state actors are diverse and lack an institutional framework for coordination. The transaction costs of relating to them are also considered high.

4.3 The role and influence of donors and multilateral institutions in planning and decision-making

89. A number of donors have supported mainstreaming processes. Through their country

environmental analysis (CEA), they have assisted countries with the early incorporation of environmental considerations into national programmes. The World Bank, for example, uses the CEA as a key diagnostic tool to systematically evaluate the environmental priorities of development in client countries, the environmental implications of key policies and countries' capacity to address the identified priorities.

90. The GM of the UNCCD has established partnership frameworks for the formulation of NAPs and their mainstreaming in development frameworks in about 30 countries in Africa, Asia, the Caribbean and Latin America. Furthermore, it is now helping to leverage funds and provide technical support towards the implementation of NAPs.
91. Others have supported stand-alone projects and programmes with substantial funding. Notable examples include a \$4.5 million Environment and Sustainable Development Programme in Ethiopia (by UNDP and the World Bank) and Kenya's Arid and Semi-Arid Lands Programme (by the World Bank).
92. Since the adoption of the UN Convention to Combat Desertification, UNDP-DDC has supported 60 countries to formulate National and Sub-Regional Action Programmes to support the implementation of the Convention. The Integrated Drylands Development Programme (IDDP) builds upon achievements in the implementation of the Convention so far. Launched in 2002, the IDDP is currently being implemented in 19 countries in sub-Saharan African, the Arab States and West Asia.
93. Donors have also accepted to act as *chef de file*. The Canadian International Development Agency (CIDA) is the *chef de file* on behalf of Canada in Ghana, the Norwegian government is *chef de file* in Ethiopia and the Royal Embassy of Netherlands is *chef de file* in Burkina Faso.
94. The European Commission (EC) strategy for supporting environment and drylands mainstreaming among developing countries lies in its commitment to supporting drylands projects. The strategic guidelines and intervention priorities financed in 2002 and 2003 include:

*"Support the integration of National and Regional Desertification Action Programmes into key national development strategies such as Poverty Reduction Strategy Papers (PRSPs) including related capacity building."*²³
95. Further, the European Union (EU) commitment to drylands is reflected in its launch of a drought preparedness programme for the Great Horn of Africa. The main focus of the programme is to reduce drought impact by preparing communities to cope with recurring droughts and to increase access to safe drinking water for humans and livestock. The programme also focuses on improving animal health whilst supporting the institutional capacity to improve early warning and coordination. Considering this, it is important to target donors' cooperation frameworks for mainstreaming drylands.
96. Equally, Annex 11 shows that donors continue to be involved in ENR mainstreaming and capacity building and are providing support for programmes, such as market access to drylands-based products and setting up innovative environmental funding mechanisms. Their experiences could therefore inform knowledge management and transfer across countries.

²³ This was under Regulation (EC) No. 2493/2000 of the European Parliament and the Council on measures to promote environment in developing countries.

5 Practices and steps in the mainstreaming process

This chapter reviews the factors that triggered drylands mainstreaming among countries and the main steps followed.

5.1 Factors that triggered mainstreaming in countries

97. This chapter traces the origin of mainstreaming environment in development frameworks and the typical steps followed. Although there appear to be many steps, they are often carried out in parallel to recognize the iterative nature of planning. The history of taking up mainstreaming of drylands varies by country. In Barbados, mainstreaming is not new. It dates back to land use planning systems that emerged in the 1950s. To some, it is closely associated with the United Nations Sudano-Sahelian (UNSO)-supported activities (e.g. Ghana in 1987); to others, it is associated with the awareness created by the 1972 stakeholders' conference on human environment in Stockholm, the enactment of relevant laws (e.g. Soil Conservation and Land Planning Ordinance in 1953) and the 1970 Water Pollution Control Act (in Bangladesh).

98. Several countries, namely Ethiopia, India and China, mentioned shocks, as triggers to the mainstreaming process, particularly the famine, drought and floods of the mid-1980s. In Ethiopia, the 1984/85 famine compelled the government to launch a conservation strategy under the then Planning Ministry as the suitable entry point to integrate environmental concerns into the national development framework. The 1981–1983 droughts in Ghana compelled it to apply to the UN General Assembly in December of 1983 to be included in the list of countries that should benefit from UNSO assistance. Kenya formed the Drought Management Committee (DMC) following the 1984 drought. Samoa experienced widespread drought in 1990s, as did many Pacific Island countries. Burkina Faso also experienced drought, which affected the entire Sahel region in 1973. It was compelled to create the Ministry for Environment in 1976, which had the basic function of dealing with desertification issues. The countries' participation at the Rio Conference on Environment and Development in 1992 and specifically the adoption of Principle 4 of the Rio Declaration took mainstreaming to greater heights. The principle states:

"In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it."

99. Soon after Rio, many countries conducted the NEAP processes, some of which resulted in policy, legal and institutional reforms in the field of environment. The participatory manner in which NEAPs, subsequent policies and plans were made created a climate for reflection on environmental and drylands issues. At the same time, their development partners also adopted the principle of mainstreaming environment in their cooperation frameworks. In so doing, they directly influenced the countries they were supporting. For example in 1996, the World Bank affirmed the following:

"While advising countries to keep their NEAPs as permanent participatory processes and to integrate them into their overall development planning, the World Bank and other donors will also incorporate environmental concerns in their assistance strategies." (World Bank, 1996a)

100. However, as countries mainstreamed ENR issues generally in the planning frameworks, it was not until the UNDP supported NAPs to combat desertification that they focused on drylands issues specifically. According to Namibia report, the knowledge, awareness and capacities developed through the NAPs are today forthcoming and visible in development planning processes and have led to more 'integrated and cutting-edge' attitude towards mainstreaming. In Uganda, many guidelines for environmental mainstreaming exist, but those focused on drylands are directly attributed to the IDDP, which commenced in 2005. Overall, the highly participatory manner in which

planning frameworks are being conducted is becoming a strong platform that brings government, development partners, civil society organizations (CSOs), environmental activists, etc. to debate a wide range of issues, including those on environment generally.

5.2 Introducing a case of stepwise planning

101. Countries have found it easier and faster to participate in mainstreaming where the planning cycles or decision-making processes are well established and known. Many mentioned that they are engaged in different and sometimes parallel planning processes, for example at national, regional, district or local levels. Such a situation can overstretch capacities that are still weak. It also calls for the highest level of coordination. Table 5.1 shows the 15 procedural steps for mainstreaming ENR followed by local governments (districts and sub-counties) in Uganda. The lesson learnt from this is that the responsibility for mainstreaming is placed in the hands of the Technical Planning Committee, which, according to the 1997 Local Government Act, consists of technical heads of departments and others who were co-opted. The Technical Planning Committee has responsibility to coordinate and integrate all the sectoral plans of lower level local governments for presentation to the District Council. It is therefore a good practice that the responsibility for mainstreaming is placed among those with a mandate to plan and approve the plans.

Table 5.1 Procedural steps for mainstreaming ENR in Uganda

Mainstreaming step	Facilitator	Technical support
<i>Step 1:</i> Review technical planning committee (TPC) functionality on environment	CAO/Sub-county Chief/Town Clerk/Parish Chief	Environment and planning focal persons
<i>Step 2:</i> Disseminate mainstreaming guidelines	Environment and planning focal persons/Parish Chief	District Planner and District Environment Officer
<i>Step 3:</i> Situation analysis	Sector heads/TPC/PDC	Environment and planning focal persons
<i>Step 4:</i> Strengths, weaknesses, opportunities, threats (SWOT) analysis	Sector heads/TPC/PDC	District Planner and District Environment Officer
<i>Step 5:</i> Visioning and goal-setting	TPC/PDC	Environment and planning focal persons
<i>Step 6:</i> Identification of development priorities	TPC/PDC	Environment and planning focal persons
<i>Step 7:</i> Local government plan and budget conference	TPC	Environment and planning focal persons
<i>Step 8:</i> Development of project profiles	Sector heads/PDC	Environment and planning focal persons
<i>Step 9:</i> Review of project profiles by	Standing Committee	Environment and planning

standing committees	Chairperson/SIC/PDC	focal persons
Step 10: Compilation of the draft comprehensive development plan	TPC/PDC	Environment and planning focal persons
Step 11: Review of the draft comprehensive plan by the Executive	CAO/Sub-county Chief/Town Clerk/Parish Chief	
Step 12: Discussion and approval of the draft development plan	Council Speaker	CAO/Sub county Chief/Town Clerk
Step 13: Preparing the environment action plans (EAPs)	District Environment Officer/ Environment Focal Person	
Step 14: Implementation of plan and budget	Sector Headst	Chief Finance Officer
Step 15: Monitoring and evaluation	Sector Heads	District Planner and District Environment Officer

Source: Republic of Uganda, National Environment Management Authority (NEMA), 2004

102. Second, the process is guided by guidelines, and third, the team carries out situational analysis to gather information, which it eventually summarizes in a SWOT (strengths, weaknesses, opportunities, threats) framework. Priorities are selected, budgets are made and M&E take place. In fact, all local governments in Uganda are annually assessed for minimum planning conditions and performance measures, using among others, environmental criteria. Those that pass a certain mark (usually 70 percent) receive a 'bonus' of 20 percent, which is discretionary funding over and above the budget allocation from the central government. Those falling below 50 percent receive a penalty; that is, their budgets are correspondingly reduced by 20 percent. Tanzania has also adopted this approach of assessing its local governments annually. Governments would thus stand to benefit in the long run if mainstreaming of ENR is institutionalized in the systems of planning, budgeting, M&E; incentives that are built into the process will also ensure that marginalized aspects such as drylands also start to be placed on the development agenda.
103. Countries have learnt to pose appropriate questions that lead to discussions of the need to mainstream drylands issues. Box 5.1 illustrates this point.
104. There are multiple threads in the practice of mainstreaming environment into development. Similarly, planning and decision-making may not necessarily follow a linear model. In these circumstances one must look for 'windows of opportunity'. Therefore, the above steps may not necessarily follow that order but they are typical of a linear model of planning. Some steps may be carried out in parallel to take into account the iterative nature of planning.

5.3 Assessment of legal, political and institutional frameworks

105. The above assessment is important because it reminds the would-be stakeholders of the legal basis for their mainstreaming. Equally, it helps to identify those with mandates to spearhead the mainstreaming process, so that once the process is carried out, an institutional memory is left behind. It has not always been a common practice to have one type of institution leading the process, although the catalytic start-up activities on drylands can be traced to UNCCD focal points. Government departments, research institutions, NGOs and donors have all participated, albeit from varying positions of comparative advantage.
106. It is important to note, however, that countries have established apex environmental agencies with

mandates for coordination and monitoring, among others. Ideally, these would be helpful if the agencies were well facilitated and carried the necessary clout. Equally, they would need to closely liaise with the planning commissions or ministries that lead the planning processes. Bringing together these two categories of institutions, which have been given responsibility for environmental planning on one hand and development planning on the other, to harmonize their approaches will be the most rewarding investment for drylands mainstreaming. Presently, the apex environmental agencies have lost direction in coordinating other institutions because they have also taken on implementation responsibilities, a factor that has created a conflict of interest with other sector-specific institutions.

107. Owing to the above factors and to others, one observation is the existence of a wide range of institutional frameworks for mainstreaming environment, specifically in the context of PRSPs. For example in Tanzania, it is the Department of Environment in the Vice Presidents Office that led the mainstreaming process. In Uganda, it was ENR Working Group, coordinated by the Ministry of Water, Lands and Environment.

5.4 Defining roles, responsibilities and obligations for mainstreaming

108. In the short term, as countries explore how to put the mainstreaming of drylands on a correct footing, it is imperative that the diverse institutions define their roles, responsibilities and obligations in the process (see Box 5.1). It will help them to rationalize resources and to benefit from one another's comparative advantage.

Box 5.1 A formal memorandum of understanding guides drylands mainstreaming in Uganda

Funded by UNDP-DDC under the IDDP, the Ministry of Agriculture, Animal Industry and Fisheries, (MAAIF), the National Environment Management Authority (NEMA) and Sembabule District Local Government (SDLG) signed a memorandum of understanding (MoU) for the District Environment Action Plan (DEAP) process. The MoU identified and defined roles and responsibilities for each partner; the role of MAAIF was to provide the necessary tools (i.e. computers), procure technical assistance and provide funding for planned activities in accordance with government procedures. NEMA was to sensitize the local politicians and technical staff in the district and to draw the terms of reference (ToR), the basis of which was to secure technical assistance, prepare guidelines for drylands mainstreaming and develop a M&E framework for the DEAP. The role of SDLG was to form a District Task Force for the DEAP process, identify and train facilitators, conduct parish consultation workshops, develop the parish and sub-county EAPs, and to present these plans to the Sub-County and District Councils for approval and to cost them. A DEAP has been developed and is being used as a model to upscale to other districts in the drylands.

Source: Kazoora, 2007

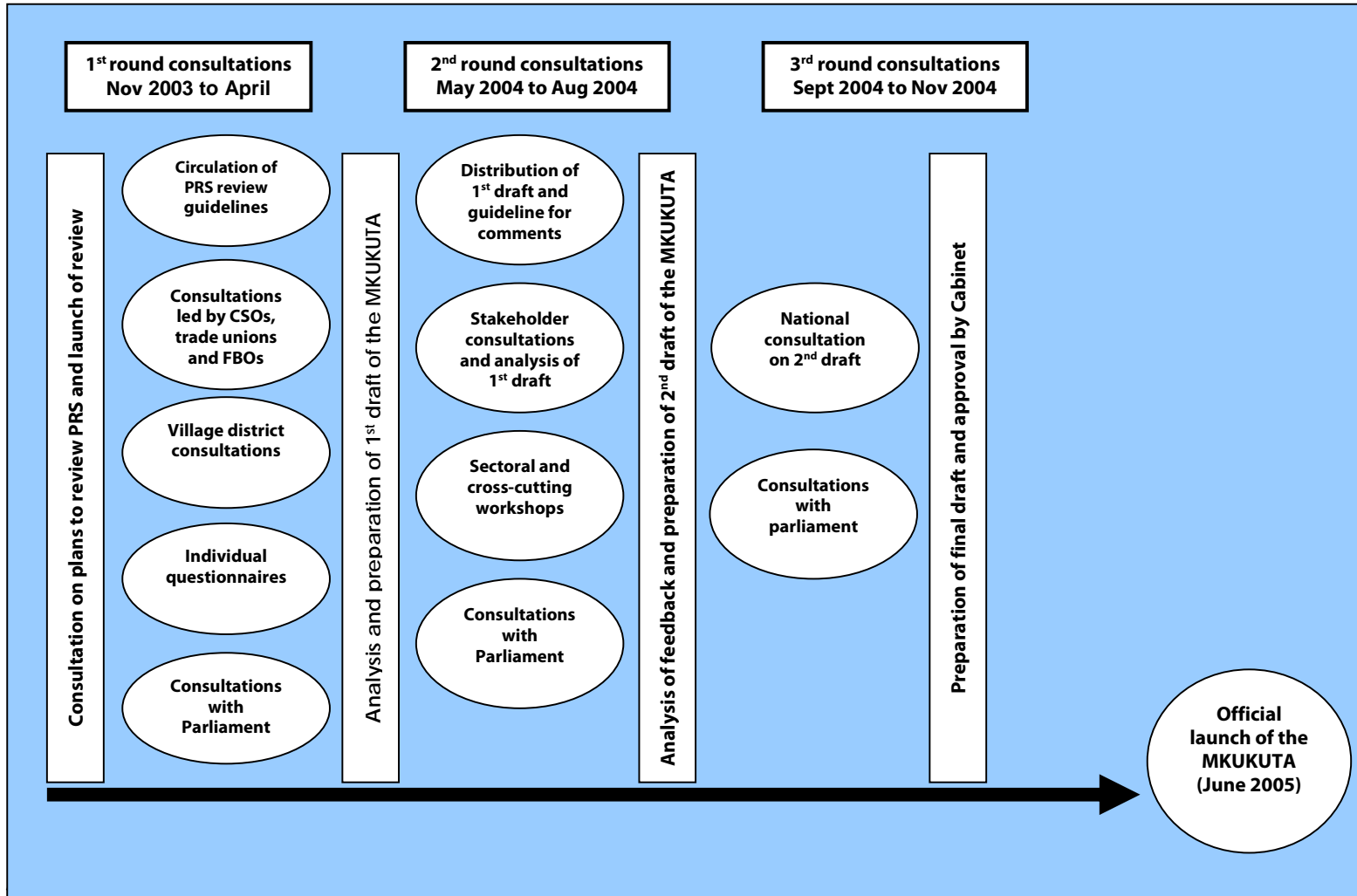
5.5 Public participation and consultation

109. The practice of participatory and consultative processes is growing, strengthened through national legislation. Consultative processes have been carried out using different approaches, mainly working groups, steering committees, conferences and workshops. Consultations have also been achieved either through carrying out environmental and social impact assessments, where public consultation

is mandatory, or through legislation that enforces the use of EIAs, which make participation integral.

110. Many lessons and experiences from public participation are emerging. Tanzania, for example, consulted more local authorities and community groups in 2005 than it did in 2000; it invested heavily during consultation for its MKUKUTA. Local government consultation process run by the Association of Local Authorities of Tanzania (ALAT) alone cost US \$400,000. The National Bureau of Statistics sent out 500,000 printed questionnaires, of which 25,000 were returned and analyzed. However, Tanzania did not find consultation as easy as was envisaged. It had started off on the premise that consultation should be performed by the constituency itself. But self-organized consultation did not always materialize; this resulted in a delay of two months. Accordingly, the MKUKUTA Secretariat decided to organize a sensitization workshop to stress the value of stakeholder participation. Figure 5.1 presents a well-thought-out framework for participation and consultation among many levels of decision-making during the formulation of MKUKUTA in Tanzania. This assisted in propelling the process forward. The key lesson is that, given limited resources, it pays to have forward planning for participation to achieve the purpose as well as to remain cost-effective.
111. Barbados reported the unique experience of using formal social partnership agreements since 1993 as a tripartite consultative and negotiating mechanism among the government, the private sector and labour unions for policy-making and economic development. The practice has been hailed as a model of best practice by the International Labour Organization (ILO). Social partnerships were introduced in Barbados in the late 1980s against a background of economic crisis; hence the resolve of partners to institutionalize the process.

Figure 5.1 Three rounds of consultations on the development of the MKUKUTA



112. Countries have also used the NGO/CBO networks in consultative processes. For example, Namibia underscores the importance of taking 'back to the people' the policies in which they have participated. It obeyed this principle in reference to The Communal Land Reform Act. Burkina Faso made the consumers of natural resources part of the team in NAP formulation.
113. Ethiopia raised the concern that its UNCCD-NAP process did not involve the main stakeholders, that is, the local communities inhabiting the drylands areas. Likewise, Namibia expressed that soliciting local inputs into participation remains a major challenge. The multiplicity of dialects and lack of resources further complicates consultation; for example, there are 36 such dialects in Namibia.
114. A case from Uganda shows that the seemingly less important segments in the mainstreaming process turned out to be some of the more important areas during implementation and enforcement:

"The police were left out during the process. But there was serious charcoal burning from the cut-down trees. When we called the police to intervene, they wanted to know which law to relate to for the offence before making a charge sheet."²⁴
115. Ethiopia asserted that the challenge of mainstreaming is how to "effectively institutionalize the participation process already initiated during the preparation of different plans". To attain that, it saw a dire need for a strong body that can play a catalytic and supporting role in creating an effective coordinating mechanism between the various government agencies, NGOs, local communities and international development partners.
116. The above examples illustrate one important lesson, namely that countries are not defensive of their weaknesses in mainstreaming processes. From their own perspective, there are aspects they feel need to be improved. It is through such a climate of open learning that ultimately the mainstreaming of drylands will penetrate critical decision-making areas. Accordingly, any support for transferring lessons of mainstreaming drylands among countries should be supported.

5.6 Communication and awareness raising

117. Communication and awareness raising have been instrumental in mobilizing all stakeholders in mainstreaming processes. Different channels have been used, notably mass media—especially newspapers, television and radio. Mass media also uses different formats, such as short features, news coverage, documentaries and discussions. India runs a special programme for farmers on TV and radio. It also introduced email groups and solution exchange networks with the help of UNDP. Tanzania is spending a lot of money to produce awareness materials in Swahili, the national language. The identity and branding of Tanzania's PRSP as MKUKUTA proved to be important in conferring widespread understanding and ownership. In China, compulsory tree planting has become an action of self-knowledge. The same is true of demonstration projects in many countries, village competitions (Samoa), awards for good practice (China), trade shows and exhibitions. Introduction of environmental issues in school curricula influences future generations; this has been institutionalized in China, India, Namibia and Uganda, to name a few.
118. In Namibia, the Ministry of Regional and Local Government and Housing and Rural Development (MRLGHRD) is currently pioneering the setting up of a 'Decentralization Communication Platform' with the aim of improving information sharing and availability. The intended Internet-based platform will better link the regional governance structures to the national structures and provide access to the public where information communication technology is available.
119. Mainstreaming was however, not easy at the beginning for many countries. Barbados described that communicating sustainable development concepts to the general population was challenging. In China, environmental management was considered a domain of government, and this delayed the

²⁴This relates to an experience of one agricultural officer in Sembabule district of Uganda. This highlights the importance of participation from all stakeholders.

participation of non-state actors. The diversity of culture and local dialects complicated awareness campaigns in Namibia and Argentina. Environmental management was perceived by many as a barrier rather than an opportunity to economic development.

120. Ghana strongly argues for a case of education and awareness to be extended to the traditional leaders, because they command a high level of respect and authority and can therefore play an important role in influencing communities around environmental issues. For instance, in the extreme interior savannah zone of the country, customary offices are occupied and comprised by two complementary traditional institutions, the *skin* (chiefship) and the *tindana*. The chief constitutes the political authority whereas the *tindana* historically has had more religious or spiritual functions. The *tindanas* play a stewardship role in land ownership and management in their respective communities. The authority to implement these rules implies the rights and the abilities to monitor the use of the resource and specify sanctions against those who violate existing rules.
121. In Samoa, the Church has roles in theological interpretation aimed at promoting the environment as an invaluable asset for both the present and the future:

"... Given its 'natural' affinity to questions of creation and life generally, the Church has always had a role to play in issues relating to the environment. Often man sees himself as the boss of the environment who can therefore do anything with it, thereby ignoring the concerns of others. The theological concept of creation should not be confined to man only. Instead it should be extended to other lives besides that of man. That is, the church should commit itself to the protection of biological diversity and the preservation of natural landscapes, which have sometimes been ruined to make way for the construction of new church projects..."²⁵

122. Bangladesh has advocated for information disclosure on polluting industries. That is to say, the Department of Environment should grade the industries according to their levels of pollution and publicly announce these rankings so that consumers can be aware of the most polluting ones. Indonesia, which adopted information disclosure under its Programme for Pollution Control, Evaluation and Rating (PROPER), has managed to control pollution by industry as industrialization increased.
123. The multiplicity of radio and television stations and the liberalization of the print media are increasing the transaction costs of targeting. As countries strive to use these multiple channels to educate and make people aware, they must recognize that there are costs associated with their use. Thus communication should be well thought out and targeted to the intended audience (see Box 5.2).

Box 5.2 A communication strategy in support of NAP

In support of UNCCD-NAP, Burkina Faso developed a communications strategy with the following objectives: (i) establish the most efficient system of information dissemination, (ii) facilitate awareness and full participation of the population and (iii) specify the technical context of the messages to be disseminated. It consisted of five steps, namely: (i) drawing lessons from past experiences, (ii) needs assessment, (iii) stimulating local participation and increasing responsibility for environmental management, (iv) sensitizing the population to the issues and putting in place mechanisms for consultation and partnership building and (v) launching the NAP by all stakeholders. However, despite such an elaborate communications strategy, the

²⁵ Samoa National Human Development Report, p. 41

NAP is considered an affair of the Ministry of Environment and as such solicits little participation of others in its implementation. Another gap is that the political rhetoric is not matched by financial resources for implementation. The lesson, therefore, is that failure at one stage (e.g. resource mobilization) can erode the gains made in earlier processes (e.g. awareness creation and communication).

Source: Hien, 2007

5.7 Commissioning target studies

124. One of the problems that have been highlighted is a lack of information and data in many countries. Knowledge generated from commissioned studies on ENR and drylands in particular has been valuable in shaping policies, investments, attitude and cooperation. Studies have focused on poverty-environment linkage, land degradation, environmental accounting and pastoralism in drylands (see Table 5.2). Increasingly, findings from studies are contributing to debates in the dynamic policy formal processes. Several countries that are participating on the UNDP-UNEP PEI have generated a lot of understanding on these linkages, which are now taking centre-stage in PRS processes and debates. The findings are now being shared on www.undp.org/pei/peppapers.html. Academic and research institutions also continue to be sources of relevant information. Geographical Information System technology is increasingly being used in scenario building by superimposing socio-economic data on environmental data. In Uganda, one such targeted study changed the government's prejudice towards the pastoralists, as reflected in the 2005–2008 PEAP:

"The majority of livestock-keepers do not hold animals in order to provide direct income but rather for other reasons, including investment of savings, social and cultural reasons. The current focus on maximising livestock production alone needs to be replaced by one that recognizes the multiple contributions that livestock make to livelihoods. Lack of such understanding is the reason why there has been only limited uptake of 'improved' livestock technologies, which have been largely inappropriate to meeting the needs of livestock keepers in general and pastoralists in particular."

125. As well, the government captured from the 'Voices of the Poor' through the PPAs that proliferation of small arms in predominantly drylands Karamoja was a source of insecurity. It accordingly set a programme for disarmament with two indicators addressing this issue, reflected in the PEAP as follows: (i) number of cattle-rustling incidents and (ii) number of small arms decommissioned. According to Moroto District Development Plan, the government had already recovered over 4000 guns by the end of 2004.

Table 5.2 Some studies undertaken or produced by countries in support of mainstreaming processes

Country	Title of study, Authors	Major findings	Application of the findings
Argentina	Ola Karlin U. [1998] <i>Traditional Knowledge and Technologies within the United Nations Convention to Combat Desertification: South America.</i>		
Burkina Faso	Food And Agriculture Organization [1987]: <i>The contribution of the forest sector to the economy of Burkina Faso</i>	Not stated	The studies underscored the need to reflect forest values in development plans
China	State Environment Protection Administration (SEPA) and National Bureau of Statistics [2006]: <i>China Green National Accounting Study</i>	Economic losses caused by environmental pollution is 511.8 billion yuan, accounting for 3.05% of national GDP	
Ghana	World Bank, UK Department for International Development (DFID) and Institute of Statistical, Social and Economic Research (ISSER) [2005]: <i>Economic and Sector Work: Natural Resources Management and Growth Sustainability</i>	The degradation of agricultural soils, forests, coastal fisheries, wildlife resources and Lake Volta's environment accounts for at least US \$475m annually or 5.5% of Ghana's annual GDP	The results of the study will inform the development of a comprehensive Strategic Investment Framework on Sustainable Land Management (SLM)
Morocco	World Bank [2003]: <i>An Assessment of the cost of Environmental Degradation</i>	The cost of degradation is much more present in the rural areas where the poor continue to depend on the natural resources for their subsistence needs.	
Namibia	Zeidler, J. [2006]: <i>Namibia: Land Management Practices and Environmental Sustainability. Contributions to an Analytical Framework for</i>		It made a contribution to Namibia's Country Pilot Partnership for Integrated

Country	Title of study, Authors	Major findings	Application of the findings
	<i>Responsible Growth. A contribution to Namibia's Country Pilot Partnership (CPP) for Integrated Land Management (SLM).</i>		Sustainable Land Management (CPP-SLM)
Rwanda	World Wildlife Fund (WWF) and PEI [2006]: <i>Environmental Sustainability in Rwanda's Economic Development and Poverty Eradication Strategies: Towards Mainstreaming Environment in the EDPRS</i>	Environmental resources will, for the foreseeable future, continue to support the welfare of the majority of poor Rwandese	It identified opportunities and entry points for environment in the EDPRS process
Uganda	Muhereza F. and Ossiya S.A. [2003]: <i>Pastoralism in Uganda. People, Environment and Livestock. Challenges for the PEAP.</i>	Nomadism is a rational use of scarce water and fodder resources in semi-arid and arid areas	It informed the PEAP revision and government changed its prejudice towards the pastoralists

5.8 Training and capacity building

126. Several approaches have been used in capacity building, some resulting in short-term impacts, while others are for long-term human capital development. Overall, training has generated great impact when it is linked to the drylands mainstreaming processes. This was found to be true in the Sembabule District of Uganda with UNDP support under IDDP; in Namibia, where the Danish International Development Agency (DANIDA) supported training during the preparation of National Development Plan 2 (NDP2); in Ethiopia where the Norwegian Agency for Development Cooperation supported capacity building for the implementation of CSE under EPA; and in Ghana where technical staff from district assemblies, NGOs and CBOs were trained for drylands mainstreaming with support from DANIDA and DDC.
127. China produced a manual on *Traditional Knowledge and Practical Techniques for Combating Desertification*, which was presented at the Conference of Parties (COP)2 and recognized by the international society. UNDP and UNEP awarded China the Best Practical Award in Combating Desertification. In Tanzania, South-South learning enriched the PRSP revision process through learning and exchange of experiences with other African countries with similar challenges. Tanzania built on its visit to Uganda where the ENR group was engaging the Poverty Eradication Action Plan (PEAP) revision to establish its own Environment Working Group. The Benin PSRP greening process was also enriched through a learning exchange with Ghana. This resulted in the adaptation of the SEA methodology as the main tool for the PRSP greening process. In terms of the process of capacity building itself, Tanzania reported that technical assistance for environmental mainstreaming is effective when it is demand-driven. It works best in areas where it is needed by national and local stakeholders and where it is timely. If this is supplied by external expertise, it needs to be time-bound and focused on using and building local capacities. In India and Kenya, NGOs have become important partners in training and public awareness on drylands.
128. Countries, however, have structural problems in sustaining their capacities. There is high turnover of trained personnel because of low remuneration. Sometimes, the tools and logistics needed to facilitate work are not available. HIV/AIDS is also taking its toll on labour.
129. Out of the recently concluded self-capacity assessments for the implementation of the three MEAs (Convention on Biological Diversity [CBD], United Nations Framework Convention on Climate Change [UNFCCC] and UNCCD), countries have prioritized capacity building in policy analysis, evaluation, advocacy and environmental mainstreaming. This will be a critical area for support because of countries' shift from project to policy framework for development; hence the urgent need to track the impacts of policy implementation.
130. From a long-term perspective, countries have introduced relevant curricula and have established specialized institutions to deliver them. Benin has integrated environment in the curriculum at all levels from primary up to university. There are at least 11 universities and colleges that offer courses on soil and water conservation and combating desertification in China. Namibia is proud to have been 'Namibianizing' school curricula and overall public awareness since the end of Apartheid. Kenya's 1988 Sessional Paper No. 6 title *Education and Manpower for Next Decade and Beyond* stipulates that environmental education should be part and parcel of education training curricula and should be taught at all levels of education (Republic of Kenya, Ministry of Environment, 1988). However, Kenya also argues that a curriculum alone is not enough. Educational institutions must offer appropriate training that promotes problem-solving techniques to environmental issues, critical thinking, creativity and positive attitudes in carrying out environmental projects. Uganda is about to approve a master's degree in drylands farming and utilization.

5.9 Integrative analysis of environment/drylands and poverty

131. The desire to reflect the linkage between environment and poverty in planning frameworks on one hand and the use of this linkage for advocacy on the other is increasing. The success so far is mainly attributed to commitment, capacity availability, financial and technical support and instructional

guidelines. It also requires knowledge of the processes that are going to be involved in order to plan how to engage them at the right time with the right technical input. Namibia demonstrates a good practice on this link: its NDP2 and the Green Plan processes are shown in Box 5.3.

5.10 Implementation

132. An 'implementation gap' is a common problem in many countries. Policies, laws and plans are thus not panacea for the identified problems. The gap is caused by poor capacities for implementation, which is not analyzed as part of the mainstreaming process. Experience to date in Africa and in the public sector shows that even with increased investment (this being one of the key motivations for mainstreaming) many countries do not have the absorptive capacity to deliver the resources, due to underlying capacity constraints. There is therefore a need to develop and strengthen national capacities to effectively absorb the anticipated increase in financial resources. This calls for diagnostic studies on capacity needs and assessment at the systems, organizational and individual levels.
133. Various factors have led to poor implementation of policies in many countries. For example Kenya has over the years made efforts to develop and implement policies to address its arid and semi-arid lands (ASALs) development. The first ASAL policy was formulated in 1979, inspired by the 1965 Sessional Paper No. 10 titled *African Socialism and its Application to Planning in Kenya 9* (Republic of Kenya, 1965). While the ASAL policy attempted to address some of the issues of concern in these areas, it fell short. One of the reasons for failure is that, historically, Kenya's ASALs have received low priority in terms of allocation of development resources. This was justified on economic grounds and the need to maximize productivity of the areas with known and proven potential. It was argued that if sufficient resources were put into the high-rainfall highlands, the production and growth in the economy from these areas would 'trickle down' to the ASALs. It is now recognized that this 'theory' is not practical. There is need to allocate resources to deal with direct problems in the arid and semi-arid areas, especially with regard to appropriate technology, human resource and institutional development, and the management of risks such as droughts and floods. Steps have since been taken from 2003 to revise the old ASAL policy. Hence a draft ASAL policy was completed in 2004 and was presented to the government by the Ministry of Special Programmes (Office of the President) in January 2005. The Ministry solicited and received inputs from all stakeholders and incorporated these into the document. The Permanent Secretary has now prepared a cabinet memo that is expected to go to the Cabinet for discussion and adoption. Once the Cabinet approves the ASAL policy, it will be converted into a sessional paper and will effectively become national policy.

Box 5.3 The Green Plan went mainstream: Linking to NDP2

In November 1999, MET National Planning Committees (NPCs) developed a vision on how to bring the Green Plan and the NDP2 processes closer together (below). The Directorate of Environmental Affairs (DEA) then played a key role in ensuring that the environmental aspects of sustainable development, as inspired by the Green Plan, were fully considered in NDP2. The process to mainstream was as follows:

<p>Phase 1: Environmental review of the Green Plan and NDP1</p>	
<p>Phase 2: Development of a shared sustainable development vision for NDP2</p>	<p>Eighteen sector issues and options papers were prepared to identify the key sustainable development and cross-cutting issues in each major sector. These issues and options papers were used as background material for a series of workshops. The main clusters were: a) Natural resources – agriculture, water, land, wildlife, tourism, fisheries and forestry; b) Social – health, education, labour and social services; c) Trade and industry – energy, industry, financial services, mining and trade; d) Infrastructure and institutions – communications, housing, regional administration and transport.</p> <p>An inter-cluster workshop was then held, bringing together all of the sectors to consolidate the identification of cross-cutting issues and to develop a sustainable development vision for Namibia.</p>
<p>Phase 3: Drafting of MET chapters for NDP2</p>	<p>Originally, the project envisaged technical assistance to the MET for the drafting of all four of its chapters for NDP2. The Directorates agreed that, with the exception of the cross-cutting chapter, they would draft their own contributions.</p>
<p>Phase 4: Assist DEA to screen draft NDP2 chapters</p>	<p>This phase of the project has consisted of technical assistance to the MET and NPCs in screening the draft chapters written by the line ministries. For this purpose, consultants were engaged to review the chapters using the cross-cutting issues and vision statements identified and developed in the earlier stages.</p>
<p>Phase 5: Assist the NPCs to consolidate the draft NDP2 with regard to</p>	<p>Assistance was given to the NPCs in consolidating the draft NDP2 with regard to sustainable development issues (ensuring that the work of the reviewers and the earlier phases is indeed incorporated). Support was given to dialogues/round tables/consultations on the draft NDP2 (focused discussions with key officials in the NPCs on specific issues and sectors). Identified and described capacity constraints to natural resources management according to the NDP2</p>

sustainable development priorities and targets	framework, and to outline possible remedial interventions through a consultative process.
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Source: Jones, 2001

5.11 Partnership building

134. All countries have had some form of partnerships established. China boasts of having cooperated with more than 70 countries and international agencies. Under the framework of Sino-African Cooperation Forum, it has conducted training for African countries on combating desertification. Some of the partnerships still exist through the national coordinating bodies and UNCCD-NGO networks for UNCCD. Partnerships with the private sector in Kenya are directly linked to the promotion of cleaner production technologies and best environmental practices through incentives such as tax rebates and duty waivers. With the growing culture of corporate social responsibility, private firms are coming forward to sponsor tree planting and environmental events. Namibia is promoting farmer-to-farmer training, that is, between commercial farmers and communal farmers. Samoa has a long and successful history of government-private sector and trade union-social partnership. The partnerships between NGOs and the media in Bangladesh have caused environmental reform in Dhaka. Uganda's mentioned partnership building for drylands mainstreaming took a formalized approach (see Box 5.1).
135. Generally speaking, the partnerships are many and will continue to grow in numbers. They will add value to the drylands mainstreaming processes if they (i) are framed around common problems, (ii) are moved from informal to formal status and (iii) include drylands-based institutions and key stakeholders (e.g. farmers' groups).

5.12 The role and involvement of ministries responsible for planning and finance

136. In many countries such as Ethiopia, Uganda and Rwanda, the ministries responsible for finance and economic development coordinate the overall planning, programming and annual capital budget allocation. They prepare the PRSPs and MDG programmes and sign financing cooperation frameworks with bilateral countries and other donors. Encouraging practices are emerging in most of the countries. Rwanda presents a case of how the Ministry for Finance and Economic Planning (MINECOFIN) mainstreams environment using eight steps (see Box 5.4).

Box 5.4 Steps of mainstreaming environment by MINECOFIN, Rwanda

- i. Choose the right *environmental* alternative
- ii. Explore a menu of options
- iii. Recognize what is not mainstreaming
- iv. Ensure targets and indicators are included
- v. Remember to include MDG 7 targets
- vi. Select one lead agency to implement
- vii. Ensure complementarity between sector proposals
- viii. Fine-tune for a two-way fit.

Source: Rwanda Environment Management Authority (REMA), UNEP, and UNDP, 2007

137. In Kenya, the overall coordination of the MDG process is carried out through a National Focal Point at the Ministry of Planning and National Development (MoPND). The Ministry is working jointly with the Ministry of Environment and Natural Resources (MoENR) to implement the PEI. In Samoa, the Ministry of Finance (MoF) is responsible for ensuring consistency between the sector plan and the 2005–2007 Sustainable Development Strategy. Unfortunately, it is reported that this strategy did not feature environment as a priority.
138. Many countries have called for studies to establish the contribution of ENR to: (i) livelihoods, (ii) economic transformation and (iii) revenue-generation potential. They hope that in so doing they will raise the profile of ENR and attract additional resources from the finance ministries. Only Tanzania was reported as having taken a bold step to review the adequacy of its funding to ENR, with the subsequent decision to increase it by more than five times (see Box 5.5).

Box 5.5 Public expenditure review informs decision to increase budget allocation for environment

Tanzania has adopted public expenditure reviews (PERs) to monitor value for money under budgeted performance. PER is comprehensive: it identifies multiple sources of revenue, including non-tax revenues, and now allows for an expanding agenda beyond priority sectors, which tend to have protected budgets. The government considers natural resources as one of its priority sectors. When the MoF failed to see key environmental values, expenditures or revenues in the early PER submissions at either the sector or macro level, it called for an inquiry on environment, energy and land within the PRS exercise.

The PER for the environment sector aimed to "establish levels, trends and distribution of expenditure by government; and the level required to meet the country's environmental priorities and poverty reduction objectives" (United Republic of Tanzania, 2004). The PER conducted by Nor Consult using figures for two financial years (2000–2002) turned out to be a critical turning point, highlighting:

- The considerable potential for environmental resources to contribute to revenue
- Significant under pricing, and very low revenue collection in e.g. fisheries and wildlife
- The low share of revenue going to districts
- The relatively low levels of investment and recurrent expenditure on environmental assets and improved revenue capture
- How some environmentally sensitive 'priority' sectors, in spite of identifying needs, spent nothing on environmental management
- The constraint to environmental integration posed by established government budget formats and codes.

Through the PER, the potential for investing in environmental management for poverty reduction has become clearer to MoF and to environment authorities. It also provided the basis for claiming an appropriate share of the national budget for environmental activities. The environment PER consequently proposed a significantly increased medium-term expenditure framework for the environment, emphasizing those sectors and local government authorities (LGAs) that deal with poverty-environment issues. The official

environment budget has now grown considerably: from Tsh 1,076,707,300 in 2005/06 to Tsh 5,675,971,000 in 2006/07. The Strategic Budget Allocation System now links public sector expenditure planning to the MKUKUTA in a way that both focuses on outcomes and clarifies different ministries', departments' and agencies' responsibilities. All of this has helped to take the MKUKUTA far out of the realms of planners' dreams and into real daily operations.

Source: Assey et al., 2007

5.13 Assessment of funding mechanisms

139. The interest to raise and direct enough resources to ENR cuts across many countries. In others, the concern is that they may have declined. For example, the International Monetary Fund (IMF) and the World Bank reduced balance of payment support to Kenya and suspended its aid in 1998. The suspension was later lifted in 2003, when the three-year Poverty Reduction and Growth Facility (PRGF) for Kenya was agreed upon in November of that year. In Tanzania, it was estimated that the government loses US\$1 billion annually due to degradation of forestry, fisheries and wildlife resources (Assey et al., 2007).
140. Many countries have adopted General Budget Support (GBS). The implications of this method for environmental funding are not fully studied. Although GBS improves country ownership and harmonization of donor programmes, certain preconditions need to be in place to derive its full potential. They include a robust policy framework with clear policy objectives and priorities, a well-functioning financial management system with sound rules and procedures, and transparent reporting and accountability mechanisms (IID et al., 2006).
141. Namibia reported that the recent GEF Resource Allocation Framework (RAF4) moves the country into a lower allocation band than in the previous RAF, indicating a de-emphasis from the GEF's heavy investment in the country (US\$36 million domestically plus \$100 million regionally). It considers that many donors have been pulling out since independence. Another source of uncertainty is the Paris Declaration on Aid Effectiveness. Donors may concentrate on just a few countries with which they can work more in-depth to highlight the need for ownership, alignment, harmonization and managing for results, as well as mutual accountability.
142. Namibia's sector wide plan did not pass the feasibility stage, a factor that threatens funding to the sector. In Burkina Faso, it was reported that the political rhetoric on environment is not matched with financial resources to the environment. In Uganda, the release of funds to local governments already earmarked for specific sectors implies that local level priorities in drylands management go unfunded.
143. However, just as challenges to environmental financing remain, there are cases to demonstrate that countries can raise resources beyond the traditional national budgeting frameworks such as the medium term expenditure framework (MTEF). Ghana is using the savings accruing from the highly indebted poor countries (HIPC) and channelling it to natural resource management and environmental restoration to secure the livelihoods of the poor who depend on the environment for goods and services. Some have established desertification funds (e.g. Kenya) or foundations (e.g. China Green Foundation), while others are contemplating these options (e.g. Ethiopia). China is using economic instruments (fiscal reforms) to promote investment in drylands. For example, it has introduced: (i) a 10-year tax-free policy for products from reversion of farmland to forest, (ii) subsidized loan policy for combating desertification and (iii) auctioned user rights of barren mountain, barren gully, barren flood plain and barren sand land. It has also introduced a forest law, which requires citizens between 11–60 years for men, and 11–55 years for women to plant 3–5 trees every year. Indeed, innovative market-based instrument can provide a mechanism for encouraging pro-poor investments in drylands areas, in partnership with the private sector.

144. It would also appear that China needs to address ‘perverse’ incentives. Ground water is still not priced at a level that enables recovery of depletion costs. Such distortions encourage the extension of irrigated areas into unsuitable environments, increased salinization and the support of an increasing livestock population because of the availability of fodder. Likewise, fees for lease contracts of communal land do not generally reflect the real value of land and therefore encourage high input-output forms of land use. Now that China has achieved food self-sufficiency, it has the opportunity to remove these perverse incentives.
145. Bolivia too has introduced economic incentives for the same purpose. Morocco is capitalizing its National Environment Fund through environmental taxation. Kenya has also put in place an elaborate funding mechanism that could make a significant impact in supplementing government and donor funding (see Table 5.3). Countries should thus study the opportunities for introducing such innovative funding mechanisms.

Table 5.3 NEMA Initiatives for environmental funding in Kenya

Fund	Purpose
1. The National Environment Trust Fund	Environmental Management Coordination Act (EMCA) (1999) created the National Environmental Trust Fund, which is funded by donations, endowments, grants and gifts. This fund is set aside to facilitate research, capacity building, environmental awards, environmental publications, scholarship and grants.
2. The National Environmental Restoration Fund	EMCA (1999) created the National Environment Restoration Fund, whose sources include proportion of fees, deposit bonds, donations and levies. The objective of the Fund is to act as supplementary insurance for mitigation of environmental degradation
3. Anti-Desertification Community Trust Fund	The fund was created with the support of the Global Mechanism to implement the NAP to Combat Desertification. The government has already provided some seed money.
4. Community Trust Fund for Biodiversity Conservation	The EU is sponsoring this fund for biodiversity conservation.
5. Poverty Reduction Fund	The fund has been established with assistance from some development partners to support environmental activities.
6. Fees and levies	These include EIA and audit registration fees, a license fee for both proponent and experts, inspection of the register and any other prescribed fees.

Source: Republic of Uganda, National Environment Management Authority (NEMA), 2003

5.14 Framework for monitoring and evaluation including reflection of indicators

146. Countries attach a lot of importance to monitoring and evaluating environmental performance based on a set of indicators. Barbados has developed indicators of sustainable development. It is one of the 22 countries that participated in the initiative led by United Nations Department of Economics and Social Affairs (UNDESA). A list of 170 indicators separated across the categories of human well-being, ecological welfare and sustainable interactions have been developed.
147. The Economic Commission for Latin America and the Caribbean (CEPAC) supported the UNCCD focal points of Argentina, Chile and Brazil to develop 'Indicators of Socio-economic Impact of Desertification and Land degradation'. In 2000, German Technical Cooperation (GTZ) broadened the support and more indicators on desertification for decision makers were developed. In 2001, some NGOs adopted the indicators for period monitoring. Uganda too has developed indicators; these are reflected in the PEAP, both the baseline and target indicators (see Table 5.4). The PEAP has also mainstreamed the MDG indicators, save for the 'MDG Plus' indicators on biodiversity, fisheries, access to renewable energy and chemicals that harm the environment.

Table 5.4 Illustration of Uganda's PEAP's use of 'baseline' and target indicators

Strategic objective	Outcome	Baseline 2002/2003	Target 2001/2008	Target 2013/2014
Increased and sustainable forestry production	- Percent of land under forest cover	24%	27%	30%
	- Distance travelled to collect firewood	0.73km	0.5km	<0.5km
Increased and more efficient agricultural production	- Percent of households with land titles for agricultural production	<1%	1.5%	3%
	- Percent of titled land	12%	17%	25%

Source: Ministry of Finance, Planning and Economic Development, 2004

148. Other countries are also working on developing indicators, based on their own internalization of sustainable development. For example, according to Bolivia, 'living well' is the cultural expression that condenses the form of understanding, the shared satisfaction of the human necessities beyond the environment of the material and economic because it includes affectivity, recognition and social prestige, contrary to the Western concept of 'well-being' that is limited to the access and accumulation of material goods. Others include Namibia, which is developing a sustainable development index and land management standard.
149. A few concerns were raised with regards to the reality of using indicators. In Kenya for example, many projects do not have log frames that would otherwise show them the baseline and target indicators and how they can be verified. Household budget surveys do not capture many indicators on environment. Some ENR strategies and guidelines for mainstreaming ENR also do not reflect them. Critically, most countries do not have institutionalized mechanisms to monitor and evaluate themselves on their commitment to environment. Kenya, which annually reviews IP-ERS based on

using two outcome indicators of: (i) increase in forest area (ha) protected by gazettement and (ii) proportion of public sector projects subjected to EIA, found it difficult to assess them. A big challenge for most countries therefore is to improve their accountability on environmental management by making annual reviews an institutional practice.

150. Finally, one would concur with the countries on their position that the acid test of mainstreaming is the economic, social and environment transformation of people. Using selected indicators, Table 5.5 shows that in some respects countries under the study have improved and have promise to do better while in others, additional effort is urgently required. The table is based on Annex 4a–4d.

Table 5.5 Trends in performance of countries using selected indicators*

Indicator	Periods of comparison	Number of countries showing improvement	Number of countries stagnating	Number of countries declining
Proportion of land area covered by forests (%)	1990–2000	4	2	15
Energy use (kg oil equivalent per \$1 GDP PPP)	1990–2000	12	0	2
CO ₂ emissions per capita (OPD metric tons)	1990–1999	0	8	11
Consumption of ozone-depleting chlorofluorocarbons (CFCs), (metric tons)	1990–2001	11	0	8
Urban population of households with sustainable access to an improved water source (%)	1990–2000	10	1	3
Rural population of households with sustainable access to an improved water source (%)	1990–2000	12	0	2
Urban population with access to improved sanitation (%)	1990–2000	9	2	3
Environmental Sustainability Index (ESI)	2002–2005	12	1	6
Adjusted net savings	1990–2001	10	1	7
Human Development Index	2001–2005	18	0	3
Population below the poverty line (%)	1990–2005	8	2	8

Source: Annex 4

***21 countries were studied, but for some data were not available to capture the trends (see Annexes 4a–4d)**

6 A review of tools used for mainstreaming drylands

This chapter describes the tools countries have used so far in mainstreaming environment in general, and drylands in particular, in planning frameworks. It also provides a list of factors that influence the country's or institution's choice of tool.

6.1 Tools that impose legal obligation and create an enabling environment to mainstream drylands

151. Most countries use a category of tools that impose legal obligations and those that create an enabling environment to mainstream drylands. Such tools include those that have been globally negotiated under the MEAs such as the UNCCD and those developed or agreed under national laws. To implement the UNCCD while mainstreaming drylands in planning processes, countries have used decision-making tools such as SEA or EIA.
152. From a practical angle, the people who should be targeted to mainstream drylands using the above tools include those who will be negotiating and re-negotiating the conventions at global level: parliamentarians who draft and pass country legislation, usually in the ministries responsible for justice and constitutional affairs. It also includes traditional leaders whose decisions influence the management of natural resources in their communities (e.g. Ghana, Namibia) and lower local governments that make by-laws. An example of a good practice of mainstreaming ENR concerns in a district ordinance for coffee, cotton and other produce is given in Box 6.1. It shows that institutions other than those mandated for ENR management could use their resources to address ENR issues at source.

Box 6.1 Good practices of mainstreaming environment in a commercial law

In 2002, Sironko District passed the Sironko District (Coffee, Cotton and Produce) Ordinance 2002. It provides for the production, processing and storage of coffee, cotton and dry produce; to streamline and improve the marketing of coffee and cotton in accordance with the Coffee Regulations of 1994 and Cotton Regulations of 1994 respectively; to provide for the assessment, liability and payment of cess on coffee and cotton; to produce licenses, loading fees and other connected matters.

As seen above, the ordinance is meant to promote and streamline production and marketing of crops. However, it has clauses that ensure that those involved in the production and marketing of the crops address environmental issues at the source. For example it states:

Section 6(6): The water used for washing fermented coffee shall not be disposed off in rivers, ponds, protected springs or other water bodies.

Section 13(3): Every cotton grower shall reasonably control pests and diseases.

Section 13 (4): Cotton plants shall be sprayed with chemicals recommended by the agriculture staff of the Cotton Development Organisation.

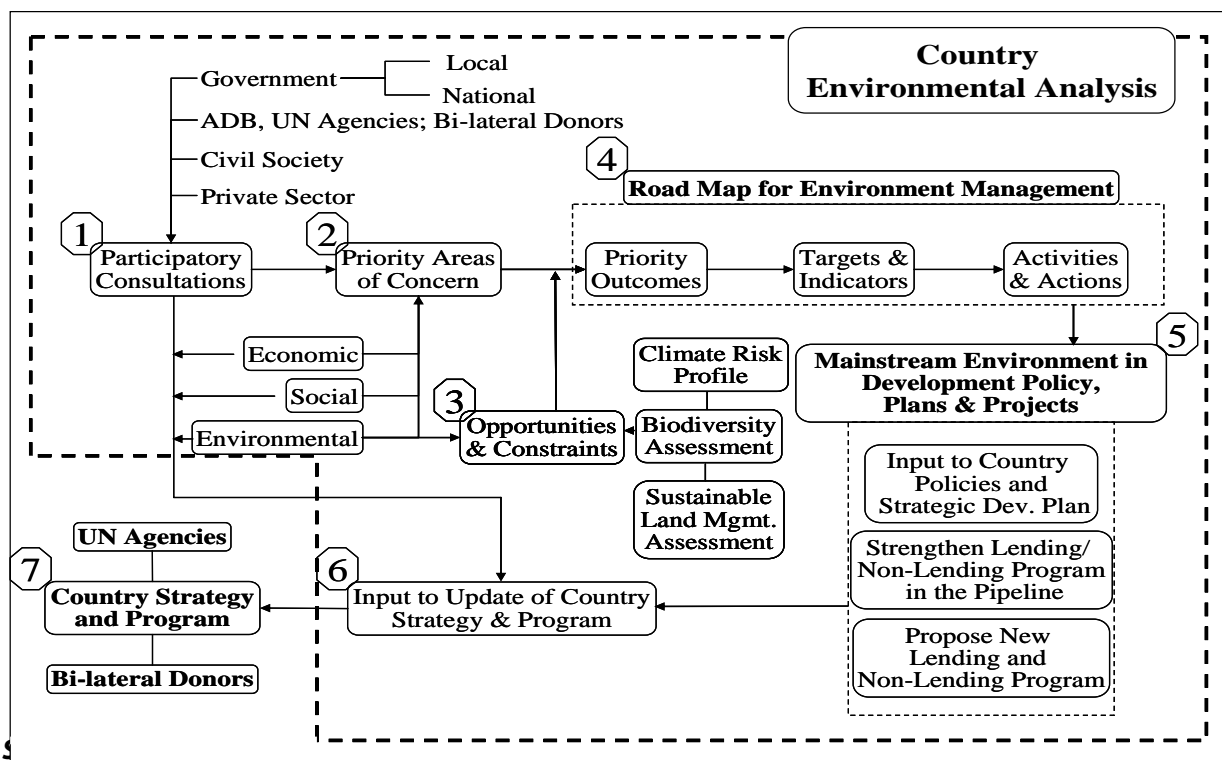
Source: Kazoora et al., 2004

6.2 Tools that form the basis of cooperation between countries and institutions.

153. According to the UNCCD: "The Parties shall implement their obligations under this Convention, individually or jointly, either through existing or prospective bilateral and multilateral arrangements or a combination thereof, as appropriate emphasizing the need to coordinate efforts and develop a coherent long-term strategy at all levels." (UNCCD, Part II General Provisions Article 4)²⁶
154. Industrialized countries periodically (i.e. every 3–5 years) sign cooperation frameworks with developing countries in which they re-confirm their commitment to ENR in general (and to drylands in particular) through financing, transfer of technology, support to research and capacity building, and support in the implementation of NAPs. Therefore, donors and the nationals who sign these cooperation frameworks hold the immediate responsibility to mainstream drylands in these frameworks.
155. Although only Uganda's report featured a case study with respect to the above, the evidence strongly suggests that cooperation frameworks are one of the fertile entry points for mainstreaming drylands, because they are agreed for several years and are instruments for the mobilization of financial resources and technical assistance.
156. Furthermore, bilateral governments and multi-national development agencies such as the World Bank, Asian Development Bank and African Development Bank carry out CEA as part of their programming. CEA is a flexible tool with three analytical building blocks: assessment of environmental trends and priorities; policy analysis; and assessment of institutional capacity for managing environmental resources and risks (World Bank, 2002). Figure 6.2 presents how CEA is used in Samoa as one of its main guidance tools.

²⁶ <http://www.unccd.int/convention/text/convention.php?annexNo=-2>

Figure 6.2 Process diagram for country environmental analysis (CEA) in Samoa: The Asian Development Bank (ADB) country environmental analysis 2006



6.3 Tools that inform decision-making processes by evaluating sustainable development aspects

157. The above category of tools is central to the mainstreaming process because they inform decisions related to opportunity cost and trade-offs among alternatives. Such decisions are perhaps the most difficult in environmental governance as they call for high capacity in their use and intensive participation and consultation. Some tools are obligated under MEAs and national legislations (e.g. EIAs), while others originate from the disciplines of their users (e.g. cost-benefit analysis by economists, social impact assessment by sociologists, ENR valuation by environmental/resource economists). Ghana, for instance has adopted the SEA as a tool for evaluating the environmental aspects of a policy, plan or programme and its alternatives. The findings of the evaluations are used to promote accountability and to influence decision-making.
158. It is important to note that some of these tools are not used independently of each other. For example, cost-benefit analysis and social impact analysis can be used as part of EIA. They provide guidance on whether the proposed policies or plans are economically, socially and environmentally feasible. Accordingly, they are best used at the appraisal stage, before going into full-blown implementation.
159. Multi-criteria analysis (MCA) is applicable in cases where a single-criterion tool, such as cost analysis, is used, whereby significant environmental and social impacts cannot be assigned quantitative values. In this case, MCA allows decision makers to include a full range of social, environmental, technical, economic and financial criteria, and to determine overall preferences among alternative options.

6.4 Tools that define procedures to mainstreaming

160. The above tools help their users integrate environmental issues into planning and decision-making processes by indicating the 'when', 'how' and 'who' of mainstreaming; that is, procedural mainstreaming. Box 6.2 provides an example of such tools.

Box 6.2 Examples of procedural tools reported by countries

- Guidelines on combating desertification and supervising their implementation—China
- Guidelines for effective management of the ENRs—Ethiopia
- Guidelines for a strategic environmental assessment of Ghana's poverty reduction strategy—Ghana
- Guidelines for mainstreaming environment into the development cooperation programmes—Namibia
- Guidelines for watershed development—India
- Guidelines for mainstreaming environment in EDPRSS, PEI, 2006—Rwanda
- Guidelines for mainstreaming drylands management issues into district development plans, 2006—Uganda

Source: National Country Reports, 2007

161. The study revealed that in some countries (e.g. Rwanda and Uganda) there were a significant number of guidelines—Uganda's report listed eight. They can therefore overwhelm the capacities of their users. A question that arises is whether several of a country's guidelines can be condensed into one tool for ENR, with sub-topics on different aspects, and one tool for drylands.

6.5 Tools that use the power of the market to influence investment and consumption

162. The above tools use the power of the market to signal costs or benefits associated with investment and consumption decisions. They build on the following UNCCD recommendations:

"Take appropriate measures to create domestic market conditions and incentives, fiscal or otherwise, conducive to the development, transfer, acquisition and adaptation of suitable technology, knowledge, know-how and practices, including measures to ensure adequate and effective protection of intellectual property rights." (UNCCD Article 18 [e])²⁷

163. One of the key objectives of mainstreaming programmes is to empower and build the capacities of communities to enable them take part in decision-making processes. Countries have made use of various tools for this purpose, for example local level participatory planning approach (LLPPA) in Ethiopia, forum for integrated resource management (FIRM)²⁸ in Namibia, local level monitoring framework (LLMF) in Namibia, vulnerability analysis and mapping (VAM)²⁹ in Ethiopia, drought proofing planning (DPP)³⁰ in India, and opportunities and obstacles to development (O&OD) in Tanzania, as illustrated below in Box 6.3. Capacity building serves to promote attitude change and to enhance knowledge and skills development. Countries have used exchange visits, training manuals, twinning, attachment of technical assistance and developing educational curricula on environment.

164. Many countries have expressed interest in complementing their command and control tools with

²⁷ <http://www.unccd.int/convention/text/convention.php?annexNo=-3>

²⁸ www.drfn.na/

²⁹ www.wfp.org/operations/vam/

³⁰ www.epconnet.com/index.html

incentives. They can learn from China, which presented a good practice in their use. In China the central government:

- Issued a favourable tax incentive, such as the 10-year tax-free policy for products that were produced from reversion of farmland to forest;
- Issued subsidized loan policy for combating desertification; and
- Introduced a policy of auction user rights to barren mountain, barren gully, barren flood plain and barren sand land. So far, about 23.33 million ha of the above 'four barren lands' now have clear developers, and a 6.5 billion yuan fund has been collected.

165. China invested in the understanding of how these market-based instruments (MBIs) could be used to combat desertification by undertaking studies to review financial mechanisms for environmental protection during the process of mainstreaming.

6.6 Tools to guide participation and consultation

166. Unless they are well-managed and targeted, participation and consultation can be very expensive. Most of these processes are traceable to the NEAP processes. Several tools have been used in this regard, including participatory poverty assessments (PPAs) used in countries such as Namibia and Tanzania.

167. The PPA is a tool that ensures the inclusion of the people's views in the analysis of poverty and in the design of strategies to reduce it. Tanzania made use of the PPA in the Shinyanga region to contribute towards the improvement of people's lives and to promote local action based on the views of the local people.

168. Participatory Rural Appraisal (PRA) is a tool that enables stakeholders to participate in a decision-making process by sharing and analysing their experiences, knowledge and views. Visualization is a critical aspect in PRA and this allows wide participation.

6.7 Tools that empower communities in decision-making

Box 6.3 Opportunities and obstacles to development (O&OD) in Tanzania

O&OD is a participatory community planning process that empowers the people on the basis of a bottom-up approach and positive thinking. Since its inception in 2002, the Government of Tanzania has rolled out the O&OD planning process in 81 of 121 LGAs. Accordingly, the role of the O&OD planning process has become increasingly important, since it is the only multi-sectoral, process-oriented planning methodology in use nationwide. It enables the community to prioritize their needs. The community plans prepared through the O&OD planning process could thus become a solid basis to realize effective fund flow to the community in the Local Government Capital Development Grant (LGCDG) system. However, harmonization of a fiscal transfer that is centred on the LGCDG system as well as mainstreaming planning processes into O&OD has only just started. The process respects the vertical hierarchy of approval of plans.

While the effectiveness of O&OD in participatory planning process is well recognized, some of its challenges have also been acknowledged in terms of the roll-out and the post roll-out processes. At the same time, numerous planning, budgeting and reporting mechanisms exist at a community level parallel to O&OD. The lesson learnt therefore is that unless countries rationalize planning processes, including choosing the tools

to use, a situation of 'planning fatigue' will emerge.

Source: Japan International Cooperation Agency (JICA), 2006

6.8 Tools that translate theory into practice

169. The above have been found to be the most powerful tools that (i) create confidence by breaking the social, cultural, economic, institutional and technological barriers to sustainable drylands management, (ii) enable communities to derive tangible benefits, (iii) inform upstream policy processes through advocacy, (iv) demonstrate the strengths of indigenous knowledge and (v) serve as platforms for education and awareness creation.
170. The tools take on many forms and examples, including: (i) demonstration (pilot) projects, (ii) exchange visits, (iii) market creation and integration (e.g. sheep rearing in Patagonia, Argentina), (iv) giving women secure resources for food self-sufficiency (e.g. Deccan Development Society in India) and (v) mitigating against drought through indigenous knowledge (e.g. Konso's indigenous terrace building and Gedeo agroforestry system in Ethiopia) (see Box 6.4).

Box 6.4 The power of indigenous knowledge to combat desertification

Konso District in Ethiopia (2,354.3 km²) is inhabited by 212,235 people and about 80 percent of it is terraced. The farmers are known for their own home grown/special terrace building, which is one of the best techniques for soil and water conservation. In addition, the Konsos are known for their crop diversification to minimize risk: mixed cropping and multi-story crop and tree production in traditional intensification. Over the past 50 years the methods have helped to mitigate against the vagaries of drought.

Gedeo zone, on the other hand, is only 1,347km² and inhabited by 773,514 people. All the people live in a home garden land use system, where slopes as steep as 80 degrees are under production. Plots are covered with multi-story vegetation, tree and root crops. *Ensete*, a high-yielding Ethiopian crop is grown. It yields over 5.6 tons/ha/year. It can be planted as fodder in good times and for human consumption during drought and good seasons, a factor that enhances food security.

Source: Tamrat, 2007

6.9 Tools that take an ecosystem and landscape approach to mainstreaming

171. Countries are gradually shifting from focusing on resources in isolation (e.g. forests, wetlands, fisheries, land, etc.) and are instead adopting ecosystems or landscape approaches. The PEI project in Rwanda has supported a number of capacity building efforts such as training in integrated ecosystem assessment (IEA). Pilot studies on IEA in Rwanda also found out that the population in Bugesera depends on the ecosystem both directly and indirectly for their livelihood and well-being. In Barbados, the National Park Development Plan identifies Natural Heritage Conservation Areas and National Forest Candidate Sites as part of an ecosystem approach towards the management of its national park.

172. In China, the People's Republic of China Global Environment Facility (PRC-GEF) strategic partnership financing will help it to transition to Integrated Ecosystem Management (IEM) by building on promising initiatives and addressing the constraints that limit the adoption of integrated approaches. IEM offers useful and pragmatic insights into optimizing ecological and social economic benefits, while maintaining and restoring ecosystem structure and functions. There is no doubt that ecosystem and landscape approaches are going to be valuable in the design of SLM programmes. Box 6.5 explains the institutional structures established in Argentina for mainstreaming drylands issues into national development strategies.

Box 6.5 Strategic Territorial Plan (PET) in Argentina

At present, there are a variety of strategic frameworks in Argentina that intend to incorporate the environmental dimension and the use of natural resources in public and private planning. The PET has been thought out as a permanent process of reflection and preparation of projects with environmental impact at national and provincial levels. Furthermore, PET may be considered the major national strategic framework that explicitly fosters environmental sustainability of the territory so as to guarantee current and future availability of natural resources. The PET promotes inclusion of environmental dimensions and vulnerability and risk variables as cross-sectional matters in all policies and public and private territorial activities at a federal, provincial and local level. It also encourages formulation of policies that protect the environment and landscape through the integrated management of natural resources.

Source: Panigatti, Tomasini and Dal Pont, 2007

6.10 Tools that promote accountability

173. Unless countries also invest in these tools, they will never come to learn whether the tools they used in their earlier stages of the project cycle have generated the desired impacts. These tools can be applied during M&E processes. The lessons derived from their use can inform upcoming revisions of planning frameworks. To benefit from their use, countries would need to institutionalize a mechanism of reviews periodically. For example, out of its Annual reviews of Investment Programme for Poverty Eradication Strategy (IR-ERS), Kenya established that it had difficulties in assessing the progress on two outcome indicators it had included. They are: (i) increase in forest area (hectares) protected by gazette, and (ii) proportion of public sector projects subjected to EIA.
174. Several tools mentioned by countries under this category include PPAs, environmental audits, PER or public expenditure tracking surveys (PETS), citizen report cards, community scorecards, LLMF, and legislation on access to information. They also include tools that promote corporate social responsibility, such as the use of ISO 14000 and public information disclosure.

6.11 Tools used to mobilize financial resources into drylands

175. The motivation for countries to mainstream drylands is to lobby for and attract additional resources for their management. There are many tools in that regard, with advantages and disadvantages. They fall into two broad categories: externally generated funds and internally generated funds. The former include Overseas Development Assistance (ODA), loans and grants from multilateral funding agencies, and specialized funding mechanisms (e.g. GEF). The latter include revenue generated from general taxation, environmental (desertification) funds capitalized by donations, and environmental levies, fees and taxes. Box 6.6 provides an example of how countries have leveraged national

financial resources for conservation activities.

Box 6.6 Fund for industrial pollution abatement

With the help of the German government, Morocco set up a €25 million fund for projects aimed at abating industrial pollution. This initiative became such a successful financial incentive that it motivated the Moroccan government to establish a National Environment Management Fund. This is a national diversified instrument that will cater to all environment-related sectors. It will be capitalized through environmental taxation, among other sources.

Subsequently, Morocco hopes that contributions from other partners will partly be channelled through this fund. The fund will also address the interests of CSOs along the lines of administration and enterprise projects related to the environment.

Source: Morocco Case Study Report, 2007

6.12 Tools that foster an institutional culture and philosophy for mainstreaming

176. Countries have raised concerns with regard to who 'starts', 'coordinates', or 'monitors' the mainstreaming processes and above all, who funds them. Increasingly, the above questions could be put to rest provided mainstreaming is accepted as a new culture and philosophy of doing business. Business as usual has not succeeded.
177. Examples that have been cited under the above category of tools include: establishment of apex environment agencies, agencies specialized in drylands and desertification, environmental liaison units in ministries and other structures at different levels of decentralized system.
178. These also include job specifications and descriptions of personnel, systems and tools that are used for their work (e.g. databases, geographic information system [GIS] and NRA). Of special mention, they also include the standards they follow in the procurement of goods and services and codes of environmental practice. These tools sometimes derive their strengths and obligation from the legal instruments establishing them or defining their use.

6.13 Tools for communication and awareness creation

179. Countries have relied on various tools for communicating and creating awareness of drylands issues, in both electronic and print media. Taking advantage of the commemoration of days such as the World Day to Combat Desertification, China prepares and disseminates a wide variety of messages through posters, seminars, workshops, print and electronic media.

6.14 Readiness of the country to appreciate and use findings

180. Ghana, Tanzania and Uganda have institutionalized PPAs to inform poverty reduction strategies. They have closed the public expenditure leakages because they have used and respected findings from PERs/PETS. The Tanzanian case (Box 5.6) also shows how the government increased environmental funding by five times after a PER. However, sometimes the findings from the use of tools remain unused (see Box 6.7).

Box 6.7 Results from natural resource accounting unused

The Ministry of Environment and Tourism / Directorate of Environmental Affairs (MET/DEA) in Tanzania conducted numerous studies using social accounting matrix (SAM) and natural resource accounting (NRA), through its Environmental Economics Unit, with international technical support. Some interesting case studies were undertaken and a relatively complete sector overview for water has been established through the NRA on water, which was updated once after its initialization in the mid-nineties. The publications that emanated from the various case studies are available on the web page of the MET/DEA, but they have not been widely applied and used.

Source: Assey et al., 2007

6.15.1 Educating the public on the context and importance of the tool

181. Societies can resist the use of the tools unless they are educated about them. This is because some of them increase the financial burden of compliance. In Samoa, certain hotel investors complained about the extra cost imposed to carry out EIA. In Bangladesh, the drive to generate foreign exchange is overshadowing the legal requirements to comply with environmental standards. The winners in the economy are the powerful group and the industrialists, while the losers are the weak, the poor, the farmers, the fishermen and the small-scale traders.

6.15.2 Institutionalization versus outsourcing

182. Countries can obligate certain institutions to institutionalize the use of tools. For example, statistical bureaus carry out the national censuses and household budget surveys. They have the mandate, capacity and funding to do so. However, for some tools, even government agencies can out-source consultants or NGOs to collect data, provided they value the type of information the tools produce. Sometimes initial capacity building among the external service providers may be necessary.

6.15.3 Assessing data needs

183. Some tools—particularly those that capture macro-level status (e.g. NRA, SAM) or those that have in-built scenario building (e.g. modelling)—require a lot of data. Hence a tool must be assessed before it is chosen, and practical steps must be taken first to fill the data gaps.

6.15.4 Assessing the capacities of the users

184. This is a fundamental consideration, because some tools can best be used by specialists (e.g. cost-benefit analysis by economists or financial analysts). With decentralization, capacities will differ at each tier, with low capacities at the lowest level. Only simple tools must therefore be applied at that level. A short-term measure is to secure technical assistance.

6.15.5 Objectives for the use of the tool

185. The objective dictates which tools to use: to plan, to monitor, to evaluate, to empower, to appraise, to predict, etc. Sometimes a tool can be used for multiple objectives (e.g. to both plan and empower).

7 Tactics for use in drylands mainstreaming

This chapter presents the tactics that countries and institutions have used to sway their governments to support of mainstreaming. They help them to improve the 'art' of mainstreaming.

186. The process of drylands mainstreaming should be viewed as a negotiation process that aims to create a win-win situation for the decision makers, development planners and drylands management practitioners. Often, countries encounter challenges in the mainstreaming processes even when they have successfully identified the technical and analytical issues, mainly due to inadequate preparation for the negotiation process. To overcome the above barrier, advocates of mainstreaming have applied different tactics in order to sway their governments to support drylands mainstreaming. The choice of a tactic depends on the reading of the country's specific climate. Following are some of the tactics countries have successfully used and from which others can learn.

7.1 Orienting to drylands issues prior to designing a planning framework.

187. In Kenya, the Pastoralists Thematic Group (PTG) in collaboration with the PRSP Secretariat organized two special visits to the arid northern part of Kenya for senior government and aid agency (IMF) officials. These special missions contributed immensely to the eventual appreciation of the concerns and issues affecting pastoral communities and the ASAL in general by technocrats in the treasury. Most of them, including the head of the PRSP Secretariat, had never visited the region. The result is that the technocrats who had initially shunned the integration of ASAL issues and the needs of pastoral communities became their most ardent advocates during the actual formulation of the PRSP.

188. In Tanzania, a South-South learning exchange enriched the process for its PRSP, which was branded 'MKUKUTA'. Its officials made a visit to Uganda to learn from the process of revising Uganda's PEAP and the role of the Environment and Natural Resources Group. Tanzania built on this experience in establishing its own environmental working group. Benin government officials visited Ghana, one of the first countries to make use of SEA as the tool for mainstreaming environmental and drylands development issues in all development programmes, including the Ghana Poverty Reduction Strategy (GPRS). Taking into account the lessons learnt from Ghana, Benin adopted the SEA and used it as the tool for the mainstreaming/'greening' of its second PRSP, the *Stratégie de Croissance et de Réduction de la Pauvreté* (SCRIP).

7.2 Capacity building on PRSP process and negotiation

189. It was emphasized that the understanding of drylands issues is a precondition to their successful mainstreaming. Related to the above, in Kenya organizations such as OXFAM-GB, Action Aid-Kenya and the African Charter of Human and Peoples Rights (ACRMP) sponsored members of the PTG under the PRSP process to attend a special course on PRSP processes at the Institute of Development Studies in the United Kingdom. The training gave the group much-needed confidence and the requisite knowledge to comprehend and deal with the technical and professional challenges of the PRSP formulation processes. Owing to the fact that PSG was hosted by the ACRMP, which is strategically located in the Office of the President, they obtained access to key policy-making organs within government.

190. In another case, Burkina Faso hired a team from Harvard University to train members of the ENR working groups on negotiations in preparation for their participation in PRSP process. Benin took the following steps in building capacity for mainstreaming: it included environment into the national constitution, articles 27, 28, 29, 74 and 95; it created the Benin Agency for Environment as the main structure for formulating environmental policies, the National Commission for Sustainable Development, as well as environmental departments in ministries as the main structures for

environmental mainstreaming in the different sectors. Additionally, it developed and strengthened capacities for evaluation processes and strategic environmental assessments; this includes providing training to the team leaders, group facilitators, directors of relevant ministerial departments and government officials working on sectoral policies of PRSP II. The PRSP teams were also trained in the negotiation process using the Harvard Methodology.

7.3 Providing evidence from studies

191. Countries can use evidence from commissioned studies in the process of designing a planning framework or from other previous studies to sway governments to support mainstreaming. In Uganda, an OXFAM-sponsored study on pastoralism resulted in the government adopting a friendlier attitude towards the pastoralists in its current PEAP.

7.4 Formation of pastoralist thematic or working groups

192. Both Uganda and Kenya benefitted from the formation of pastoralist thematic or working groups, supported by OXFAM in Uganda and by OXFAM, DFID in Kenya. The additional tactics the PTG used in Kenya have been described above.

7.5 Intense lobbying

193. In Tanzania, environmental champions formulated an 'environmental manifesto' in 1995 through which they lobbied all political parties. It is reported that this manifesto may have influenced the high-profile shaping of the new and critical Department of Environment within the VPO and subsequent political discussions (Assey et al., 2007). The political profile of environmental issues has certainly increased through Tanzania's third- and fourth-phase governments.³¹

7.6 Placing mainstreaming into an institution with clout

194. By its nature, mainstreaming brings into coordination many institutions. Countries have placed mainstreaming among institutions that command clout and high convening power. Tanzania's PRSP (MKUKUTA) process was centred in the VPO. Niger has established the National Council for Environment and Sustainable Development as part of the Cabinet of the Prime Minister to take responsibility for matters related to ENR management. The Permanent Secretary of the Cabinet chairs the council meetings. Benin took several steps towards mainstreaming, as noted above.

7.7 Using the power of the media

195. In Bangladesh, the NGOs brought the media to their side to publicize environmental degradation in the country. Through that partnership, the two were able to stimulate public interest and awareness, with the result that the emerging pressure caused the government to, among other things, ban two-stroke engines, leaded fuel and the import of old vehicles. In Tanzania, the media publicized the likely negative effects of the proposal to develop large-scale prawn farming in the Rufifi Delta in 1995, such that through the EIA process, the government could not allow the project to take off. In Uganda, the media, among other stakeholders, influenced the government's withdrawal from the proposed de-gazettement of Mabira Central Forest Reserve.

7.8 Positioning environmental champions in other working groups

196. Countries form several working or thematic groups that gather information to feed into planning frameworks. However, not all groups are equally oriented to environmental issues. A worthwhile tactic is to assign mainstreaming champions to each of those groups in addition to having a group

³¹ The first post-independence phase government was led by President Julius Nyerere; the second initiated reforms and was led by President Mwinyi. This was followed by the third-phase government of President Mkapa, and today's fourth-phase government of President Kiku, etc

focused solely on ENR. In Benin, during the formulation phase of different chapters of the PRS, an environmental expert was assigned to each of thematic groups to assist them in assessing the probable impacts and externalities of the proposed strategies and to identify the 'green options' that could be chosen to deal with these externalities.

7.9 Holding political leaders accountable for delivery on combating desertification

197. The Government of China has signed formal charters with provincial governors obligating them to meet minimum performance with respect to combating desertification. Those failing to do so would risk losing their seats. No doubt, such tactics require very high political commitment.

8 Lessons learnt, challenges and constraints

This chapter summarizes the key lessons learnt and the challenges that arose in drylands mainstreaming.

8.1 Lessons learnt

8.1.1 It is time to process and transfer knowledge.

198. Most countries have tried to deal with drylands issues in one way or another. It has clearly emerged that some are ahead of others in practices, methodologies and success stories. The following table provides a case that justifies investing in knowledge processing and transfer of drylands issues (see Table 8.1).

Table 8.1 Opportunities for knowledge management and transfer

Countries exploring practices and methodologies	Countries with established practices
(i) Kenya, Uganda and Tanzania are participating in a three-year initiative on “improving market access for drylands commodities”. Mali, for example, is interested in activities related to value addition for forest-based products.	Argentina improved sheep production and introduced better management, the success of which culminated in the formation of a company owned by farmers who sought eco-certification of their products for external markets.
(ii) Many countries wish to introduce incentives for drylands management.	China has successfully used MBIs to influence private sector and household investment in the drylands.
(iii) Countries intend to capitalize on indigenous knowledge in promoting sustainable development.	China produced a training manual on <i>Traditional Knowledge and Practical Techniques for Combating Desertification in China</i> , winning the Best Practical Award in Combating Desertification at COP2. Ethiopia employs indigenous knowledge in combating desertification (Box 6.5).
(iv) Countries have experienced difficulties in engaging in formal partnerships with the private sector due to the complexity of processes involved.	Barbados won an ILO award for its use of formal social partnership agreements among the government, the private sector and trade unions for policy formulation.
(v) Countries want to understand better the values of their environment, as well lowering the costs of degradation.	China has carried out Green National Accounting.
(vi) Ethiopia is in the process of establishing a	Kenya established several environment funds.

desertification fund.	Morocco established an environment management fund, capitalized by revenue from environmental taxation.
(vii) Countries want to lobby for additional resources for the environment to overcome their implementation gaps.	Tanzania carried out a PER, on the basis of which the ministry responsible for finance increased the budget to environment by five times (Box 5.5).

8.1.2 Donors have a special role to support drylands mainstreaming processes.

199. Donors have been found to be strategic partners in drylands mainstreaming for several reasons. In most cases, they have been appointed *chefs de file* for promoting UNCCD implementation in countries.

8.1.3 Drylands mainstreaming needs affirmative action.

200. There are many reasons why drylands mainstreaming should receive affirmative action. It was highlighted that the tendency to regard drylands as wastelands and the lack of understanding of pastoralism as a way of life hampers efforts towards mainstreaming. In most cases, drylands issues have tended to be subsumed under ENR, with a consequence that their reflection in PRSPs remains minimal (see Table 3.1). For instance, some past programmes have been unsuccessful because of failure to understand the complex socio-economic and ecological setting of drylands populations. The implications are that the high levels of poverty and poor social indicators for drylands communities will hold countries back from attaining the MDGs.
201. With high population growth rates in drylands, countries, development partners and the private sector can no longer wait to mainstream drylands. As well, it is profitable to do so because of opportunities for livestock products, tourism, carbon sequestration and minerals, among others. In fact, if complete value chain analyses were made of drylands products and services, the significant contribution of drylands to economic transformation and global integration would be evident.

8.1.4 Mainstreaming is inherently expensive and time demanding.

202. Many factors make mainstreaming expensive. First, it permeates many planning frameworks, including policies, laws, PRSPs, sector-wide plans, local government plans, technologies, curricula, programmes and projects. Second, it permeates different phases of these frameworks, including conceptualization, planning and design, appraisal, budgeting, implementation and M&E. Third, some of the above planning frameworks take a long time to be completed. It took Barbados six years to complete its National Sustainable Development Strategy (from 1996 to 2002). Namibia spent seven years to complete its National Poverty Reduction Strategy (NPRS)/Action Programme (from 1998 to 2005).
203. This implies that it will be worthwhile for countries to earmark budgets in support of mainstreaming processes. In this way, the momentum will be maintained by task forces, working groups, champions, etc. Only Ghana reported setting aside a budget line during the formulation of its second PRSP for using SEA as a tool to mainstream environment in general.

8.1.5 Capacity building for drylands mainstreaming will be expensive in the short- to medium term.

204. Owing to the multiplicity of development planning and environmental management structures at different levels—central, provincial, district, sub-district, yard/community—the costs of capacity building for drylands mainstreaming are high. This is because many categories of people must be targeted if mainstreaming is to be embraced as an institutional culture. They include policy makers, planners, environmental specialists, finance and accounting officers, local leaders, NGOs and the media.

8.1.6 Countries must go beyond reflecting drylands in planning frameworks.

205. For a decade, countries have improved their reflection of environment in PRSPs due to training, awareness, and support given by donors. They face the challenge of ensuring congruence across all plans, both vertically and horizontally. But as they overcome these challenges it has become evident that (i) more attention needs to be given to actual funding of drylands programmes, (ii) appropriate use of funding must be tracked and (iii) periodic reviews are needed to establish whether the well-being of drylands communities is improving.

8.1.7 Commissioned studies are helping to overcome knowledge gaps.

206. Through commissioned studies, governments now understand better the link between poverty and environment; the sociocultural, economic and environmental setting of drylands populations; mechanisms to increase funding for drylands and to integrate communities into markets. Additional studies will go a long way to overcome the barriers to investments in drylands.

207. Following an OXFAM-funded study in support of PEAP revision, the Government of Uganda is starting to change its prejudice towards pastoralists (Muhereza and Ossiya, 2003). This is reflected in the current 2004–2008 PEAP which states:

“The majority of livestock-keepers do not hold animals in order to provide direct income but rather, for other reasons, including investment of savings, social and cultural reasons. The current focus on maximizing livestock production alone needs to be replaced by one that recognizes the multiple contributions that livestock make to livelihood. Lack of such understanding is the reason why there has been only limited uptake of ‘improved’ livestock technologies, which have been largely inappropriate to meeting the needs of livestock keepers in general and pastoralists in particular.” (Ministry of Finance, Planning, and Economic Development [MFPED], 2004, p. 55)

8.1.8 It pays to identify and use champions in mainstreaming.

208. Countries have benefited greatly from a cadre of champions for mainstreaming ENR. These champions may be individuals or institutions and are driven by interest, not necessarily knowledge. Since it is not a guarantee that people trained in mainstreaming will participate in these processes, investing in this cadre can result in greater benefits.

8.1.9 Guidelines have helped countries to advance in ENR mainstreaming.

209. Guidelines have been used as tools for mainstreaming on one hand, and for capacity building on the other. They should be continued and streamlined further.

8.1.10 Community-driven (demonstration) projects matter in the long-term.

210. Demonstration projects move the theory into practice and leave behind tangible benefits to the demonstration communities. They should be integral in every mainstreaming process, because they have the benefit of informing upstream policy formulation. They also build on indigenous knowledge (see Box 6.4).

8.1.11 The private sector and households can invest in drylands if incentives are correct.

211. The lessons from China and Morocco demonstrate that if incentives are planned for and put in place, they have the power to motivate the private sector and households to invest in drylands management. In turn, this relieves pressure on the government to fund environment using the traditional allocation systems. However, incentives must be monitored periodically so that they do not become pervasive.

8.1.13 Independent watchdogs are necessary if mainstreaming is to be sustained.

212. Governments, which have the responsibility to deliver services, may not take action unless there are independent watchdogs to hold them accountable to people’s rights. In Tanzania, the CSOs presented an environmental manifesto at the start of their PRSP (MKUKUTA) process. It attracted so

much political attention that the environmental mainstreaming was taken over by the VPO. In Bangladesh, the NGOs and media ran a campaign to improve air quality in Dhaka that led to the government banning high polluting two-stroke engines, leaded fuel and the importation of old vehicles and polythene bags.

213. Environmental conservation is a right for all citizens, and linkages between environmental protection and human rights have long been recognized. Most of the CSOs that promote conservation as a human rights issue should receive special support over the long term, in order to empower communities to consider the environment as part of their rights, as well.

8.1.14 Mainstreaming processes need to be critically evaluated.

214. In recent years, countries have treated many of the issues to be mainstreamed as cross-cutting, including gender, HIV/AIDS, human rights, governance and population growth in addition to environmental issues. Given that these are not the primary sectors that draw resources, they stand a risk of being forgotten in budgeting and may only be reflected to show procedural compliance. Many countries were found to be weak at evaluating the effectiveness of environmental mainstreaming. They need to address this shortcoming.

8.2 Challenges and constraints in mainstreaming

8.2.1 Conceptual challenges

215. Countries have articulated their own interpretation of mainstreaming. Their attention to environmental issues tends to be biased towards identifying and mitigating adverse environmental impacts of plans and projects, rather than identifying positive impacts and opportunities from the use of environment. This is because development agencies tended to concentrate on ensuring compliance with 'safeguard' policies, which focus on averting harm to the environment. The safeguard approach focuses on compliance with a given set of substantive and procedural standards (Seymour and Maurer, 2004).³²
216. By contrast, mainstreaming requires a conceptual shift that identifies environmental sustainability as an objective of the development process, rather than focusing on compliance with environmental standards as secondary to the achievement of other objectives. It thus requires a focus on proactive investment in policies and projects that promote integration of environmental sustainability into development strategies themselves, rather than as an 'add-on' component to policies or projects conceptualized without reference.

8.2.2 Negative attitudes and political marginalization of drylands

217. There is generally a lack of political will to deal with problems in the drylands, which have for a long time been considered barren lands inhabited by some of the world's poorest people. While it is true that eight of the world's ten most impoverished nations are located in arid or semi-arid regions, it is also true that the people who live in such areas display resilience and creativity that has often been ignored by government officials and international aid agencies. Viewed as marginal lands inhabited by marginal people, policies and programmes were sometimes put in place that failed to take into account centuries of local experience and accumulated knowledge in dealing with these harsh environments.
218. There are many examples of countries that have failed to understand the sociocultural, economic and environmental setting of drylands, and planning processes have not consulted to a significant extent drylands communities. For example, China's top-down application of 'engineering' solutions ('ecological construction') to deal with land degradation has not involved extensive participation of the affected populations.
219. Many preconceptions are held by decision makers in Africa and elsewhere of pastoralists and their

³² <http://www.bid.org.uy/sds/doc/FSeymor.pdf>

way of life. The overriding perception is negative. Pastoralism is often considered an inefficient use of land that does not contribute to national growth, poverty reduction or sustainable environmental management.

8.2.3 Conflict

220. Conflict in the drylands zones and civil unrest constitute another challenge that leads to food insecurity. Owing to the severe conditions, few people are willing to work in drylands. The use of guns to protect livestock complicates the problem.

8.2.4 Lack of technical and administrative staff

221. Another constraint to drylands development is the lack of technical and administrative staff to bring about change. This is also exacerbated by poor reward systems, tough living conditions and poor career prospects. Some major agencies have noted the existence of a wider and deeper malaise in public administration than simply a shortage of trained staff, namely the ineffectiveness of institutions and staff due to imprecise mandates, counter-productive staffing procedures and inadequate guidance, facilities and motivation. The problem is magnified in drylands insofar as postings in these areas are often regarded as punishment. This results in poor administration and inadequate analytical capacity to provide updated and adequate information on conflicts and food security status at various localities and at all times.

8.2.5 Environmental challenges

222. Drylands are perceived to be degrading or degraded environments. One view states that the degradation is a result of mismanagement of, and increased pressure on, natural resources caused by population growth. This growth has allegedly resulted in overgrazing, over-cultivation, over-cutting of woodlands and deforestation, which have consequently led to environmental degradation and desertification. There has been a misconception that indigenous management practices have been often destructive and that reducing the human population can alleviate the problem. Perceiving problems in this way often led to misconceived efforts.
223. Recurrent droughts are a permanent fact of life throughout the drylands and pose a major challenge to any development initiative. The drought may range from mild to severe to extreme. During this period, drylands may experience limited water for only short periods or a major devastation of the crops, livestock and humans. Severe droughts affect agricultural production and can cause acute malnutrition and death.
224. Drylands are subject to considerable natural variability and growing socio-economic pressures, which pose a major challenge for the proper management of natural resources. The main predicament facing drylands people is that of unpredictability and insecurity. Long-term planning is often impossible in such an environment of fluctuating conditions. Accordingly, short-term coping mechanisms must be built into long-term SLM programmes.

8.2.6 Institutional challenges

225. In pursuit of putting environmental sustainability on the development agenda in the post Rio era, countries established commissions for sustainable development and environment management or protection agencies. In some cases, countries have gone to great lengths to establish environmental management structures in their local governments, as well as environmental liaison units in line with ministries. These structures came at a time when either the governments were already mandating institutions for development planning in general or were contemplating delegating that function to decentralized structures. Many problems have been reported on this institutional landscape. Development professionals and government officials consider the handling of environmental issues to be the exclusive responsibility of the environment units. Donor agency units and government ministries working with other sectors are not held accountable for the environmental sustainability of the policies, programmes and projects that they promote and are seldom provided with the mandates, procedures or capacity to meet such measures. To the rest, mainstreaming environment is

secondary. This does not build a strong institutional culture for mainstreaming.

226. Although it could also be argued that establishment of environmental agencies and units increases the visibility of environmental issues, there is an emerging concern that some of these structures lack funding or are bogged down by bureaucratic procedures for EIA clearance; this raises governance questions.
227. Constituents of drylands ecosystems are treated in isolation, based on different institutional mandates. Even institutions such as environmental management or protection authorities, which have been established to assume coordination roles in environmental management, are failing in this regard. They lack the clout and in some cases the capacity to be effective. Other ministries or agencies focus on protecting their identities and budgets. The number of specialized agencies (for drylands, forests, land, environment, etc.) has grown. The projects they implement in drylands are “often like broken pieces and lack a unified plan”, as aptly put in the national case study on mainstreaming drylands in China (Bo, 2007).
228. The above challenges are heightened in many countries that have embraced decentralization policies, sometimes with a five-tier administrative structure, as in the case of Ghana. This is complicated further in countries where the decentralized government structure has to interface and work with traditional institutions that have different interests, work methods and decision-making hierarchies (e.g. Namibia, Ghana and India). The mismatch between responsibilities delegated to lower-level structures for planning and environmental management and resources created a situation of institutional failures. Accordingly, an important question is arising as to whether countries’ institutions are not taking up a lion’s share of the resources for their own operational costs, compared to on-ground investment in drylands.

8.2.7 Too many plans competing for too few resources

229. This is perhaps one of the critical barriers to investment in drylands. There are too many plans, some of which are housed in and implemented by ministries and others by specialized semi-autonomous institutions and multiple local governments.

8.2.8 How to ensure the voices of the most vulnerable are heard

230. Countries have openly expressed their weaknesses in involving drylands peoples in planning. They have gone far as to state that drylands-based projects have not produced the expected results. Very few tools have been designed and applied to account for the vulnerability of drylands inhabitants. In fact, even international guidelines point to this difficulty—that directly consulting the vulnerable stakeholders does not guarantee a policy will be implemented. This is more evident when one appreciates that the vulnerable are not likely to be consulted in a process where rules, legislation, networks, political allegiances and bureaucratic structures all interact to form a complex web.

8.2.9 Difficulty in maintaining mainstreaming continuity amidst political and administrative transition

231. The above situation occurs where labour turnover is high and diverse political ideologies differ between and within generations. Unless supports to mainstreaming leave a ‘memory’ among institutions and individuals the risk of discontinuity can be enormous.

8.2.10 Mainstreaming is considered *en vogue*

232. There is a fear now that because mainstreaming is trendy, it may overshadow attempts to focus on the serious problems of combating desertification, land degradation, drought preparedness and climate change. This risk is especially real at a time when drylands do not feature strongly in planning frameworks. For this reason, countries have recommended a dual approach, whereby drylands-focused programmes must be implemented alongside mainstreamed issues.

8.2.11 Too many issues being mainstreamed at the same time

233. It is not only drylands or environmental issues that countries are attempting to mainstream. The list

varies by country but also includes gender, HIV/AIDS, governance and human rights. The conceptual frameworks for linking these issues to human well-being and the necessary tools vary greatly. With limited capacity for mainstreaming multiple issues, countries often try to take on too much.

8.2.12 There is an urgent need to improve governance through improved tenure rights

234. Communities in drylands are disenfranchised because of lack of secure access to resources. This creates disincentives for SLM. Presently, Ethiopia is engaged in a debate on the issue of land ownership. Under the current landholding system all land is publicly owned. Both the federal government and several regional states have issued a rural land proclamation with a view to enhance land tenure security, among other things. Kenya and China attribute continued land degradation to inadequate tenure policies. Namibia considers improved administration of land tenure in communal areas to be urgent. Samoa too, puts it clearly that unless issues pertaining to land tenure are addressed, SLM practices will be ineffective. Uganda's case is no different; however, it ambitiously challenges itself in the PEAP to increase the proportion of households with access to secure land tenure from the baseline of less than 1 percent in 2002/03 to 15 percent in 2007/08 and 25 percent in 2013/14. All in all, governments will go a long way to empower people if they address this long-standing problem.

8.2.13 Many institutions are working on ENR nationally, with weak links both horizontally and vertically

235. It may have been logical in the early 1990s to make ENR visible after UNCED established institutions to advocate for sustainable environmental management. However, the plethora of institutions created a problem of coordination and duplicity of mandates. To date, coordination among institutions implementing sustainable development programmes remains weak, both horizontally and vertically. Those with mandates to coordinate certain functions lack the necessary clout, and the expense of sustaining the programmes is high.

8.2.14 Marginalization of drylands-based traditional institutions and decision-making processes

236. It was gratifying to learn that countries that have respected traditional institutions and indigenous knowledge have added value to drylands management initiatives (Argentina, China, Ethiopia and Ghana). The only challenge is that their use is not yet on a scale that can sustain such initiatives. This could only come about by a change in the pervasive negative attitude towards drylands cultures.

9 Key messages and recommendations

This chapter discusses the way forward for drylands mainstreaming, based on the major findings.

237. Table 9.1 summarizes the major findings and the proposed next steps.

Table 9.1 Major findings and the proposed way forward

Issue	Proposed next steps
(i) The perception that drylands are wastelands is a barrier to the integrated development of such areas.	<ul style="list-style-type: none"> • Countries, through valuation studies, must raise the importance of drylands as a matter of urgency. • Drylands-focused mainstreaming is justified in its own right, more so in light of increasing population growth rates and economic values, but also because of their value as unique ecosystems.
(ii) There is increasing uncertainty for the ability of the ENR sector to compete with other sectors such as education, health, etc. because of a shift from a project-oriented approach to GBS, and because of the Paris Declaration on Aid Effectiveness.	<ul style="list-style-type: none"> • Efforts to help countries mainstream drylands in planning frameworks that are used for resource allocation must be intensified. • Equally, innovative financing mechanisms need to be given urgent attention (e.g. through the use of MBIs which can therefore draw resources from the general public).
(iii) The raising of private sector financial resources from a few countries (China, Kenya, Morocco, etc.) for combating desertification is promising. It complements donor and government efforts.	<ul style="list-style-type: none"> • UNDP-DDC partnerships with other development partners should support a programme to study and broaden financing opportunities from the private sector.
(iv) For the last 15 years, countries have made several policies, laws and strategies on ENR, and established institutions to implement them. Some of these have focused on drylands alone. However, they seriously face an 'implementation gap', thus slowing down progress towards poverty reduction and attainment of the MDGs.	<ul style="list-style-type: none"> • Countries should now prioritize and increase pro-poor investment in environmental assets, as they seek support to identify and remove all financial, investment, institutional, capacity, governance and policy barriers.

Issue	Proposed next steps
(v) Capacities for mainstreaming are still low. Owing to the multiplicity of institutions, capacity building will be expensive. Implementation gaps exist because capacity assessment is not undertaken as part of mainstreaming.	<ul style="list-style-type: none"> • More support for capacity building for drylands mainstreaming processes should be mobilized. • Countries should be challenged to assess their capacities as part of mainstreaming processes.
(vi) With the help of development partners, countries are either implementing, on a small scale, projects for improving market access, adding value to the use of natural resources, applying mainstreaming tools, introducing innovative funding mechanisms and harmonizing donor coordination. Others are much further ahead in these practices.	<ul style="list-style-type: none"> • UNDP, in cooperation with other development partners, should enter strategic partnerships to facilitate knowledge processing and transfer among countries on drylands to expedite the adoption of good practices.
(vii) Even if not vigorously applied, technical, economic and social studies stimulate important debate and support an ever-evolving and dynamic policy process.	<ul style="list-style-type: none"> • Selective studies, which add value to knowledge and mainstreaming processes, should continue to be supported.
(viii) Policy formulation and planning frameworks are protracted, taking 4–8 years. Unless the teams or champions are kept together, the momentum of mainstreaming may be lost, especially in the infancy stage.	<ul style="list-style-type: none"> • A cadre of champions—whether institutional or individual—should be identified and provided with budget lines to support mainstreaming processes. Their capacities should also be developed.
(ix) Some countries (e.g. Argentina, China and Ethiopia) have used indigenous knowledge, while others (e.g. Ghana and India) involve traditional leaders to respond to threats of desertification.	<ul style="list-style-type: none"> • Special studies on the contribution and value of indigenous knowledge and traditional leaders should bear on the design and implementation of programmes in drylands areas.
(x) Involving the private sector, media and CSOs in mainstreaming can be rewarding. A few governments have made breakthroughs in forging formal networks with these players.	<ul style="list-style-type: none"> • A special programme to develop the capacity of non-state actors in mainstreaming should be developed and supported.
(xi) Progress has been made (with varying degrees of success) to integrate ENR in planning frameworks. But few countries have institutionalized annual reviews to assess the impacts on people’s well-being and effectiveness of mainstreaming itself.	<ul style="list-style-type: none"> • UNDP-DDC should support countries to institutionalize M&E of mainstreaming processes. In so doing, it will be contributing to governments’ accountability to their citizens.

Lessons from Mainstreaming Environment with a particular focus on Drylands issues into National Development Frameworks

Issue	Proposed next steps
(xii) Reports did not feature countries' financial commitments to drylands management, and yet this is one of the objectives for mainstreaming. Even if there are barriers to financing, their magnitude needs to be established.	<ul style="list-style-type: none">• UNDP-DDC should commission PETS in a number of countries and share the findings widely.

10 Conclusions

238. There is no doubt that countries have made general progress in mainstreaming ENR; however, they are lagging behind with specific reference to drylands. A key barrier to drylands mainstreaming has been negative attitudes towards them and the view of them as unproductive wastelands. However, the evidence provided in Chapter 2 demonstrates that, with renewal of commitment, drylands have many values that support sustainable human development and attainment of the MDGs. It is these values that have not been properly documented and marketed.
239. It was gratifying to establish that, despite the remaining challenges, the concept of environmental mainstreaming is well accepted even if it is not universally understood and operationalized. Additional efforts are needed to market it at all levels—global, regional, national, sub-national and local. Efforts are especially needed given the fact that countries lack capacity to implement the many planning processes that offer opportunities for drylands mainstreaming.
240. It remains a concern that, where progress has been made to mainstream ENR or drylands in planning frameworks, it has not been followed by commensurate funding. This results in a situation countries have described as the ‘implementation gap’. There is urgency to address this challenge, because with a shift to GBS from projects by donors, competition for resources from a central pool will be fierce.
241. By its nature, mainstreaming calls for the highest level of coordination. Countries that have placed this function in effective ministries or agencies have made reasonable progress. Others lack political commitment. In some cases, political will is generated through intensive lobbying, including the use of the power of media.
242. As countries look forward to improving drylands mainstreaming processes, they stand to gain from sharing knowledge. Donors have a special role to play in providing funding and technical assistance.
243. The lessons learnt from mainstreaming drylands into national development strategies are useful for informing the revision of the PRS or other national development frameworks. They are released at the right time and respond to a demand from countries that have accepted drylands mainstreaming as a culture to address environmental issues.

Annex 1 Tools used in mainstreaming processes

Tool	What it is?	How to apply it?	When to apply it?	Additional references
<p>1) Strategic Environmental Assessment (SEA)</p> <p>(Barbados, Ghana and Namibia)</p>	<p>SEA is defined as “analytical and participatory approaches to strategic decision-making that aim to integrate environmental considerations into policies, plans and programmes and evaluate the inter linkages with economic and social considerations” (Development Assistance Committee [DAC] Network on Environment and Development Cooperation, 2005).</p>	<p>It is applied to policies, macro- plans and programmes with a broad and long-term strategic perspective following stages of i) understanding the context, ii) determining objectives and targets, iii) defining the baseline conditions, iv) evaluating the existing policies, plans and programmes, v) predicting effects, vi) developing Indicators, vii) considering alternatives, considering the scope for mitigation and viii) M&E (based on Ghana)</p>	<p>At the initiation, implementation and monitoring of policies, plans and programmes.</p>	<p>http://www.environment-integration.org</p> <p>www.iema.net/conferences/intro/sea_forum</p> <p>www.eeb.org/activities/biodiversity/Final-SEA-report-271205.pdf</p>

Tool	What it is?	How to apply it?	When to apply it?	Additional references
2) Sustainable Livelihood Approach (SLA) (Namibia)	SLA is a way to improve the understanding of the livelihoods of poor people by drawing on the main factors that affect their livelihoods and the typical relationships among them. These are human capital, natural capital, financial capital, social capital and physical capital.	SLA is applied by using a Sustainable Livelihoods Framework, which presents the main factors that affect people's livelihoods and the typical relationships between these factors. In particular, the framework provides a checklist of important issues and sketches out the way they link to each other; it also draws attention to core influences and processes and emphasizes the multiple interactions between the various factors that affect livelihoods.	It can be used at the initiation, when planning new development activities and assessing the contribution to livelihood sustainability made by existing activities.	www.livelihoods.org/info/guidance_sheets www.odi.org.uk
3) Transect walk (Uganda)	Transect walk is a simple tool for describing and showing the location and distribution of resources, features, the landscape and main land uses along a given transect.	The transect walk involves organising 2 or 4 groups with a mix of participants, using the Village Resources Map. It can be used to identify and explain cause-and-effect relationships	It is done at the initiation to help build on the village resource map and learn more details about the environmental, economic and social resources in a community. It can be used	http://www.fao.org/participation//english_web_new/content_en/linked_Pages/transect.htm http://www.fao.org/participation//english_web_new/c

Tool	What it is?	How to apply it?	When to apply it?	Additional references
		<p>between topography, soils, vegetation, cultivation and other production activities and human settlement patterns etc., together with their associated major problems and possibilities. It can contribute to an understanding of policy change impact on physical features, resources and livelihoods and the triangulation of data collected through other tools.</p>	<p>to benchmark the baseline situation and subsequently to monitor trends.</p>	<p>content.en/linked/Pages/transitionsect.htm</p>
<p>4) Environmental Impact Assessment (EIA) (Kenya, Ethiopia, Namibia, Tanzania, Uganda, etc)</p>	<p>EIA is an <i>ex-ante</i> assessment of environmental impacts of a project before its implementation and recommends measures to mitigate negative and enhance positive impacts.</p>	<p>EIA is applied at an early stage in project planning and design. The key elements are: (i) scoping, (ii) screening, (iii) identifying and evaluating alternatives, (iv) mitigating measures dealing with uncertainty and (v) issuing environmental statements.</p>	<p>It is carried out in the formulation phase, preferably before economic analysis.</p>	<p>http://www.gdrc.org http://ec.europa.eu/environment/iea/ http://www.sed.manchester.ac.uk/research/iarc/publications</p>

Tool	What it is?	How to apply it?	When to apply it?	Additional references
<p>5) Participatory Poverty Assessments (PPA)</p> <p>(Namibia, Tanzania, Uganda, etc)</p>	<p>PPA is an iterative, participatory research process that seeks to understand poverty from the perspective of a range of stakeholders and to involve them directly in planning follow-up action. PPA also includes decision makers from all levels of government, civil society and the local elite, thereby uncovering different interests and perspectives and increasing local capacity and commitment to follow-up action.</p>	<p>Many PPAs rely on a range of research toolkits, including those based on Beneficiary Assessment, Rapid and Participatory Rural Appraisal and Participatory Learning Action. The 'core techniques' for PPA include conversational and semi-structured interviews, focus group interviews and participant observations.</p>	<p>PPAs are carried out in the formulation phase of national policy, with the aim of including perspectives of the poor and their priorities in terms of actions needed to improve their lives. They are also used in the evaluation of policies.</p>	<p>www.odi.org.uk/pppg</p> <p>http://www.idi.ac.uk/particip/research/ppa</p>
<p>6) Green Accounting or Natural Resource Accounting</p> <p>(China and Namibia)</p>	<p>Refers to the modified System of National Accounts (SNA) to incorporate the use or depletion of natural resources and the flows to the environment (e.g.</p>	<p>The gross national product (GNP), which hitherto has been used to measure the economic progress of the country, is adjusted to reflect important environmental resources and flows from the</p>	<p>It can be applied anytime, particularly to measure and monitor changes in national economic performance.</p>	<p>http://unstats.un.org/unsd/pubs/</p>

Tool	What it is?	How to apply it?	When to apply it?	Additional references
	pollution).	economy to the environment.		
7) Threshold 21 (T21)	T21 is a quantitative tool for integrated comprehensive development analysis. Its purpose is to support the larger process of development planning by facilitating information collection, deepening understanding of the key structural relations, and enhancing the analysis of development strategies. It can provide insight into the potential impact of development policies across a wide range of sectors and show how well different strategic alternatives achieve desired goals and objectives.	At the heart of T21 is a core model that broadly reflects the structure and relationships of economic development. Each application of T21 is customized to meet the specific planning and analysis needs of the country or region.	T21 is carried out at the formulation and implementation phase during planning and M&E.	www.threshold21.com/download.html .
8) Environmental Sustainability Index (ESI)	ESI measures countries' progress towards	It is measured quantitatively through an equally	The collaborating institutions calculating ESI	www.yale.edu/esi/ESI2005_Main_Report.pdf

Tool	What it is?	How to apply it?	When to apply it?	Additional references
	<p>environmental sustainability using a set of 21 indicators in five core components: i) environmental systems, ii) reducing environmental stress, iii) reducing human vulnerability, iv) social and institutional capacity to respond to environmental challenges and v) global stewardship.</p>	<p>weighted average of scores. The higher a country's ESI scores, the better positioned it is to maintain favourable environmental conditions in the future.</p>	<p>use it periodically, (latest: 2005).</p>	
<p>9) Ecological footprint analysis (EFA)</p>	<p>The ecological footprint is a measure of the load or pressure imposed on the national environment by a given population and represents the land area required to sustain current levels of resource consumption, waste discharge and infrastructure development by the population (World Wildlife Fund [WWF], 2002a). It is</p>	<p>EFA is measured in global hectares. A global hectare is one hectare of average biological productivity. A five-hectare footprint indicates that five hectares of biologically productive space are in constant production to support the average individual of a country. However, an ecological footprint of a country must be compared</p>	<p>This measure is calculated periodically by its founders, WWF.</p>	<p>www.earthscope.org/rl/wam01.pdf</p>

Tool	What it is?	How to apply it?	When to apply it?	Additional references
	<p>one of the indicators of environmental sustainability used to measure a people's demand on nature and compares human consumption of natural resources with the earth and the ecological capacity to regenerate them.</p>	<p>with that fraction of the biosphere that is biologically productive to determine whether or not the human consumption of natural resources is exceeding the earth's biological capacity.</p>		
<p>10) Local Level Participatory Planning Approach (LLPPA) (Ethiopia)</p>	<p>This is a participatory planning approach used by communities to appraise and prioritize major problems and to probe deeper in addressing major constraints within the community. Its development was initially supported by the Food and Agriculture Organization (FAO) (to the Ministry of Agriculture), and refinement was made by WWF. It is used in 72</p>	<p>Experts (e.g. extension agents) facilitate communities to reach a consensus of their needs in a systematic way.</p>	<p>It is used at the time communities prepare local level plans.</p>	<p>http://portals.wi.wur.nl/ppme/</p>

Tool	What it is?	How to apply it?	When to apply it?	Additional references
	districts where WWF operates the MERET project.			
11) Integrated Ecosystem Management (IEM) (China)	IEM provides a comprehensive and cross-sectoral approach to addressing many of the goals of global environmental conventions and to the generation of multiple benefits. It reflects the realities of poor people who understand ecosystem degradation and environmental risk as a threat to their livelihood strategies. This approach is relatively new and there is limited information.	The ecosystem approach can be applied in a sequential series of steps which include: i) identification of area and key stakeholders, ii) ecosystem structure, function and management, iii) economic issues, iv) adaptive management over space—impact on adjacent ecosystem and other ecosystems—and v) adaptive management over time.	At the initiation, implementation, monitoring and analysis of plans and policies.	http://www.iucn.org/theme/cem/documents/ecosapproach/esacomparative_final_sept2006_lrs.pdf
12) Environmental audit (Kenya, Uganda)	This is a systematic, documented verification process of objectively obtaining and evaluating audit evidence (verifiable information, records or	Environmental audits are evaluations of stated commitments and mitigation plans intended to help an organization establish and continue to	They can be carried out anytime as a routine monitoring measure.	www.epa.gov http://www.environmental-auditing.org/

Tool	What it is?	How to apply it?	When to apply it?	Additional references
	<p>statements of fact) to determine whether specified environmental activities, events, conditions, management systems, or information about these matters conform with audit criteria (policies, practices, procedures or requirements against which the auditor compares collected audit evidence about the subject matter), and communicating the results of this process to the client (the organization commissioning the audit) (ISO).</p>	<p>meet its environmental policies, objectives, standards and other requirements.</p>		
<p>13) Drought Proofing Planning (DPP) (India)</p>	<p>DPP focuses on strengthening the livelihood strategies of people with regard to food security, fodder and water, while augmenting the</p>	<p>It has been proposed that village level DPP involves the following steps: (i) carrying out livelihood studies, (ii) household vulnerability analysis, (iii)</p>	<p>At the planning stage, in localities vulnerable to food, water, and fodder scarcities.</p>	<p>http://www.epconnet.com/index.html</p>

Tool	What it is?	How to apply it?	When to apply it?	Additional references
	resource base available within the village or the region.	natural resource mapping and (iv) preparation of Drought Proof Action Plans.		
14) Forum for Integrated Resource Management (FIRM) (Namibia)	FIRM is an approach that puts rural communities in charge of their own development. It serves as an institutional structure for sharing of information and a basis for taking informed and improved decisions about integrated natural resource management.	A community-based organization (CBO) organizes, plans and monitors development activities while coordinating the interventions of others, called 'service providers'. These may be traditional authorities, government extension services, NGOs or project teams.	It is done during the formulation and implementation of development agendas at the community level.	http://www.dmpafrica.net/FIRMoverview.htm www.dfrn.org.na/firm
15) Local Level Monitoring Framework (LLMF) (Namibia)	LLMF is an effective decision-support system at the local level contributing to implementation of sustainable land use management practices through the collection of information on important indicators to guide management.	Communities themselves identify information needs and, in close cooperation with technical advisors, develop relevant indicators for monitoring purposes. However, the list of indicators may expand as skills, needs and faith in the programme grow. A field	It is carried out during the initiation, monitoring and implementation of sustainable land use management practices.	http://www.dfrn.org.na/Local%20Level%20Monitoring.pdf

Tool	What it is?	How to apply it?	When to apply it?	Additional references
		<p>guide was developed on how to conduct regular monitoring, with colour photos, graphics and colour-coded information sheets.</p>		
<p>16) Stakeholder analysis</p>	<p>This is a tool to identify all those people or groups of people that will affect or be affected by a proposed project.</p>	<p>There are eight major steps for carrying a stakeholder analysis: i) planning the process, ii) selecting and defining a policy, iii) identifying key stakeholders, iv) adapting the tools, v) collecting and recording the information vi) filling in the stakeholder table, vii) analysing the stakeholder table and viii) using the information.</p>	<p>This tool can be used before implementation of a programme or policy to define responsibilities and articulate roles.</p>	<p>http://www.preval.org/documentos/ma0003.pdf</p>
<p>17) Visioning (Uganda)</p>	<p>This is a tool to visualize and focus on our ultimate objectives or dreams. Visioning exercises are regularly used in urban and</p>	<p>In a typical visioning exercise, a facilitator asks participants to close their eyes and imagine they are walking along their, e.g.</p>	<p>At the planning stage.</p>	<p>http://www.odi.org.uk/RAPID/Tools/Toolkits/Communication/Visioning_scenarios.html</p>

Tool	What it is?	How to apply it?	When to apply it?	Additional references
	<p>strategic planning and allow participants to create images that can help to guide change in the city. They may also be used to promote thought and encourage discussion of future land use and planning options without the need to create a future-oriented document.</p>	<p>shoreline as they would like to see it in say 15 years. What do they see? What do the buildings look like? Where do people gather? How do they make decisions? What are they eating? Where are they working? How are they travelling? What is happening on the street? Where is the centre of the neighbourhood? How does green space and water fit into the picture? What do you see when you walk around after dark? People record their visions in written or pictorial form: in diagrams, sketches, models, photographic montages and written briefs.</p>		
<p>18) Vulnerability Analysis and Mapping (VAM)</p>	<p>VAM is a World Food Programme (WFP) information tool that</p>	<p>The standard analytical framework (SAF) is a response developed by</p>	<p>VAM activities are carried out before, during and after a crisis to support informed</p>	<p>http://www.wfp.org/operations/VAM/index.asp?</p>

Tool	What it is?	How to apply it?	When to apply it?	Additional references
(Ethiopia)	<p>supports the design and management of WFP relief and the development of food-oriented activities. VAM expertise in the analysis of food security and vulnerability conditions supports food aid decision-making in WFP regional and country offices.</p>	<p>VAM to answer all WFP's information needs on the hungry poor at all stages of programming and help the agency choose the right food aid strategy. The SAF define a core set of activities, which include: Situation Analysis, Community Food Security Profiling and Periodic Vulnerability Monitoring.</p>	<p>decision-making of WFP's activities.</p>	
19) Multi- Criteria Analysis (MCA)	<p>Techniques can assess a variety of options according to a variety of criteria that have different units (e.g. \$, tonne, km, etc.). This is a significant advantage over traditional decision-aiding methods (e.g. cost-benefit analysis) where all criteria need to be converted to the same unit (e.g. dollars only). They also have the capacity to analyze both quantitative</p>	<p>MCA techniques have three common components: (i) a given set of alternatives, (ii) a set of criteria for comparing the alternatives (iii) and a method for ranking the alternatives based on how well they satisfy the criteria.</p>	<p>They are best applied when resolving trade-off choices where the use of one method would not reconcile with other developmental objectives.</p>	<p>www.cifor.cgiar.org/acm/methods/mca.html</p>

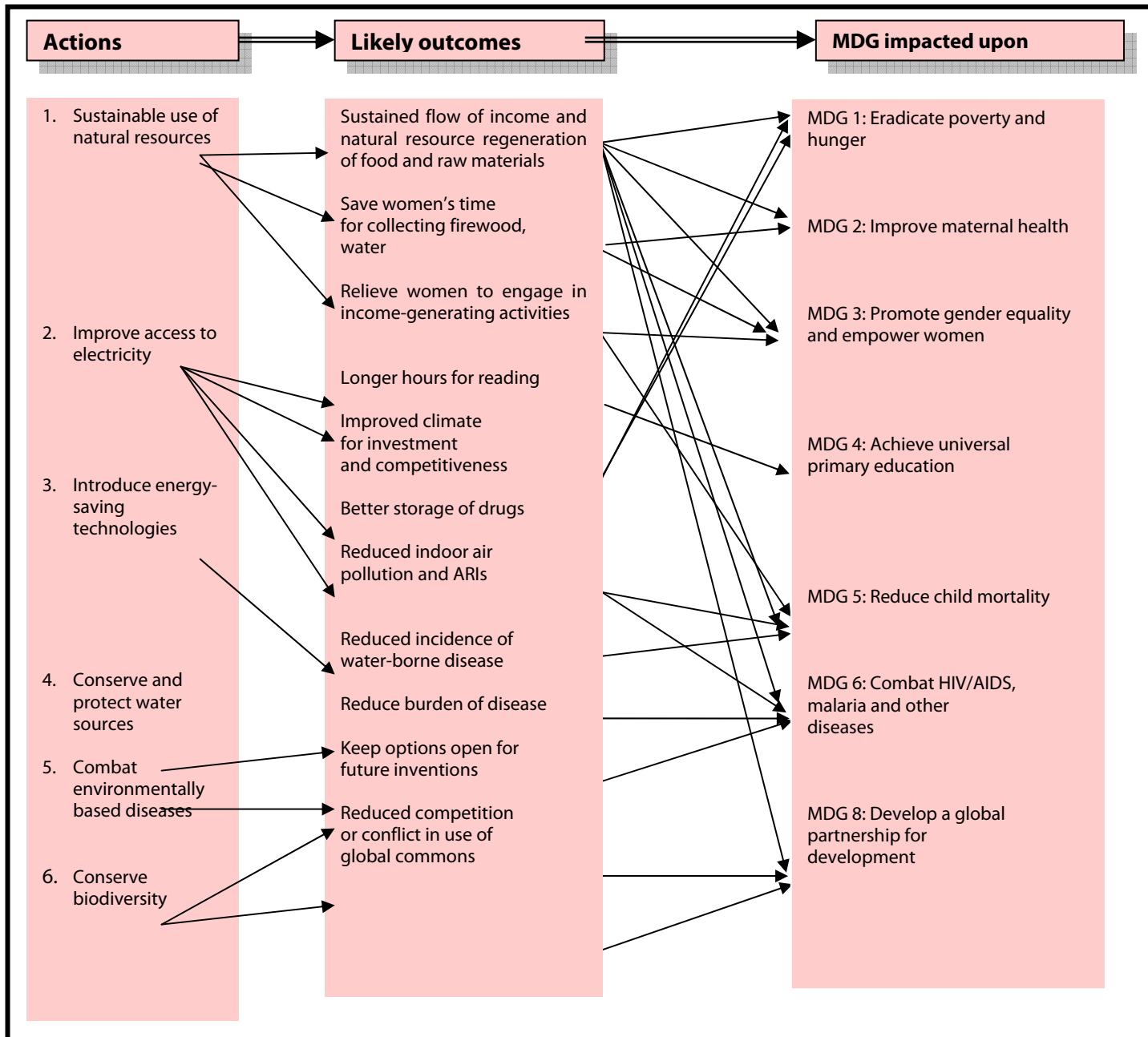
Tool	What it is?	How to apply it?	When to apply it?	Additional references
	and qualitative evaluation criteria (e.g. yes or no, pluses and minuses).			
20) Opportunities and Obstacles to Development (O&OD) (Tanzania)	O&OD is a participatory community planning process to empower the people on the basis of a bottom-up approach and positive thinking.	The planning process of the O&OD begins with the preparation of the village development plan in rural LGA and the Ward Development Committee (WDC) in urban LGA. In the rural LGA, the VDP is discussed and given technical advice at the WDC before approval at the village assembly. In theory, the LGA is supposed to incorporate VDPs or WDPs into the LGA plan. The process up to this point is called the O&OD roll-out process; the process after this point is post O&OD roll-out.	It is applied during the planning process.	www.poralg.go.tz/documents_storage/2007
21) Participatory Impact	PIM is the continuous	The steps of introducing	It is used for evaluation and	http://www.ifad.org/events/

Tool	What it is?	How to apply it?	When to apply it?	Additional references
Monitoring (PIM) (Argentina)	observation, systematic documentation and critical reflection of project impact, followed by corrective action (plan adjustments, strategy changes). It is done by project staff and target groups, using self-generated survey results.	and implementing PIM at the development agency level are: i) agreeing on the objective of PIM, ii) identifying expectations and fears regarding impact, iii) deciding on impacts to be monitored, iv) formulating an impact hypothesis, v) examining existing M&E data on impact, vi) developing indicators and survey methods, vii) collecting data and processing information and viii) deciding corrective action and future PMI.	implementation of self-help groups and projects.	past/impact/presentation/pim.htm
22) Social Accounting Matrix (SAM) (Namibia)	A SAM is a square matrix of monetary flows that reflect all transactions between the various entities in an economy. It maps out all flows of funds emanating from one actor paid to another. The number of	SAMs disaggregate the macroeconomic (national) accounts and link these with the economy's input-output accounts. The SAM is thus an expansion of input-output accounts incorporating more	It can be computed periodically to trace the changes in flows in the economy.	www.ifpri.org

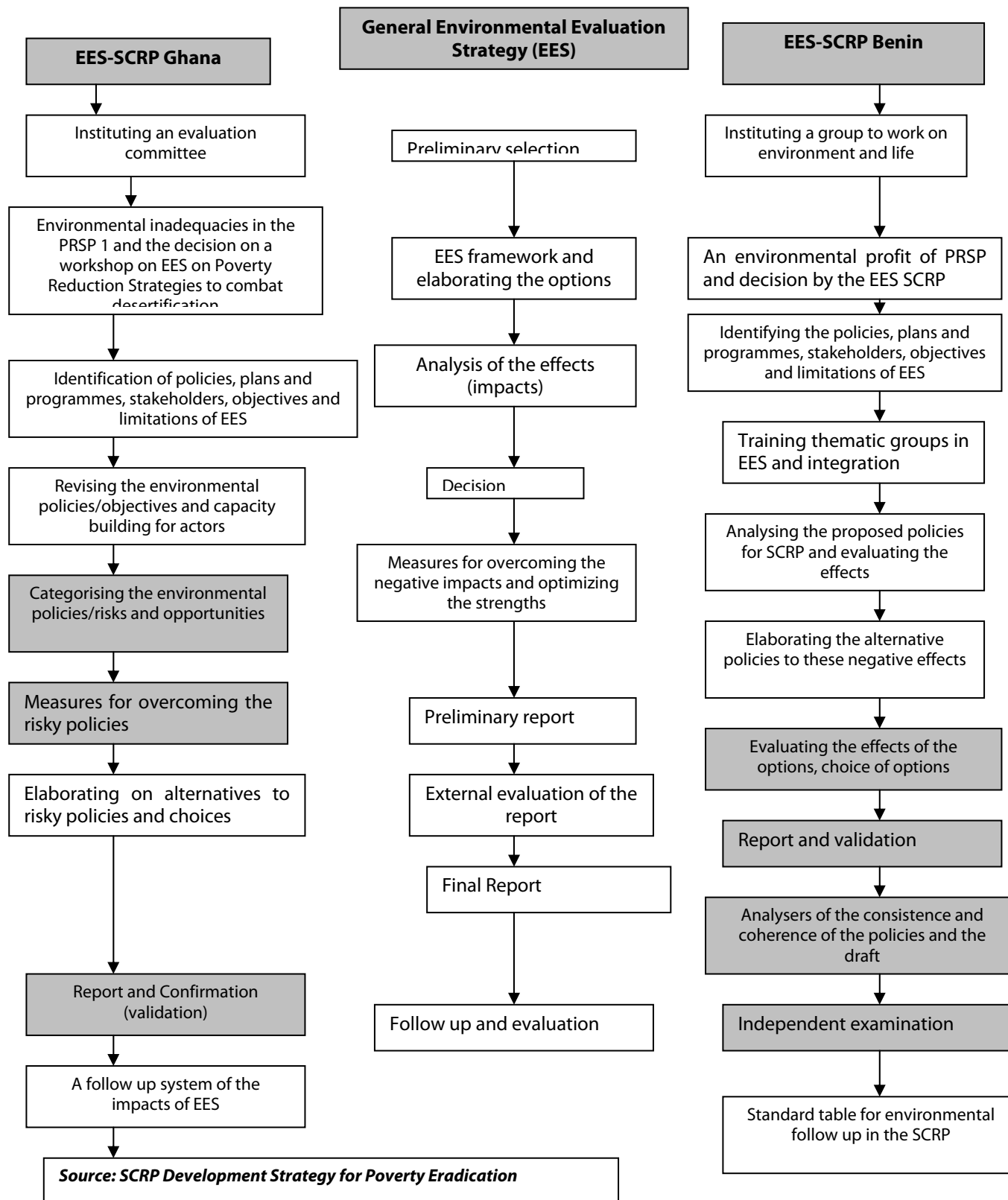
Tool	What it is?	How to apply it?	When to apply it?	Additional references
	transactors, called accounts, constitute the dimension of the square matrix.	disaggregated details of factors and institutions, such as the various types of labour and households.		
23) Linear programming (Barbados)	<p>Linear programming is a mathematical approach to the problem of allocating limited resources among competing activities in an optimal manner. Specifically, it is a technique used to maximize revenue, contribution margin or profit function, or to minimize a cost function, subject to constraints. Linear programming consists of two important ingredients: (i) objective function and (ii) constraints, both of which are <i>linear</i>.</p>	<p>The steps involved in linear programming include: Step 1: Model the problem, Step 2: Rewrite the constraint inequalities into equations by introducing a slack variable, Step 3: Rewrite the profit function, Step 4: Construct the simplex matrix using the constraint equations (Step 2) and the profit equation (Step 3), Step 5: Find the solution to the simplex matrix, Step 6: Find the pivot column, Step 7: Find the pivot row, Step 8: Find the pivot number, Step 9: Eliminate any other numbers in the pivot column, Step 10: Find the solution to the matrix and</p>	<p>It is used in the planning process of projects and programmes.</p>	<p>http://www.math.ucla.edu/~tom/LP.pdf</p> <p>www.castleton.edu/Math/finite/linear_programming.htm</p> <p>http://www.answers.com/topic/linear-programming</p>

Tool	What it is?	How to apply it?	When to apply it?	Additional references
		Step 11: Repeat steps 6 through 10 to find the maximum solution.		

Annex 2 Delivering on MDG 7 (Environmental sustainability) helps to deliver on other MDGs



Annex 3 Stepwise integration in Benin



Annex 4 Examples of DPSRI indicators for agricultural projects in drylands

Driving force	Pressure	Status	Impact	Response
1. Increase in population 2. Trade liberalization.	1. Net export of agricultural land per agricultural worker 2. No. of live animals per hectare of permanent pasture.	1. Share of agricultural GDP in total GDP 2. Share of population dependent on agriculture in total population 3. Share of agricultural labour force in total labour force 4. Share of agricultural land in total area 5. Share of arable land and land under permanent crops in total agricultural area 6. Share of arable land in total agricultural land 7. Share of land under permanent crops in the total agricultural land 8. Share of land under permanent pastures in the total agricultural land 9. Fertilizer consumption per hectare of arable land 10. Fertilizer consumption per hectare of agricultural land 11. Pesticide consumption per hectare of arable land 12. Pesticide consumption per hectare of agricultural land 13. Number of tractors used per hectare of arable land	1. Poverty index 2. Daily calorie intake per capita.	1. Value of agricultural production per hectare of agricultural area 2. Agricultural GDP per agricultural worker (labour force) 3. Agricultural investment per hectare of agricultural area 4. External assistance to agriculture per hectare of agricultural area.

		14. Share of irrigated land in total agricultural land		
		15. Share of irrigated land in total land under temporary and permanent crops.		

Annex 5 Guidance note on selection criteria for environmental indicators

In general, selection criteria for environmental indicators are usually based on three overriding considerations: data reliability and analytical soundness, issue relevance and usefulness to the user. The criteria reflect the essential requirements for credible information to meet user needs. If the information is not reliable, then improved decision-making is not likely to be achieved and unsustainable policies and actions may result. On the other hand, if the information is not comprehensible it will not be used in the decision-making process. The characteristics of each criterion are outlined below, recognizing that there is some overlap between the categories. For example, geographic coverage should be appropriate for the issue, but is also relevant to the user.

Common indicator selection criteria

Data reliability	Issue relevance	User utility
Scientific validity	Representative	Relevance
Data availability	Geographic coverage	Understandable
Data adequacy	Responsive to change	Reference value
Cost-effectiveness		Predictive
		Potential for comparison

Data reliability and analytical soundness

Scientific validity: The indicator should be technically and theoretically sound, consistent with specific knowledge and understanding, and its significance defensible; there should also be consensus among credible experts that the indicator is valid.

Data availability: The data to support the indicator should be readily available, accessible and timely; sufficient data should be available to show long-term trends; the potential to acquire future data on a regular basis should be reasonably secure; and measurement over space and time should be consistent and comparable.

Data adequacy: The data should be of good quality, that is, accurate, robust, able to be replicated, statistically reliable, based on standards and a fixed method of measurement and insensitive to extreme values and number of observations; the data should also be capable of being integrated, aggregated and disaggregated; metadata, including limitations, should be adequately documented; and the data should be useful for modelling and national accounting.

Cost-effectiveness: The data supporting the indicator should not be difficult or expensive to obtain; should be within the capacities of national governments to realize; and the cost/benefit ratio should remain positive over time.

Issue relevance:

Representative: The indicator should convey information broader than the parameter measured; and should provide a representative picture of environmental conditions, pressures on the environment, or societal responses.

Geographical coverage: The scope of the indicator should be appropriate for the region or country under study; ideally it should be applicable to different regions and scales; usually, the indicator should be national in scope, applicable to issues of national and international significance, or apply to major ecosystems.

Responsive to change: The indicator should be sensitive to temporal changes in the environment and related human activities; the indicator set should be open-ended and flexible to accommodate new priority issues.

User utility

Relevance: The indicator should provide information to meet user needs; it should be

meaningful in the context of environmental issues and stated goals and objectives.

Understandable: The indicator should be simple, unambiguous, and easy to interpret; the number of indicators should be limited in number; and the significance to the issue to which it is associated should be clear.

Reference value: The indicator should be associated with a threshold or target against which it can be compared, so that users are able to assess the significance of the values associated with it and track progress towards environmental goals.

Predictive: The indicator should provide early warning of future environmental trends that have significance to human health, the economy and ecosystems; and it should be capable of supporting scenario development and forecasting.

Potential for comparison: The indicator should be presented so that there is a basis for international comparisons where this is warranted by the issue.

Source: Rump, 1996

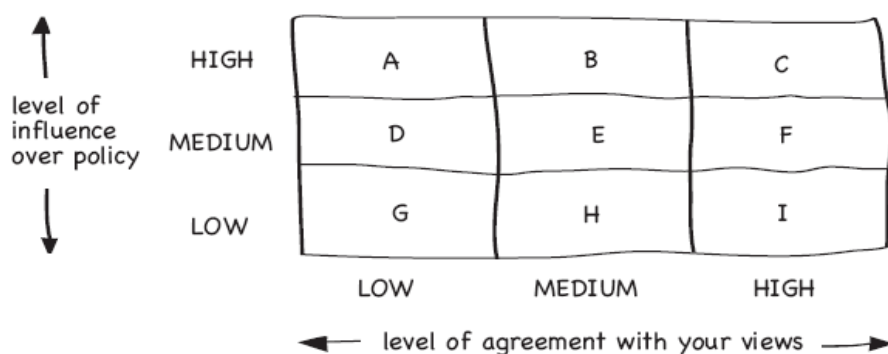
Annex 6 Stakeholder analysis and mapping tool

Aim: To identify target audiences and possible partners for your policy monitoring work.

Context: This tool can be used individually or with a group. To use this tool, you should already have identified a list of stakeholders for a given policy or plan.

How to use this tool:

Step 1: Draw a matrix like the one below (without numbering the squares).



Step 2: Consider each policy stakeholder you have identified in turn. For each one, clarify:

- how much influence they have over the policy, and
- what level of agreement there is between you and them when it comes to your views about the policy.

Step 3: Write the name of each stakeholder onto the matrix, deciding in which of the nine blocks you think they belong.

Step 4: Once you have placed all the stakeholders, analyze the pattern that has emerged. You will find that:

- the stakeholders in squares C, F and I represent potential partners. You may need to inform and mobilise some of them to work with you.
- those in square C are very important. They could be partners.
- those in squares A and B (and possibly E) represent the powerful stakeholders you will need to influence.

Step 5: Against this background, make a list of:

- specific people who represent the target audience for policy formulation process, and
- stakeholders you could team up with as partners.

Source: Adapted from Gordon, G. [2002b], *Practical Action for Advocacy and Materials for Training Programme on Advocacy and Policy Influencing*. Christian Relief and Development Association Training Centre

Annex 7 'Problem Tree' analysis tool

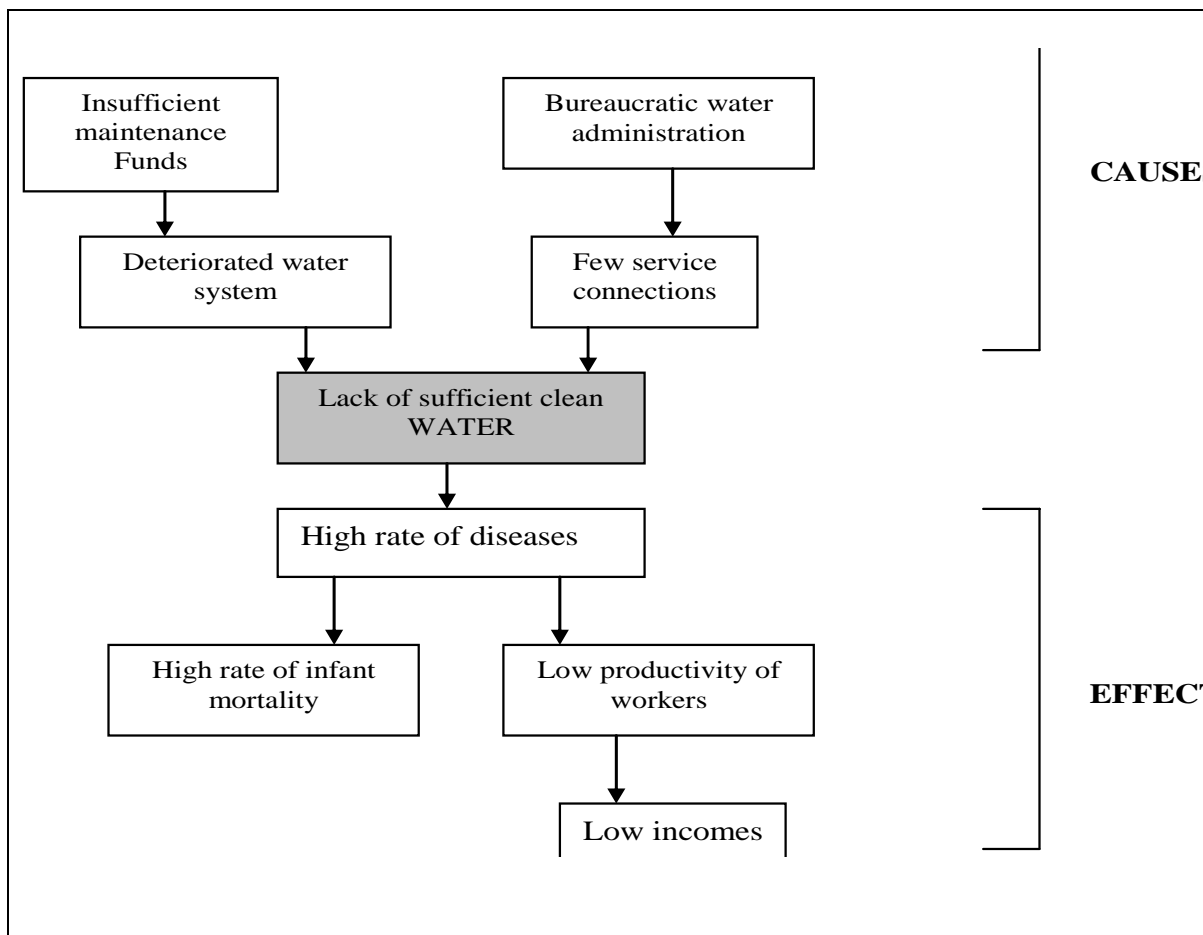
This tool assists in analyzing an existing situation by identifying the major problems and their main causal relationships. The output is a graphical arrangement of problems differentiated according to 'causes' and 'effects' joined by a core or focal problem. This technique helps understand the context and interrelationship of problems, and the potential impacts when targeting plans and programs towards specific issues. Use of cards (one problem per card) makes the tool useful for group participation in a workshop setting. The outcome represents the collective thinking of the participants.

The 'problem tree' is often followed by an 'objectives tree.' The problems are converted through simple rewording into specific objectives, and the chart then shows a 'means–ends' relationship. For example, 'lack of sufficient water' becomes 'improve water supply.' These objectives then provide a basis for project and programme definition.

Because the 'problem tree' is never static or seldom, if ever, the same for different groups and at different times, it is more a device to broaden thinking than a definitive project determinant. For example, 'lack of sufficient water' could either be a 'cause' or an 'effect,' depending on the situation and participating group; therefore, the project objectives and tasks would be different for each.

Steps

1. List all the problems that come to mind. Problems need to be carefully identified: they should be existing problems, not possible, imagined or future ones. The problem is an existing negative situation—it is not the absence of a solution.
2. Identify a core problem (this may involve considerable trial and error before settling on one).
3. Determine which problems are 'causes' and which are 'effects'.
4. Arrange in hierarchy both causes and effects, i.e. how do the causes relate to each other, which leads to the other, etc.



Annex 8 Lessons from the review of mainstreaming guidelines by other organizations

Introduction

A total of 11 guidelines by international agencies have been reviewed with the aim of selecting some of their practices to inform the Generic Drylands Mainstreaming Guidelines. They all fall in the 2001–2007 period. They are fairly long—on average 110 pages, the longest being 184 pages and the shortest only 28 pages. The size of these guidelines is a reflection of the many aspects their proponents would like to have internalized by the users. Some guidelines traced the legal basis for their justifications, which they found in MEAs and national legislation. Virtually all of them reflect the interests and mandate of their originators: biodiversity, disaster, environment, etc.

Main aspects brought out by international guidelines

The context of development: All guidelines explain the context in which they have been made, the motivation, and the objective they seek to satisfy. Increasingly, they underscore the importance of understanding the ecosystem or environment-poverty (human well-being) linkages. The guidelines are quite long out of necessity, as they contain reminders of obligations under the MEAs and the actions recommended by those MEAs, e.g. capacity building, awareness creation and integrated planning. They also reflect that if followed, the guidelines would help their originators to deliver on their obligations and commitments to MEAs (e.g. European Union, World Bank, Asian and African Development Banks, etc.).

A project-cycle is assumed: The guidelines assume linear planning, following the project cycle. Even then, some, such as the EC Environmental Integration Hand Book accepts that they put more emphasis on the initial phases of design and preparation (p. 66). Nonetheless, if well captured, the environmental impacts can be reflected in the logical framework. Further, they emphasize that terms of reference (ToR) for consultancies, studies and missions should be verified for their inclusion of specific tasks related to gathering information on environment.

Useful references on SEA: Virtually all of them concentrate too much on the use of SEA, perhaps reflecting the high-level policy and macro-planning that the international agencies engage in. Those that make reference to community-level relevant tools do so only in passing. Collectively, the guidelines are a very good source of information on SEA, and other references. It should be noted that they assume users have IT connectivity.

The complexity of decision-making: Owing to the fact that the guidelines emphasize the need to integrate environmental, economic and social aspects of development simultaneously, they categorically state that they are dealing with ‘hard choices’ of trade-offs. While that is the case, few attempt to explain how those ‘hard choices’ can be made (with known tools) or give case studies to show where they have been made. Nonetheless, they underscore the importance of transparency and public participation to allow the different stakeholders to bring forward their diverse views.

Use of case studies: The guidelines feature several case studies to elucidate their positions. However, some only include case studies from industrialized countries.

Underscoring the same principles of integration: They underscore the same principles of integration, most of which are traceable to Agenda 21 and post-Rio MEAs. These include participation by all citizens, partnership and cooperation, use of EIA and awareness creation, to mention but a few.

Asking the right questions: A practice promoted by the guidelines is to pose the right questions regarding the use of a tool at the relevant stage in the planning cycle and sometimes

in relation to the sector.

Reflection on indicators: The guidelines emphasize indicators; however, they do not dictate which ones should be used. They state that indicators are usually classified according to their level: input indicators (which measure the resources provided), output indicators (direct results), outcome indicators (benefits for the target group) and impact indicators (long-term consequences). Regarding environment indicators, the contribution to long-term or overall consequences does not always pass through benefits for a target group and the definition of 'outcome' indicators should thus be revised in order to include expected short-term environmental effects (impacts).

Environmental indicators can also be classified according to another system: the DPSIR³³ (driving-forces, pressure, state, impact, response):

- Driving forces relates to drivers, such as population growth, markets, education;
- Pressure refers to the human activities that generate impacts, e.g. fishing, logging, emission of pollutants;
- State refers to the situation and trends of environmental resources or parameters, e.g. forest cover or deforestation rate, water quality;
- Response refers to the measures taken in order to address environmental issues, e.g. establishing protected areas, preparing new laws;
- Impacts refer to the consequences for human beings, ecosystems and fabricated capital.

They emphasize that indicators should wherever possible be 'SMART' (specific, measurable, accurate, realistic and timely).

Criteria for assessing the effectiveness of mainstreaming: Some guidelines emphasize the need to evaluate the effectiveness of mainstreaming processes, based on a number of criteria such as the degree of political will, coordination, training awareness-raising and institutional commitment, among others. An illustrative example is given below.

Limitations of the international guidelines

Time and financial implications: Guidelines are silent on what it takes in time, and financial resources to complete the process of mainstreaming in the entry points they list, e.g. policies, visions, strategic plans, etc. This is perhaps not a problem to those agencies that have developed them.

General silence on unique aspects of drylands: The particularities of drylands are generally presumed because of a reference to the United Nations Convention to Combat Desertification (UNCCD). Because of that, they are weak in aspects related to vulnerability that are typical in drylands. Only the Development Assistance Committee (DAC) guidelines go so far as to propose minimum key strategic interventions for drylands (see box below).

DAC guidelines position on drylands

In drylands areas, there is increasing recognition of the potential benefits of taking a joint approach to combating desertification and adapting to climate change. Integrated drylands

³³ DPSIR is the causal framework for describing the interactions between society and the environment adopted by the European Environment Agency: driving forces, pressures, states, impacts, responses (extension of the PSR model developed by the OECD). See: <http://themes.eea.europa.eu/indicators/>

management is an important response strategy because it is supportive of efforts towards economic development and improving social welfare, thus reducing the underlying causes of desertification. Specific measures include the establishment or strengthening of early-warning systems; drought preparedness and management, including drought contingency plans; the establishment and/or strengthening of food security systems, including storage and marketing facilities; the establishment of alternative livelihood projects that could provide incomes in drought-prone areas and the development of sustainable irrigation programmes for crops and livestock. The policies outlined above, which are 'biodiversity- and desertification-friendly', would be largely **consistent and complementary to standard environmentally sustainable agricultural intensification** policy and indeed broader efforts to reduce rural poverty.

More biased towards negative impacts than positive ones: The guidelines were written from a background to try to avoid negative environmental impacts as early as possible in the planning cycle. A second objective—to recognize and realize opportunities for enhancing environmental conditions, thereby bringing additional benefits to development and economic activities—was not equally pursued.

Low profile of cross impacts from policies: The guidelines do not strongly reflect how to capture the environmental impacts of economy-wide policies (e.g. privatization, trade liberalization, institutional reform, taxation etc.). They are very useful for large programmes and projects. As countries embrace policy-driven development (from projects), this will be a challenging area. It is possible that the positive effect of a policy can be outstripped by the negative impacts from another, thereby necessitating taking the cross impact matrix to greater heights (see Figure 4.1). There are now at least six transmission channels through which the impacts of policies are distributed. They are: (i) employment, (ii) prices, (iii) access, (iv) assets, (v) transfer and taxes and (vi) authority (Department for International Development [DFID] and World Bank, 2005).

Annex 9 Useful sources of information by category

Category	Type of information	Information links
Poverty-environment linkages	This information shows the relationship between poverty and environment	<ul style="list-style-type: none"> - http://www.millenniumassessment.org/en/index - http://www.undp.org/energy/ - http://www.undp.org/pei/ - http://www.iucn.org/themes/spg/portal/related_sites.htm - World Bank's Little Green Data Book - DFID's Poverty and the Environment: Measuring the Links A Study of Poverty-Environment Indicators with Case Studies from Nepal, Nicaragua and Uganda - World Bank, Poverty-Environment Indicators - IISD, global directory of indicator initiatives, dashboard of sustainability, and Consultative Group on Sustainable Development Indicators - Dashboard of Sustainability - Environmental Sustainability Index - OECD, Environmental Indicators: Towards Sustainable Development, 2001 - NRTEE, A proposed approach to environment and sustainable development indicators based on capital - Global Footprint Networkhttp://www.undp.org/fssd/sustdevmdg.htm - top#top - OECD's Key Environmental Indicators 2004 and OECD Environmental Data Compendium 2002 - www.global_mechanism.org/dynamics/file/GM_ICTSD
Values of drylands	This type of information shows the different uses of drylands and how they can be maintained.	<ul style="list-style-type: none"> - http://www.iied.org/NR/drylands/index.html - http://www.iucn.org/themes/cem/ecosystems/drylands/index.html - http://earthtrends.wri.org/features/view_features.php?themes - http://www.iucn.org/wisp/drylands.html - http://www.wri.org/biodiv/pubs_content_text - http://www.iucn.org/themes/pbia/documents/positionpaper/drylands

Category	Type of information	Information links
<p>Mainstreaming guidelines and tools</p>	<p>These sources of information give examples of guidelines for integration, and emerging good practices of drylands management. There are different tools that can be used for integration of drylands into development programmes, e.g. SEA, SLM and other decision-making processes.</p>	<ul style="list-style-type: none"> - African Development Bank (ADB), United Nations Inter-Agency Secretariat for International Strategy for Disaster Reduction (UN/ISDR Africa), New Partnership for African Development (NEPAD) and African Union (AU) [2004]: Guidelines for Mainstreaming Disaster Risk Assessment in Development. http://www.unisdr.org/africa/af-hfa/docs/africa-guidelines-mainstreaming-dr-assessment-development.pdf - Asian Development Bank [2003]: Environmental Assessment Guidelines. http://www.adb.org/Documents/Guidelines/Environmental_Assessment/default.asp - Organisation for Economic Co-operation and Development (OECD) [2006]: <i>Good Practice Guidance on Applying Strategic Environmental Assessment (SEA) in Development Cooperation</i>. www.oecd.org/dac/guidelines http://www.environmentintegration.org/Download/D121_StrategicEnvironmentAnalysis/Guidance_on_Applying_SEA_in_Development_Co-operation.pdf - Hay, E. and Sablan-Zebedy, E. [2005]: Regional: Mainstreaming Environmental Considerations in Economic and Development Planning Processes in Selected Member Countries. Asian Development Bank Technical Assistance Consultant's Report prepared for the Asian Development Bank. http://www.adb.org/Documents/Reports/Consultant/38031-RMI-TACR.pdf - European Commission [2007]: <i>Environmental Integration Handbook for EC Development Cooperation</i>. [English, French and Spanish] http://www.environment-integration.org/EN/index.php - Seymour, F., Maurer, C. and Quiroga, R. [2005]: Environmental Mainstreaming: Application in the context of Modernisation of the State, Social Development, Competitiveness and Regional Integration. Inter-American Development Bank. http://www.iadb.org/sds/env/site_393_e.htm - IDS (2006) Mainstreaming climate change adaptation in developing countries. http://www.tearfund.org/webdocs/website/Campaigning/Policy%20and%20research

Category	Type of information	Information links
		<p>h/Overcoming/</p> <ul style="list-style-type: none"> - Imperial College Consultants Ltd. [2001] <i>SEA and Integration of the Environment into strategic Decision-making. A Report for the European Commission.</i> http://ec.europa.eu/environment/eia/sea-studies-and-reports/sea_integration_main.pdf - Organisation for Economic Co-operation and Development (OECD) [2002]: <i>The DAC Guidelines: Integrating Rio Conventions into Development Cooperation.</i> www.oecd.org/dac/guidelines - Countryside Council for Wales, English Nature, Environment Agency, Royal Society for the Protection of Birds [2004]: <i>Strategic Environmental Assessment and Biodiversity Guidance for Practitioners.</i> http://www.english-nature.org.uk/pubs/publication/PDF/SEAbiodiversityGuide.pdf - World Bank [2005a] Integrating Environmental Considerations on Policy Formulation: Lessons from Policy-Based SEA Experience. http://www.conam.gob.pe/documentos/evaluacion/SEA_WB_.pdf
Mainstreaming guidelines and tools		<ul style="list-style-type: none"> - World Bank [2005b] Integrating Environmental Considerations on Policy Formulation: Lessons from Policy-Based SEA Experience http://www.conam.gob.pe/documentos/evaluacion/SEA_WB_.pdf - www.unccd.int/cop/reports/un/2002/undp - www.practicalaction.org/docs/advocacy/gbf15_statement.pdf - www.unbotswana.org/bw/undp/environment - www.iisd.ca/publications_resources/forests_deserts_land.html - www.worldbank.org/drylands - Integration of Drylands issues into country Assistance Strategies: A Review : http://lnweb18.worldbank.org/ESSD/ardex.nsf/17ByDocName - http://www.informaworld.com/smpp/content - http://lnweb18.worldbank.org/ESSD/ardex.nsf/17BDocName/Good Practices in

Category	Type of information	Information links
		<p>drylands Management/\$FILE/pdf</p> <ul style="list-style-type: none"> - http://www.igLtd.com/resources/publication/Africa/2003-06%20mainstreaming - ftp://ftp.fao.org/docrep/fao/005/j0086e00.pdf - https://siteresources.worldbank.org/SOCIAL_ANALYSIS - www.iucn.com - www.oecd.org - www.seataskteam.net - www.threshold21.com - http://www.gwbweb.wust.edu/csd/publications/1995/IDA_Evaluation_Hand - Book. PDF - http://www.iisd.org/cas/ICASL_Guide/Participant_Observer.htm - Tools for development: A handbook for those engaged in Development Activity (http://www.dfid.gov.uk/pubs/files/tools_for_development.PDF) - www.odi.org.uk
<p>Countries delivery on MDGs</p>	<p><u>Millennium Development Goals</u> (MDGs) provide new impetus for monitoring country progress towards ensuring environmental sustainability, a task that has proven to be challenging for most countries. Poverty as a direct result of environmental degradation has been identified as a major obstacle towards achieving the MDGs.</p>	<ul style="list-style-type: none"> - Millennium Project Task Force Reports <ul style="list-style-type: none"> • Interim Report of Task Force 6 on Ensuring Environmental Sustainability • Interim Report of Task Force 7 on Water and Sanitation • Interim Report of Task Force 8 on Improving the Lives of Slum Dwellers - MDGs and the Environment <ul style="list-style-type: none"> • World Bank, The Environment and the Millennium Development Goals - MDGs and PRSPs <ul style="list-style-type: none"> • World Bank's Poverty Reduction Strategies and the Millennium Development Goal on Environmental Sustainability: Opportunities for Alignment - MDGs and Energy <ul style="list-style-type: none"> • DFID, Energy for the Poor: Underpinning the Millennium Development Goals - MDGs and Biodiversity <ul style="list-style-type: none"> • IISD May 2003, Summary Report from the '2010 – The Global Biodiversity Challenge'

Category	Type of information	Information links
		<ul style="list-style-type: none"> • UNEP, Implementation of the Strategic Plan: Evaluation of Progress towards the 2010 Biodiversity Target: Development of Specific Targets, Indicators and a Reporting Framework. - MDGs and Water <ul style="list-style-type: none"> • UNDP, Water Governance for Poverty Reduction: Key Issues and the UNDP Response to the Millennium Development Goals - UNDG, Reporting on the Millennium Development Goals at the Country Level: Guidance Note, 2003 - MDG (Achieving the Millennium Development goals in the drylands: Gender considerations: http://www.lclrc.org/content/wo508.pdf) - www.yale.edu/esi/ESI2005_Main_Report.pdf - Advancing Resources Management using Ecological Foot Print Analysis for problem formulation, policy development and communication. - http://ec.europa.eu/environment/enveco/waste/pdf/wackernagel.pdf

Annex 10 Countries' contributions to learning on drylands and environment mainstreaming

Country	Provided lessons on mainstreaming drylands specifically	Provided lessons on mainstreaming environment generally	Provided lessons on mainstreaming environment into PRSPs	Provided action plan(s) to mainstream environment
1. Argentina	✓			
2. Bangladesh		✓		
3. Barbados		✓		
4. Benin	✓			
5. Bolivia	✓			
6. Burkina Faso	✓			
7. China	✓			
8. Ethiopia	✓			
9. Ghana	✓			
10. India	✓			
11. Kenya	✓			
12. Mali	✓			
13. Morocco	✓			
14. Mozambique				✓
15. Namibia	✓			
16. Niger			✓	
17. Rwanda			✓	
18. Samoa		✓		
19. Tanzania			✓	
20. Tunisia	✓			
21. Uganda	✓			

Annex 11 Various types of projects supported by donors in drylands

Country	Title of project	Years	Partners
1. Argentina	Supported selection of indicators for decision-making on desertification		German Technical Cooperation
2. Argentina	Supported market access for sheep from drylands		German Technical Cooperation
3. Argentina (with Brazil and Chile)	Supported the development of indicators of socio-economic impact of desertification and land degradation	1999	Economic Commission for Latin America and the Caribbean (CEPAC)
4. China	Funded the preparation and implementation of The Loess Plateau Watershed Rehabilitation Project, worth \$150 million	1994–2002	IDA WB
5. Ethiopia	Environment and Sustainable Development Programme	2003–2006	UNDP
6. Ethiopia	To oversee donor coordination and cooperation in the implementation of UNCCD-NAP (p. 45)		Norway, UNDP
7. Ghana	To oversee that donor support actions to combat desertification are undertaken in a coordinated manner (p. 20)		Government of Canada (<i>Chef de file</i>)
8. Ghana	To undertake SEA of Ghana's PRSP	2002– 2004	Netherlands Government
9. Ghana	To train local governments and NGOs in the application of the SEA's sustainability test to the Medium Term Development Plan, with assistance of EPA Drylands Team and SEA Team		United Nations Development Cooperation Cycle (UNGCC), Danish International Development Agency (DANIDA), UNDP
10. India	Supported Comprehensive Watershed Development Project, M.P.	1997–2002	DANIDA
11. Kenya	SLM project worth \$50 million		WB-GEF

Country	Title of project	Years	Partners
12. Mali	Environment Support Programme in the Combat Against Desertification		UNDP WB
13. Mauritania, Mali, Kenya, Uganda, Rwanda, Tanzania, Mozambique	Poverty-Environment Initiative (PEI)		Norway, Belgium and Sweden
14. Morocco	Capacity Building Programme on Sustainable Development	2003–2005	UN
15. Morocco	Capacity Building in Sustainable Energy and Environment		UNGCC
16. Morocco	Support for the establishment of Environmental Fund for pollution abatement with € 25 million		Germany
17. Mozambique	To develop the technical capacity for the integration of the environmental components into several development plans and programmes		Denmark, UNDP
18. Namibia	Country Pilot Partnership for Integrated Sustainable Land Management (CPP-ISLM), worth \$10 million		UNDP-GEF

Annex 12a Percentage of population below the poverty line

Period	Argentina	Bangladesh	Barbados	Benin	Bolivia	Burkina	China	Ethiopia	Ghana	India	Kenya	Mali	Morocco	Mozambique	Namibia	Niger	Samoa	Rwanda	Tanzania	Tunisia	Uganda
1990	-	49.8	-	33	62.7	45.3	4.6	44.2	39.5	28.6	42.0	63.8	19	69.4	-	63.02	-	51.0	35.7	7.6	55.0
2005	31.4	45	-	33	64	45	10	38.7	31.4	25	50	64	19	70	-	63	-	60	36	7.4	35

Annex 12b Human Development Index

Period	Argentina	Bangladesh	Barbados	Benin	Bolivia	Burkina	China	Ethiopia	Ghana	India	Kenya	Mali	Morocco	Mozambique	Namibia	Niger	Samoa	Rwanda	Tanzania	Tunisia	Uganda
2001	0.849	0.5028	0.881	0.412	0.670	0.330	0.721	0.359	0.567	0.590	0.489	0.337	0.606	0.356	0.627	0.292	0.775	0.422	0.400	0.740	0.489
2005	0.863	0.5309	0.878	0.428	0.692	0.342	0.768	0.371	0.532	0.611	0.491	0.338	0.640	0.390	0.626	0.311	0.778	0.450	0.430	0.760	0.502

Annex 12c Environmental Sustainability Index

Period	Argentina	Bangladesh	Barbados	Benin	Bolivia	Burkina	China	Ethiopia	Ghana	India	Kenya	Mali	Morocco	Mozambique	Namibia	Niger	Samoa	Rwanda	Tanzania	Tunisia	Uganda
2000	61.5	46.7	-	45.5	59.5	44.2	37.8	40.9	49.8	41.0	45.8	46.9	51.1	50.9	57.5	39.3	-	40.2	47.7	50.2	48.3
2005	62.7	44.1	-	47.5	59.5	45.7	38.6	37.9	52.8	45.2	45.3	53.7	44.8	44.8	56.7	45.0	-	44.8	50.3	51.8	51.3

Target and Indicator	Period	Argentina	Bangladesh	Barbados	Benin	Bolivia	Burkina Faso	China	Ethiopia	Ghana	India	Kenya	Mali	Morocco	Mozambique	Namibia	Niger	Rwanda	Samoa	Tanzania	Tunisia	Uganda
chlorofluorocarbons (CFCs), (OPD tons)	2001	66	805	12	54	77	20	33,923	39	36	5,614	169	29	435	14	24	29	-	2	131	570	13
Target 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and sanitation																						
Urban population of households with sustainable access to an improved water source (%)	1990	97	99	-	-	91	-	99	80	85	88	91	65	94	-	98	65	-	-	76	91	81
	2000	-	99	100	74	95	66	94	81	91	95	88	74	98	81	100	70	60	95	90	92	80
Rural population of households with sustainable access to an improved water source (%)	1990	73	93	-	-	47	-	60	17	36	61	31	52	58	-	63	51	-	-	28	54	40
	2000	-	97	100	55	64	37	66	12	62	79	42	61	56	41	67	56	40	100	57	58	47
Urban population with access to improved sanitation (%)	1990	87	81	-	46	73	-	56	24	56	44	91	95	88	-	84	71	-	-	84	96	-
	2000	-	71	100	46	86	39	69	33	74	61	96	93	86	68	96	79	12	95	99	96	93

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