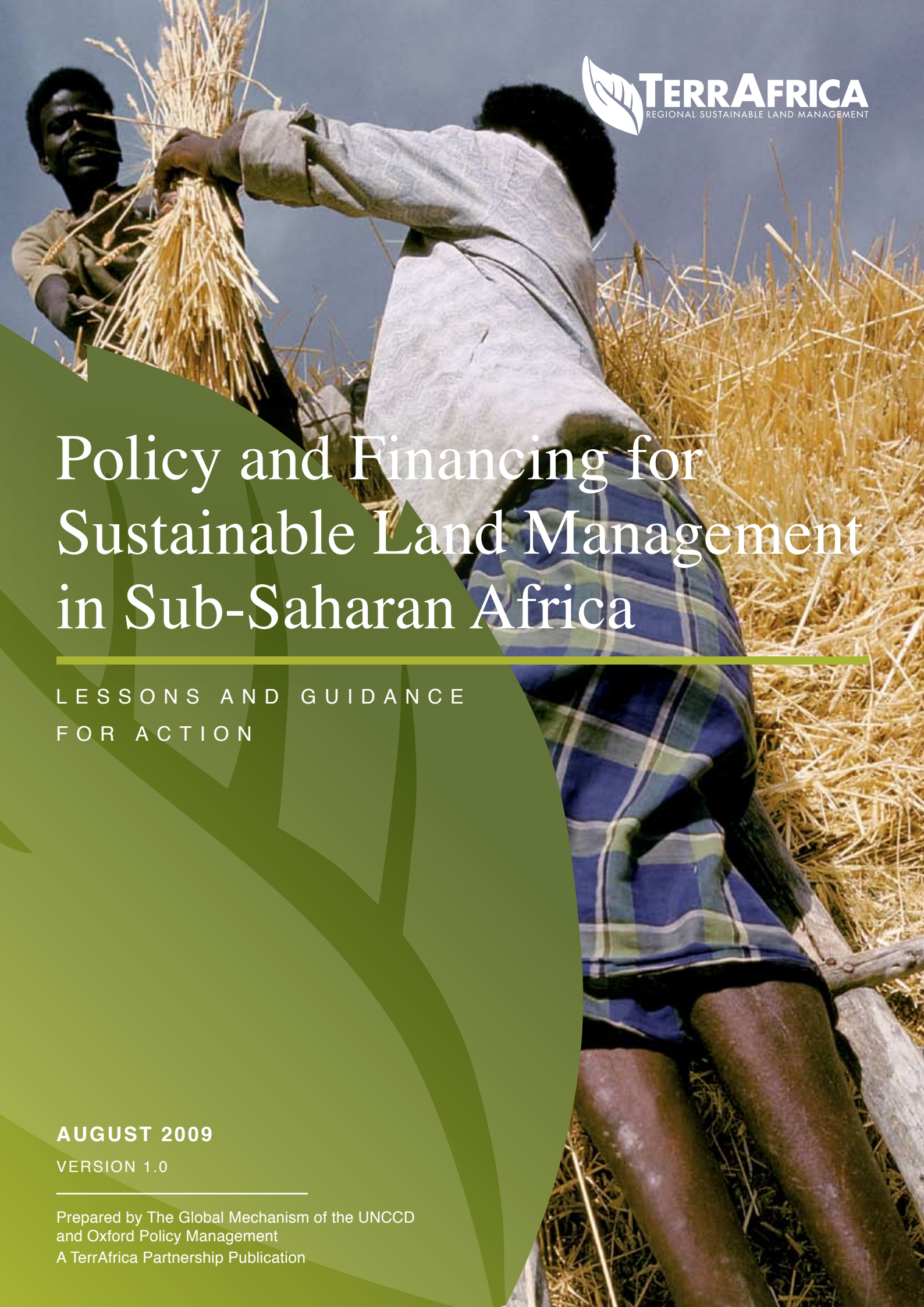

TERRAFRICA
REGIONAL SUSTAINABLE LAND MANAGEMENT

Policy and Financing for Sustainable Land Management in Sub-Saharan Africa

LESSONS AND GUIDANCE FOR ACTION

AUGUST 2009

VERSION 1.0

Prepared by The Global Mechanism of the UNCCD
and Oxford Policy Management
A TerrAfrica Partnership Publication

PREFACE AND ACKNOWLEDGEMENTS

TerrAfrica was launched in 2005 with the aim of increasing the scale, efficiency and effectiveness of investments in sustainable land management (SLM) in Sub-Saharan Africa. TerrAfrica is a regional initiative and a multi-partner platform that seeks to provide an enabling framework for action in support of the mission to scale up the mainstreaming and financing of effective and efficient country-driven SLM approaches. It is recognised that the provision of advisory services to partner countries needs to be supported by robust financial and policy analyses of thematic and strategic issues and linkages of relevance for SLM and UNCCD implementation, in order to facilitate multi-stakeholder engagement and the identification of opportunities for accessing and/or mobilizing available sources of financing.

The paper presents a synthesis of two sets of papers prepared by the Global Mechanism (GM) and FAO for TerrAfrica. The first of these (prepared by the Global Mechanism) is:

- Policy and Financing for Sustainable Land Management in Africa: The Challenge, Lessons from Experience and Guidance for Action [GM Guidance Paper]

This is itself based on two background reports:

- A comparison of experience with SLM policy and financing based on case studies of five African countries (Burkina Faso, Ethiopia, Ghana, Mozambique, and Uganda) [GM Comparative Review], and
- A review of Financing Sources for SLM in Africa [GM Financing Review].

The second set of papers was prepared for TerrAfrica by FAO:

- Policies for Scaling Up Sustainable Land Management: A Resource Guide for Policymakers, produced in the TerrAfrica Guidelines Series [FAO Policy Resource Guide].
- Financing Issues for Scaling up SLM: A Resource Guide for In Country Teams [FAO Financing Resource Guide].

The FAO Financing Resource Guide also drew on a background paper on Ghana's experience [Ghana Financing Case Study].

The publication is developed under the umbrella of the TerrAfrica Country Support Tool, which provides operational guidance to country teams to build or customise program-based approaches to upscaling SLM.

Thanks are due to the government and donor officials and others who contributed time and information during the field visits, as well as to staff of the Global Mechanism, FAO and the World Bank who provided access to information and key documents, and comments on earlier drafts of this paper. This report was prepared by Stephen Jones of Oxford Policy Management (OPM) and draws on material prepared by OPM for the Global Mechanism and by FAO from the studies referred to in the Preface. Full references and citations for this material are to be found in the original studies.

The findings, conclusions and views presented are the consultant's alone, and should not be attributed to TerrAfrica, the Global Mechanism of the UNCCD, FAO, or to any other agency.

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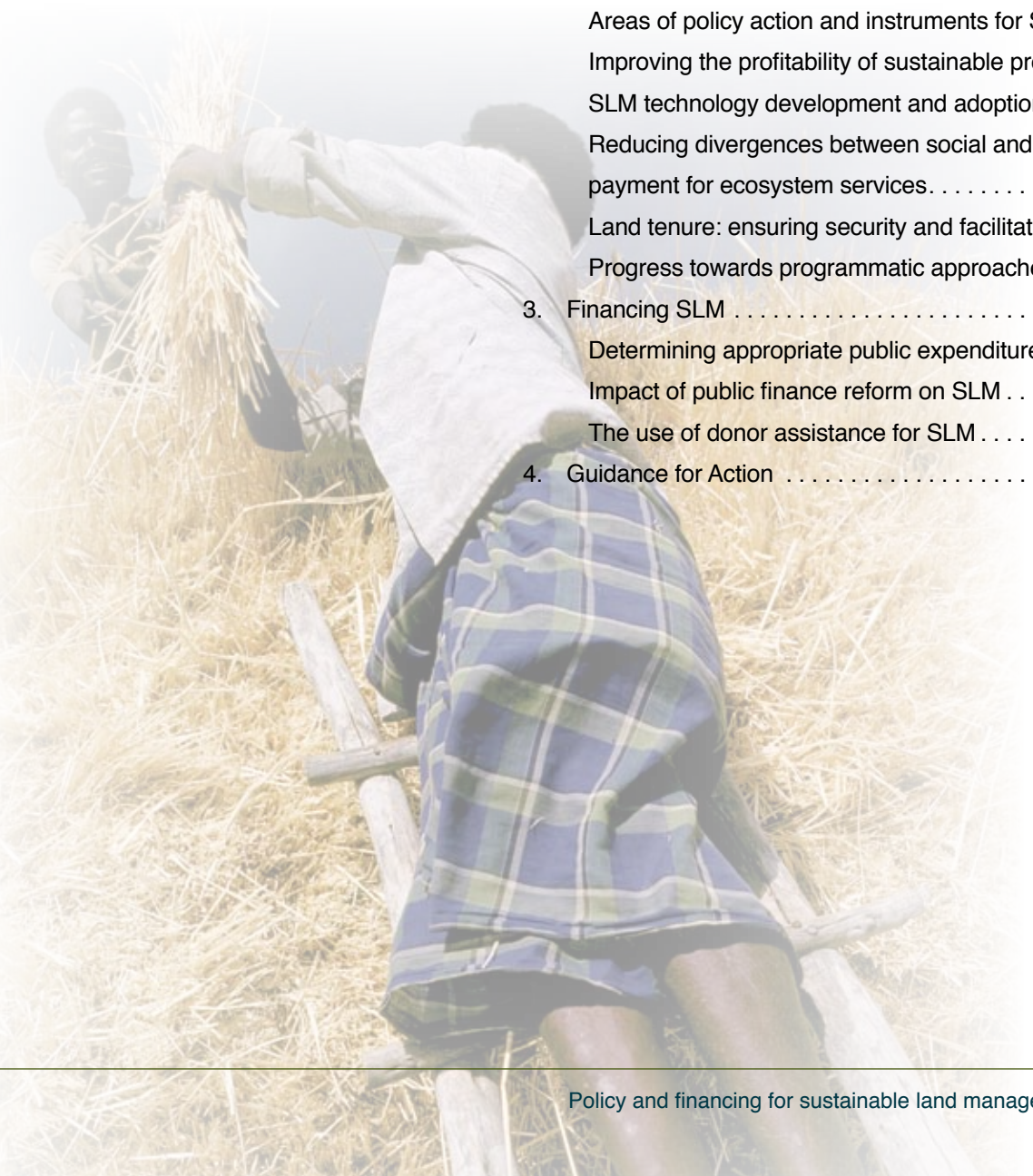

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ABBREVIATIONS

CDM	Clean Development Mechanism
CSIF	Country Strategic Investment Framework for SLM
CSO	Civil Society Organisation
CVGT	Village Land Management Commission (Burkina Faso)
DPSIR	Driving Force, Pressure, State, Impact, Response
FAO	United Nations Food and Agriculture Organisation
GDP	Gross Domestic Product
GEF	Global Environment Fund
IDA	International Development Association
NGO	Non Government Organisation
NRM	Natural Resource Management
OPM	Oxford Policy Management
PBA	Programme Based Approach
PER	Public Expenditure Review
PES	Payment for Ecosystem Services
PFM	Public Finance Management
PNGT	National Land Management Programme (Burkina Faso)
SLM	Sustainable Land Management
SSA	Sub Saharan Africa
SWAp	Sector Wide Approach
SWC	Soil and Water Conservation
UNCCD	United Nations Convention on Combating Desertification
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollars

EXECUTIVE SUMMARY

Sustainable Land Management (SLM) is at the centre of Africa's development challenge. Land degradation impedes agricultural growth, increases poverty and vulnerability, and contributes to social tensions as well as threatening biodiversity and the release of carbon through deforestation.

The specific challenges to SLM faced across Africa are very diverse. The common pattern is a long record of concerns about environmental sustainability and relatively unsuccessful interventions often in the past based on coercive and regulatory approaches. The importance of SLM is increasingly recognised in national development plans and poverty reduction strategies prepared by African governments but this recognition has in many cases not yet been translated into effective policies or programmes. There is a strong body of evidence about how farming practices and land management can be improved so as to halt or reverse land degradation.

The dominance of land as a source of wealth in African economies makes land policy especially politically sensitive and effective policies need to be based on an understanding of the political economy context. The interaction between drivers of change, different forms of capital, institutional arrangements and the actions of stakeholders affecting SLM is complex and an understanding of the factors influencing the incentives of key stakeholders is also required, particularly the way in which private incentives may diverge from what is socially desirable. Effective policies for SLM need to be based on a good understanding of the SLM challenge in a particular context.

Estimates of the economic costs of land degradation where these are available are large in relation both to macroeconomic growth performance and poverty impact. However policies aimed at promoting SLM have generally not been based on an explicit diagnosis of the causes of divergence between private incentives and social returns. Successful initiatives to promote SLM have used participatory approaches, responded to local perceptions of priorities, had adequate government and civil society backing and promoted technical packages with low risk and strong economic incentives. Building capacity to implement at local level is a necessary condition for scaling up SLM.

Four main areas of policy action are required to support SLM:

- The first is improving profitability of sustainable production. This depends on the quality of the broader enabling environment that supports economic activity and rural development. Opportunities exist to obtain premium prices for products that are produced in environmentally sustainable ways provided effective partnerships between local, national and international stakeholders can be developed and government can provide a supportive policy environment.
- The second is the development and adoption of technologies for SLM. There is a generally weak capacity to develop and disseminate SLM technologies in Africa however there are examples where effective techniques have been developed through an agricultural research effort and then successfully implemented. A strong link is required between farmers, the extension system and agricultural research to develop and disseminate technologies that respond to farmer need. Designing and implementing effective and well targeted fertilizer subsidy policies presents significant challenges. Even if such subsidies distort incentives to use other practices while the adoption of organic fertility management practices faces a number of constraints.

- The third area focuses on reducing divergences between social and private costs. There has been increasing interest in payment for environmental services (PES). There is a large potential for PES involving both public and private buyers and sellers in SSA but this has yet to be exploited to any significant extent. The international architecture of carbon finance has been poorly adapted to the needs of the poorest and institutionally weakest countries. However some important initiatives are being undertaken with PES in Africa.
- The fourth area is land tenure. Many SLM practices involve long-term investments that require greater tenure security for widespread adoption. Land policies need to effectively accommodate customary land tenure into national legislation while improving the ability of women to own land within formal and customary systems where they often lack rights can have a significant impact on SLM. In many countries land registration has achieved limited progress due to weak capacity to conduct cadastral surveys but formal land titling is not the only instrument for improving tenure systems. There are now successful models of very low cost and participatory systems for recording land rights. Effective ways of making land management systems accountable and protective of land rights for the poor need to be found.

Overcoming the problems of piecemeal projects and lack of effective coordination requires a move towards a more programmatic approach to SLM in line with the principles of the Paris Declaration. Implementing a programmatic approach for SLM faces the particular challenge of involving multiple public agencies as well as depending on influencing private behaviour. Weak

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coordination and integration may also be a symptom of limited political commitment rather than itself being a cause of failure of effective implementation. Success in moving towards a more programmatic approach to SLM fundamentally requires government leadership.

There is evidence of a large gap between current levels of public expenditure on SLM and the level of expenditure that would be justified based on likely economic returns. A central issue is the appropriate role of the state in funding improvements in farming practice and associated investments where many of these should be privately profitable. Increasing the provision of public resources for SLM in the context of PFM reform requires effective advocacy and engagement with the budget process. To date, SLM initiatives have remained heavily dependent on donor funding and transfers from central government. There has also been little experience to date with non-project forms of donor support to SLM. However, it is not the mode of donor support that is the main determinant of

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success but whether particular initiatives are integrated within a coherent overall planning and financing framework for SLM that enjoys high level support.

The actions proposed for African governments are:

- Substantial strengthening of the information and evidence base on the scale and determinants of land degradation and climate risks, their economic and other costs, and the benefits of SLM practices.
- Policies and institutions that ensure security of land tenure for the poorest and most marginalised farmers while providing flexibility to enable land to be used productively and sustainably by those with the resources to do so.
- Ensuring that the public and donor resources provided to address the problems of land degradation are proportional to what the evidence suggests about the scale of its impact on poverty and economic performance.
- Mainstreaming SLM into the budget and planning process at each level of government in a way that focuses resources and efforts across sectors on agreed SLM objectives.
- The effective development of local level capacity to support SLM, and the channelling of resources to be used at the local level.
- Work with stakeholder groups to explore the potential for PES and the government action necessary to facilitate the development of PES markets while lobbying in international forums for the development of more suitable funding instruments.

The key actions for Africa's development partners are:

- Ensuring that resources are provided in support of SLM programmes in line with agreed priorities and that a proliferation of overlapping and parallel processes is avoided, while programme based support should be designed to reduce transactions costs and to build capacity within government.
- Actions based on a clear understanding of the political context and the political economy of the process by which policies relating to land are formulated and (most importantly) implemented.
- Provision of support to processes that strengthen national budget and planning systems and the alignment of aid on agreed strategies and through the use of government systems.
- International action to develop more relevant and accessible sources of funding for both greenhouse gas mitigation and climate change adaptation.

INTRODUCTION AND FRAMEWORK

Sustainable land management[1] (SLM) is at the centre of Africa's development challenge. Land represents one of Africa's most important resources and one on which the livelihoods of the poor are critically dependent. Land degradation impedes agricultural growth, increases poverty and vulnerability, and contributes to social tensions as populations rise and impose greater burdens on limited natural resources. Unsustainable land management practices can threaten biodiversity and increase the release of carbon especially through the destruction of forests as well as impacting adversely on water resource management. On the other hand, improving the sustainability of land management presents opportunities for enhancing the livelihoods of the poor and fostering inclusive growth as well as for achieving environmental goals.

This paper presents guidance for action to achieve SLM in Africa for African governments and their development partners. It provides an overview of the key issues to be addressed and emerging lessons from experience. The remainder of this section discusses the elements of the SLM challenge in more detail, and sets out a framework for understanding the influences on the actions of stakeholders which affect SLM and the divergence between private and social incentives for SLM. Section 2 discusses lessons from experience in the design and implementation of policies to promote SLM. Section 3 focuses on lessons for the financing of SLM. Section 4 sets out guidance for action.

Dimensions of the SLM challenge

TerrAfrica[2] has highlighted the key economic, ecological and social consequences of land degradation in Africa:

- Land degradation affecting about 20% of the land area in Sub-Saharan Africa (SSA) though with very high variation between countries and regions.
- Soil moisture stress affecting 86% of African soils with a negative nutrient balance on SSA's croplands.
- Direct economic losses of around 3% of agricultural GDP are attributable to soil and nutrient loss.
- SSA has some of the highest rates of deforestation in the world, combined with a heavy dependence on forest resources to provide fuel.
- Increasing vulnerability to droughts, flood, famine and conflict over land and water resources in a context where 73% of the rural poor live on marginal land.

TerrAfrica has also emphasised that **the specific challenges of SLM faced across Africa are very diverse** and are not amenable to blueprint solutions. Box 1.1 summarises barriers to SLM identified by TerrAfrica.

The common pattern across many African countries is of a long record of concerns about environmental sustainability associated with, in particular, small scale extensive farming practices based on systems of bush fallow and livestock on open ranges. Both colonial and post-colonial regimes tried to influence these practices, often through coercive regulation, with little success.

1 TerrAfrica has defined sustainable land management (SLM) as the adoption of land use systems that, through appropriate management practices, enable land users to maximize the economic and social benefits from land while maintaining or enhancing the ecological support functions of the land resources.

2 TerrAfrica (2008), TerrAfrica - A Vision Paper for Sustainable Land Management in Sub-Saharan Africa, TerrAfrica Knowledge Base.

Subsequently there have been a wide range of project initiatives and programmes to address aspects of SLM which have been supported by aid donors as well as strategies to address environmental and resource management problems.

The importance of SLM has also increasingly been recognised in national development plans and poverty reduction strategies prepared by African governments. However this recognition has in many cases not yet been translated into effective national policies or programmes, or into the prioritisation of SLM either in national budgets or for donor support. Box 1.2 sets out the shifts in emphasis in policy making and implementation that are required to achieve SLM and to overcome the failures of past policy initiatives.

Box 1.1 Barriers to SLM in Africa

1. Knowledge and Technological Barriers

(a) Inadequate knowledge transfer and management
(b) Knowledge gaps on specific LD and SLM issues
(c) Compartmental approach of many SLM programmes and knowledge management systems
(d) Inadequate Monitoring and Evaluation of LD and its impacts
(e) Lack of local-level capacities and experience with SLM, including farmers, communities and local extension officers and NGOs

2. Institutional and Policy Barriers

(f) Lack of on-the-ground implementation
(g) Lack of coordination and collaboration between stakeholders, including government agencies and the donor community
(h) Lack of policy harmonisation and mainstreaming of SLM in expenditure frameworks
(i) Slow and ineffective decentralisation
(j) Inappropriate incentive structure, in particular land tenure arrangements

3. Economic and Financial Barriers

(k) Inappropriate domestic economic policies including pricing policies
(l) Trade distortion and barriers
(m) Poverty and general lack of resources and investment opportunities
(n) Lack of credit facilities

Source: TerrAfrica (2007), Assessment of the Barriers and Bottlenecks to Scaling-Up Sustainable Land Management Investments throughout Sub Saharan Africa, TerrAfrica Knowledge Base

There is a strong body of evidence about how farming practices and land management in different contexts can be improved so as to halt and reverse land degradation. The challenge is therefore how to scale up from successful but often fragmented and localised initiatives to programmes that are fully integrated within national and sectoral development plans and budgets and hence are both institutionally and financially sustainable. Addressing this challenge requires effective coordination across sectors and levels of government, engagement of a wide range of stakeholders, and effective political

Box 1.2 Shifts in emphasis needed to achieve SLM

From multiple policies that are both contradictory and addressing only symptoms of land degradation.	**To** effective cross-sectoral policy analysis and design that result in transformative policies that both address root causes of land degradation and result in win-win solutions
From a national strategy policy, legislative and development planning environment in which SLM is inadequately addressed and funded.	**To** SLM mainstreamed within and across national strategies and sectoral policies, laws/regulations on agriculture, trade, market, research, and land tenure, public expenditure frame-works, and across development agencies for successful development strategies and programmes.
From inadequate and contradictory economic and pricing policies that discourage investment in SLM by financial investments.	**To** the rapid development of enabling innovative financial incentives, including mini-grants and other market mechanisms that facilitate and encourage private investment in on-the-ground SLM.
From an inadequate and poorly enforced legal and regulatory environment for SLM and land degradation control.	**To** a revised body of incentive oriented legislation containing the essential legal and institutional elements needed to recognise ecological problems and opportunities, develop effective land and ecosystem management programmes and targets, and establish socially acceptable mechanisms for their enforcement.
From rural households with weak and insecure long term user rights for their individual farm plots and communal forests and rangelands unwilling to invest in SLM.	**To** locally negotiated regulations, tenure systems, land use plans, and household user rights, governing the use of local soil, vegetation, water and biodiversity resources and which provide users with the security and other resources needed to make long term invests in restoring, sustaining and enhancing ecosystem productivity.

Source: FAO Policy Resource Guide (from TerrAfrica, op. cit. 2008)

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leadership. It also confronts substantial problems of capacity and organisational weakness particularly at sub-national and local level. However, most fundamentally it requires political commitment and the willingness of governments to commit resources and undertake policy and institutional reforms. The challenge is not essentially a technical one, since the technical solutions for SLM are generally well understood across a range of farming systems and agro-ecological conditions. It is fundamentally a political challenge that requires political solutions.

The dominance of land as a source of wealth in African economies (including through control of forest and mineral resources) makes land policy especially politically sensitive. National and local elites (often working with or using alliances with international investors) sometimes have an incentive to manipulate the land system to secure control of land resources, which can be at the expense of the poor and politically marginal. The recent boom in world prices for agricultural products (including interest in securing large tracts of land for biofuel production) and Africa's relatively strong overall recent economic growth performance have raised the economic value of land. This has tended to intensify conflicts over land resources that were already severe as a result of population pressure, migration, and in some cases ongoing insecurity and violent conflict.

Effective policies to promote SLM therefore need to be based on an understanding of the political economy context since this is likely to influence the priority accorded to action by governments, how in practice programmes can be implemented (especially where they confront strong vested interests), and how effective engagement with stakeholders can be achieved.

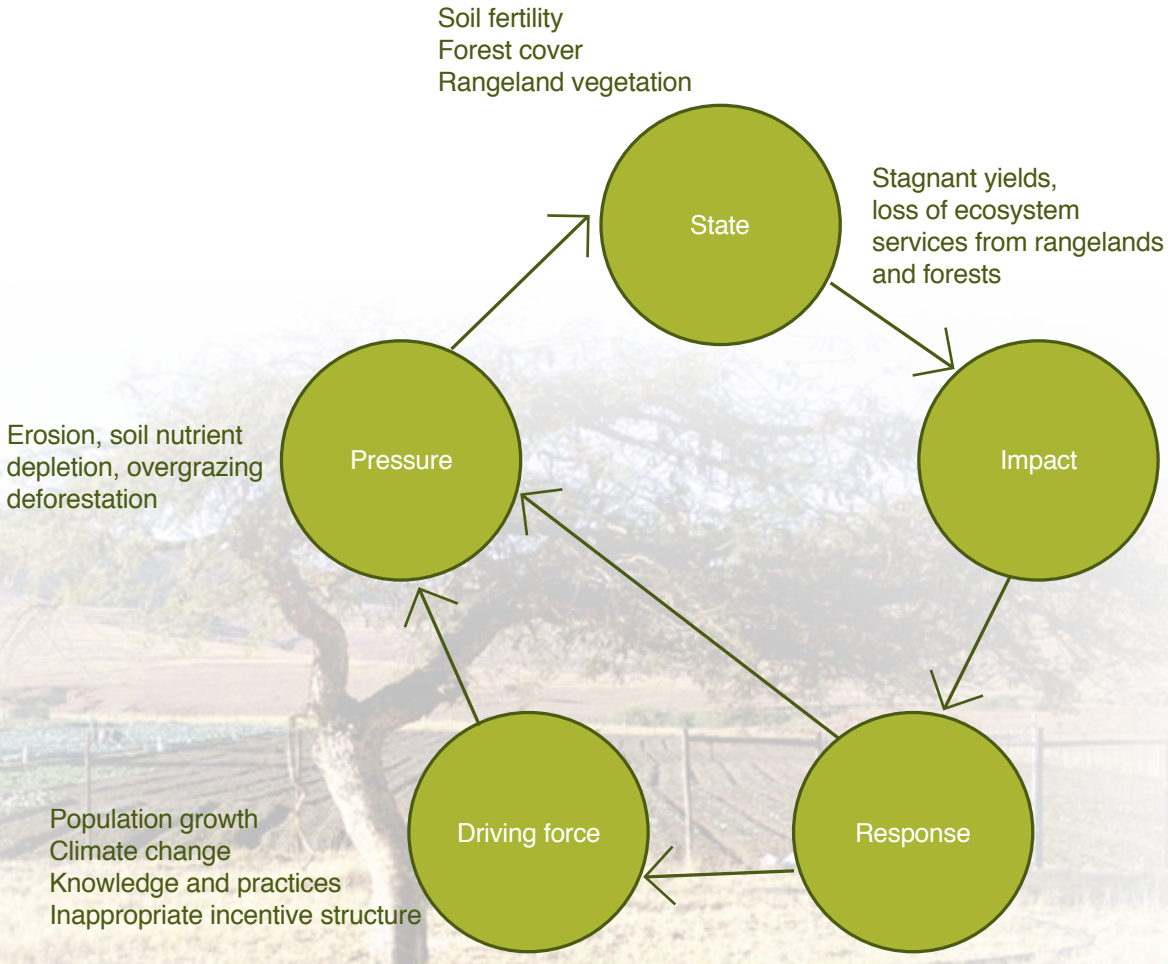
Framework for analysing factors affecting SLM

An increasingly widely used approach to the analysis of environmental issues is the DPSIR framework which analyses the causal links between Driving forces of environmental change, Pressures on the environment, the State of the environment, Impacts on population, economy and ecosystems, and the Response of the society. While this approach has value as a starting point for analysis (as in Figure 1.1), the discussion above suggests that examining SLM issues in Africa will need to be supplemented by a more detailed understanding of the influence of the institutional context and the resources available (in terms of different forms of capital) to determine how an effective policy response can be made.

Table 1.1 provides a (selective) characterisation of drivers of change, forms of capital, institutions and agents that are likely to be relevant to determining

the sustainability of land management practices, and for the design and implementation of effective policies to promote SLM. Key structural drivers on land systems are likely to include population increase and demand for agricultural products (understood broadly to include those related to the use of forestry and other land based resources), while capacity to respond to these pressures will be influenced by the stock of knowledge, financial resources and infrastructure available at each level. With respect to institutions, local market and land management arrangements operate within a national legal and administrative context. Agents are stakeholders in the land management system to the extent that they have either an interest in its operation, or have influence over the way in which institutional arrangements work.

Figure 1.1 DPSIR analysis of land degradation in Africa



Source: TerrAfrica, op. cit. (2007)

Table 1.1 Influences on SLM

	Drivers of Change	**Capital**	**Institutions** (Frameworks of rules - formal and informal)	**Agents/ Stakeholders** (Individuals and organisations)
Global	Population increase World agricultural demand Climate Change	Stock of international knowledge on land management	International markets and trading arrangements International property rights regimes (applying to agricultural technologies)	Multinational companies Donor agencies International research organisations
National	Population increase/ migration Export and national agricultural demand	National human capital National infrastructure National stock of wealth (financial)	National legal and administrative system (including specifically for land) National market systems National public finance system	National ministries and government agencies Appointed officials Elected officials Judicial officials Absentee landowners Political parties National private sector National agricultural research organisations
Sub national	Population increase/ migration Sub-national agricultural demand	Sub national human capital Sub national infrastructure Sub national stock of wealth (financial)	Sub national land arrangements Sub national public finance system	Provincial/district administration, judicial and elected officials Provincial/district agricultural service providers
Local	Population increase/ migration Local agricultural demand	Human capital (including knowledge of locally relevant land management practices) Local infrastructure Local stock of wealth (financial) Land resources (including forestry, water, minerals)	Local (customary) land arrangements and practices, including land markets Local public finance system Local market arrange-ments (including for credit)	Traditional leaders with authority over land and dispute settlement Landowners Farmers (tenant or landholder) Agricultural labourers Purchasers of outputs Suppliers of inputs Extension officers Organisations of or representing each of the above at local level

This table emphasises **the complexity of the potential influences on the ultimate behaviour of land users and hence the impact on the land resources that they use.** The relevance of higher levels of drivers, institutions and agents to local land systems will depend on the transmission mechanisms between them (influenced in particular by transport and communications infrastructure). For instance, improved infrastructure may facilitate access to wider national and international markets or to technical information and inputs, but it may also increase incentives for predatory behaviour by the politically powerful to attempt to assert control over increasingly valuable land resources.

Private and social incentives for SLM

Whether the interplay of the various drivers of change, institutional arrangements, influence and interests leads to sustainable land management practices or to the mining and depletion of these resources depends on how the **incentives** of those using land are affected, as well as the other complementary resources (knowledge, labour power, finance) to which land users have access. A critical element in assessing incentives for sustainable use relates to the **time profile of incentive**s – whether the land user whose current practices affects the future productivity of the land (or of related resources such as water) expects both that there will be profitable uses of the land in future, and that he or she will be able to obtain the value of increased or maintained future productivity where maintaining future productivity involves a current cost to the user.

A first point is **that there can in principle be circumstances where the depletion of land resources may be both individually and socially profitable** – for instance through the extraction of mineral resources whose value exceeds that of the land that is damaged in obtaining them. Natural capital in the form of land (or forest) resources may be converted into other forms of capital that yield higher social returns. However, there are significant reasons for expecting there to be substantial divergence between individual (private) incentives facing land users and the social returns to sustainable land management practices. The causes of this divergence can be classified as follows:

- **A failure of the land management system to internalise benefits and costs of land practices that are external to land users**, such as the effects of land management practice in watershed areas on downstream water users, or of deforestation on climate change and biodiversity.
- **A failure of the land management system to provide security of tenure** so as to make SLM practices privately profitable to land users, leading to a shortened time horizon and underinvestment in land improvements for fear that benefits may be appropriated by others.
- **A failure to find ways of achieving effective collective action** between land users to undertake investments and to maintain resource management arrangements that have collective benefits across groups of land users.
- **Failures of related markets** (such as for credit for agricultural producers) and lack of information on market or technological opportunities, for instance on markets for organic produce or for sustainable forest products, or institutional weaknesses that militate against establishing such markets. The inability of farmers to finance potentially profitable investments in land management can be seen as reflecting a failure of the credit market.

It is important to note the distinctions between these situations and their differing policy implications, specifically the way in which market failures and large external effects may create perverse incentives. For example, improving profitability of agricultural production that is expected to be sustained will generally increase incentives (and the resources available to land users) for sustainable land management practices at the individual level by raising the present discounted value of investments in land management. But if there are significant external effects (such as that of land erosion affecting run offs on downstream water users) for which there are no market or other institutional mechanisms to bring the incentives facing land users in line with social benefits and costs, the overall social and environmental impact of improved profitability may be reduced or even negative. Similarly, high profitability of some forms of agricultural production (such as industrial soya production or palm oil plantations) encourages deforestation where market and institutional mechanisms to take account of the costs of destruction of carbon sinks or of biodiversity are weak or non-existent. **High short-term profitability of production in the context of weak and insecure property rights over land** (and specifically of investments made in land improvement) **may create especially strong incentives for mining land resources, while extreme poverty will also encourage a shortening of time horizons for land users**.

EFFECTIVE POLICIES TO ACHIEVE SLM

General lessons for effective policy

Effective policies need to be based on a good understanding of the SLM challenge in a particular context, including the costs associated with land degradation, the causes of failure to use land sustainably, the interests and influence of different stakeholders, and how their actions affect the operation of the institutional arrangements of most significance for land management.

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Estimates of the economic costs of land degradation where these are available are large both in relation to macroeconomic growth performance and poverty impact, since there is evidence that land degradation disproportionately affects the poorest and least empowered farmers on the most marginal land. These estimates are generally of the direct cost in terms of foregone production. There are potentially further costs in terms of external effects that have not generally been quantified. However, the information base for drawing firm conclusions about the precise scale and nature of the costs of land degradation is quite weak even in countries like Ethiopia where considerable prominence has been given to the issue.

Policy initiatives aimed at promoting SLM in the countries covered in the GM Comparative Review **have not generally been based an explicit diagnosis of the causes of divergence between individual incentives facing landholders and social returns**, though each of the factors appears to be significant in some contexts. General conclusions that appear to have some empirical validity are that land tenure insecurity is greatest for the poorest as they lack effective capacity to defend their land rights. This group is also likely to face the greatest problems of failures in related markets, and may also have the weakest institutions for managing common resources, particularly in the aftermath of conflict. This suggests that this group may be caught in a vicious cycle of land degradation and poverty. For the bulk of less marginal agricultural and livestock producers, the causes of land degradation are likely to be more focused on a failure to internalise external effects such as those related to the loss of forest cover.

In all the countries reviewed (to varying degrees) **there is an evidence-based technical understanding of how to address problems of land degradation and what improved and sustainable land management practices involve for the main farming systems** in each country. In Burkina Faso and Ethiopia, for example, there is a strong body of positive experience using small-scale investments and improved practices at individual farm and community level, built up through many years of project-based initiatives, that is envisaged as forming the basis for scaled-up national programmes to address SLM. There has been a general recognition that regulation,

coercion and external enforcement have had little success as instruments for SLM, and there are moves towards more participatory approaches.

A general lesson that emerges is that **successful approaches to SLM have used participatory approaches, responded to local perceptions of priorities, had adequate Government and civil society backing, and promoted technical packages with low risk and strong economic incentives**.

Building capacity to implement SLM at local, sub-regional, regional and national levels **is a necessary condition for successful scaling up of SLM initiatives** while results-based and evidence-informed policy making requires a strengthening of the analytical understanding of incentives and improved information on both environmental and socio-economic factors.

Table 2.1 Typology of areas of action and policy instruments for SLM

	Profitability of sustainable production	Technology development and adoption	Divergence between private and social costs	Land tenure: security and efficient transfer
Taxes and subsidies		Taxes and subsidies to encourage investment and technology adoption	Taxes and subsidies on (agricultural) inputs and outputs to make prices reflect social opportunity costs	Land taxation system (e.g. to discourage land speculation, non-sustainable practices, or to provide finance for land administration systems)
Public investment	Infrastructure	Infrastructure Technology systems (research and extension)		
Legal, regulatory and administrative reforms	Enabling environment for private sector Support for certification and standards for products sourced in sustainable ways	Enabling environment for technology transfer and physical investment	Enabling environment for carbon trading and payment for environmental services Legal reforms to clarify rights in relation to external effects (e.g. downstream water users)	Promoting fair, secure and efficient land management system that minimises rent-seeking opportunities
Organisational capacity development	Strengthening of farmer organisations	Strengthening of organisations managing collective infrastructure and technology systems	Strengthening of watershed user groups and other organisations to encourage internalisation of external effects	Strengthening of public and organisations in land management system

Areas of policy action and instruments for SLM

Table 2.1 sets out a typology of areas of policy action and policy instruments that may be used to promote SLM. Four main areas of policy action can be defined:

- **Improving profitability of sustainable production** – this is necessary for land users to have an incentive to undertake investments and to use management practices that will sustain land productivity rather than mining resources (for short-term profit) or neglecting management if returns to land management are low.
- **Developing capital and technologies for SLM** – physical investments may be required either at the individual farm level (e.g. terracing) or on a much larger scale (e.g. irrigation systems) to promote sustainability. Knowledge of effective technologies for land management and reclamation are also required, as well as systems for disseminating this knowledge, as for learning from farmer practice.
- **Reducing divergence between private and social cost of SLM practices and investments** – as is argued in the previous section, this problem is central to establishing appropriate incentives for SLM, with external effects of different kinds being pervasive in land management practice. These may be particularly significant in relation to the lack of mechanisms for permitting payment for environmental services (PES) including biodiversity, maintaining carbon sinks and landscape protection, and for overall watershed management.
- **Promoting security of land tenure and provision for transfer of land** – the operation of land tenure and administration systems in a way that protects the property rights of those undertaking investments in land improvements or SLM practices, while also facilitating the transfer of land to those who are able and willing to undertake such investments, is of core importance to providing individual incentives for SLM. Land administration systems that are open to manipulation by the politically powerful, or that fail to resolve land disputes fairly and efficiently, are unlikely to promote sustainable practices. Establishing formal systems for registering land ownership and documenting land rights may play an important part in strengthening such a system, but this in itself is not sufficient to ensure its effective operation. There may be a tension between the objective of tenure security (which might be promoted by restricting land transfers to prevent land grabbing) and that of promoting transfer to the most efficient user, or to enabling land holders to raise capital using land as security as a way of financing investments necessary for SLM.

Four main categories of policy instrument are identified:

- **Taxes and subsidies** – in principle taxation and subsidy policies may be used to try to align private and social costs through influencing market prices and hence land user incentives. In practice this approach is problematic in relation to SLM mainly because such approaches (focusing on input or output markets) are unlikely to be well targeted on achieving SLM objectives. Whether the use of particular inputs (such as non-organic fertilisers) or the production of particular products (such as timber) promotes or harms SLM will depend on the context and may vary substantially across land use systems or even land users in the same area (if they have differential degrees of tenure security, for example). Input subsidy policies will tend to disproportionately benefit the large users of purchased inputs who will not typically be those most at risk through unsustainable

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land practices. There may be more scope for subsidising the provision of infrastructure and access to information (which have public goods characteristics), though again it may be difficult to target such subsidies effectively to promote SLM. Well-designed land taxation, however, may play a role in financing land administration systems, discouraging excessive land speculation and encouraging sustainable land use, for instance through providing tax incentives for investments in improved land management. However, a strong tax administration system will be required to implement and manage such taxes.

- **Public investments** – Infrastructure investments will directly affect the profitability of land use (especially through transport, communications, water management and access to power) and the incentives for SLM. Public investment in research and extension is critical to promote the uptake of SLM technologies (such as integrated soil fertility measures or water harvesting) and SLM approaches (such as watershed management or grazing reserves).
- **Legal, regulatory and administrative reforms** – these are likely to be relevant in relation to each of the four types of policy objective defined in Table 2.1. The profitability of sustainable land use will depend on the general environment for private sector operation so as to reduce transactions costs in reaching markets. More specifically, legal and regulatory reforms may be an instrument for facilitating the internalisation of external effects, for example by defining the rights and responsibilities of common resource users (like those in a particular watershed) and setting up mechanisms for dispute resolution and compensation. The establishment of new markets as a way of internalising external effects (in relation to payment for environmental services, including carbon trading) is likely to require a legal and regulatory basis. Land tenure systems require both an appropriate legal and regulatory framework and an effective administrative system to underpin this.
- **Organisational capacity development** – the functioning of the institutional arrangements affecting SLM depends on the capacity of the key stakeholders, particularly acting collectively through organisations promoting a common purpose. Organisations of land users (for instance farmers groups or watershed management associations) can play a key role in improving the management of common resources as well as in promoting joint management and service provision which may reduce transactions costs and increase profitability.

The following sub-sections discuss evidence and lessons from experience in relation to each of these areas of policy action drawing on the FAO resource guide, the GM Comparative Review and other sources where appropriate.

Improving the profitability of sustainable production

A key factor in achieving greater adoption of SLM practices and improving the success of investments that seek to support SLM is the quality of the broader enabling environment that supports economic activity and rural development. **Important elements include rural roads, access to markets, private sector activity in agricultural inputs and output markets, and access to finance. Improvements in infrastructure and market institutions will boost the profitability of agricultural production and of the use of purchased inputs**. This will have the effect of raising the value of land and hence incentives to use it sustainably, provided that the users of land have secure long-term rights particularly so that they can ensure they receive the benefits of investments in land quality that are undertaken. In the absence of such secure rights (or if increased profitability is thought to be temporary) there may be incentives to mine land resources.

In the past, pervasive government intervention in foreign exchange markets, in trade particularly through quantitative controls on imports, and price regulation meant that there were often substantial divergences between prices and the opportunity cost of resources, with a systematic bias against agricultural production (and more specifically against agricultural production for export) applying across most Sub Saharan African countries. These interventions have however in general been eliminated or sharply reduced through the implementation of liberalising macroeconomic reforms. Consequently, in the countries covered in the GM comparative review of experience **it was difficult to identify empirically significant linkages between SLM and macroeconomic and trade policy choices**. While international and regional market developments influence the incentive environment, the major causes of divergence between social and private costs affecting SLM appear to result from the failure to internalise external effects, and issues related to land tenure security and failures of related markets, rather than from distortions in foreign exchange or international commodity markets. Interventions related to trade for SLM are probably therefore only appropriate as “second-best” measures where more direct approaches are not feasible. For example, restricting exports of timber may be a means to prevent deforestation if more direct measures are not feasible. In general though, beyond providing a favourable overall environment for agricultural production, macroeconomic and trade policies are likely to be of second order importance for SLM.

Box 2.1 Organic agriculture in East Africa

Kenya	Uganda	Tanzania
• Organic agriculture from 1980s. • Large private companies and civil society organizations (CSOs) have led the way with certified organics for export. • Also smallholder farmers organized into groups – some are registered organic. • National representative organization of stakeholders (both large companies and smallholder farmer groups) in organic agriculture – Kenya Organic Agriculture Network (KOAN). • Mainly fruit and vegetables for export market on large scale farms but also more recently essential oils and dried herbs and spices. • Small but expanding domestic market. • Estimates of 181,500 ha certified organic with 35,000 farmers (2007). • Much agricultural production is organic but not certified. • Government recently starting to recognize role of organic agriculture. No specific policy promoting organic agriculture. • Sections on organic agriculture included in draft revisions of soil and food policies.	• Certified organic farming mainly smallholder farmers organized into private companies, supported by commercial exporters. • Strong local organic movement. • Export market since 1994 – the main driving factor for the development of organic agriculture. 14 certified organic exporters in 2005 expected 22 in 2006. • Small but expanding domestic market. • National representative organization of stakeholders in organic agriculture – National Organic Movement of Uganda (NOGAMU). • Much agricultural production is organic but not certified. • No specific policy promoting organic agriculture. The organic Policy Development Committee was created in 2003 but progress has been slow due to lack of funding. • Uganda Export Promotion Board is interested in organic agriculture.	• Certified organic farming for export mainly by smallholders organized into co-operatives. • Organic cashews, pineapple, coffee, tea, honey, herbs and spices, cotton for export. • History of low-input traditional farming, so much agricultural production for domestic markets is organic or near organic, but not certified. • Estimates of 85,000 ha certified organic with 55,000 farmers (2007). • National representative organization of stakeholders in organic agriculture – Tanzania Organic Agriculture Movement (TOAM) – formed in 2005. • No specific policy promoting organic agriculture although existing National Agricultural Policy has clauses on organic agriculture and chapter on organic included in current draft revision.

Opportunities exist in some sectors to obtain premium prices for products that are produced in environmentally sustainable ways. A recent UN review found that in 93% of case studies reviewed, the adoption of organic agricultural approaches in Africa was associated with improved environmental management as well as increased agricultural productivity and incomes.[1] Certified organic production for export was generally highly profitable but did involve exposure to market risks. National agricultural policies often militate against organic production, while effective partnerships between farmers, farmer groups, NGOs and civil society organisations (CSOs), organic movement organisations, governments and certifying bodies at local, national and international level were required to support the growth of organic agriculture. Box 2.1 presents information about the growth of organic agriculture in East Africa where it has been particularly dynamic.

SLM technology development and adoption

Delivering services for SLM

Country case studies have shown a generally weak capacity to develop and disseminate SLM technologies in Africa. Traditional agricultural research and extension services have mainly focused on crop varieties, inorganic fertilizer, animal breeds, veterinary services and other traditional extension themes, with limited attention to SLM. Additionally, many farmers may not demand SLM technologies that have significant costs and limited on-farm benefits in the near term but have large long term benefits (e.g., terracing), off-farm benefits (e.g., reduced agrochemical usage), or that require many farmers to collectively adopt before the technology becomes effective (e.g., integrated pest management, watershed management). Burkina Faso (Box 2.2) presents an example where **effective techniques for improved land management have been developed through an agricultural research effort and then successfully implemented** but further expansion is constrained by institutional weaknesses and weak effective demand from farmers.

In general in Africa there has been a move towards a more pluralistic approach to agricultural research and extension. Uganda, for example, has started to privatize the extension services. Malawi and Tanzania have also privatized research services of the major export crops. NGOs with a focus on agriculture and the environment in Uganda were shown to have a comparative advantage in providing SLM technologies. **A strong link between farmers, the extension system and agricultural research is required to develop and disseminate agricultural technologies that respond to the farmer needs**. The link is also important in recognizing, developing and disseminating farmer innovations. Even though participatory and action research has improved this linkage in the past decade, there is still need to strengthen the link by formulating policies and strategies that foster the interaction of farmers, extension service providers and researchers.

Soil fertility input policies

One of the most common policy instruments used to remedy soil nutrient deficiencies in SSA has been promotion of fertilizer use through the reduction or removal of taxes on fertilizer or through direct subsidy programmes. **Designing and implementing effective and well-targeted fertilizer subsidy policies often pose significant challenges**. Fertilizer subsidies and import tax reductions only reduce fertilizer prices, which is just one of the determinants of demand for

1 *UN (2008), Organic Agriculture and Food Security in Africa, UNEP-UNCTAD Capacity-building Task Force on Trade, Environment and Development, New York and Geneva.*

Box 2.2 Approaches to SLM in Burkina Faso

Burkina Faso has achieved success with approaches to SLM focused on farming practice, stressing the need to promote mixed farming, the use of organic manure, other agricultural inputs and water and soil conservation techniques, citing evidence of the success of soil restoration and fertilisation with the Zaï technique (involving digging pits filled with organic matter to improve water retention), stone cordons, and organic manure. There is a strong emphasis on the role of decentralised initiatives and organisations. For instance, Village Land Management Commissions (CVGTs) are seen as playing an important role in encouraging tree planting and forest conservation as part of a strategy to regenerate soil fertility. The national agricultural strategy (CSLP) combines intensification to increase agricultural production with greater attention to SLM practices.

The "Gestion des Terroirs" approach used in the National Land Management Programme (PNGT) involves community-based land management that:

- Creates awareness of environmental degradation and conservation issues.
- Supports local government in developing new natural resource management regulations.
- Supports adoption of SLM and income generating activities, including providing training and support in soil fertility management practices.

By early 2007, over 12,000 subprojects had been financed through the PNGT at a cost of USD39 million. A recent World Bank study estimated economic rates of return of 116-250% on investments in stone fencing and compost pits taking place through the programme. The experience under Phase 2 of the Programme is seen as having built up a body of knowledge of effective techniques for erosion control.

The major issues for successful further expansion of these techniques relate to limited local management capacity and the ability to work effectively through decentralised local government arrangements. There are also concerns that farmers' effective demand for undertaking such practices improved practices is limited, partly as a result of concerns about land tenure security

Source: GM Comparative Review Annex A

fertilizer. Other important determinants of demand for fertilizer are roads, storage facilities for commodities, prices of agricultural commodities and agricultural market information. Administering and paying for subsidy programmes, which can be costly, is also challenging for governments. There is a need to find mechanisms for successful targeting and monitoring to ensure subsidy programme objectives are being met.

Fertilizer subsidies, even if effective, distort incentives towards using inorganic fertilizer, which are critical to achieving SLM. Even if the fertilizer demand increases to achieve the recommended fertilizer amount, crop yield is likely to decline on continuously cultivated plots mainly due to depletion of organic matter. For example, a long-term experiment in Kenya showed that maize

yield continued to decline even on plots that received nitrogen, phosphorus and potassium above the recommended levels. This suggests the need to explore the promotion of other SLM technologies that will increase organic matter content. Examples of such organic soil fertility practices are conservation agriculture, agro-forestry and organic manure.

Adoption of organic fertility management practices is constrained by high labour intensity, bulkiness, lack of vegetative planting material in markets, low capacity of extension services to advise farmers on SLM and lack of well-adapted organic soil fertility technologies. Solutions to these problems include promotion of low-cost transportation equipment such as ox-carts, and increasing the capacity of research and extension to provide SLM services – as discussed above. Agroforestry planting material production and marketing in Africa are weak or completely absent. **Promotion of production and marketing of agroforestry planting material requires addressing the long-term problems of market information systems, infrastructure, and generation and dissemination of appropriate technologies.**

Reducing divergences between social and private costs: payment for ecosystem services

In the last decade, **interest in payments for ecosystem services (PES) as a means of both recognizing the services provided by ecosystems and encouraging more sustainable use of natural resources has increased significantly.** The interest has mainly been in protection of biodiversity, carbon sequestration and watershed protection services. One of the largest such initiatives, the Clean Development Mechanism (CDM) is a global initiative that allows industrialized countries that have ratified the Kyoto Protocol to invest in emission reducing projects in developing countries as an alternative to what is generally considered more costly emission reductions in their own countries. The CDM programme has developed the carbon market by linking the buyers and sellers of biocarbon. The global carbon market has grown in value to USD 21.5 billion in 2006, but Africa, which will be most affected by climate change, accounted for only 1.4% of the carbon market volume in 2006. In 2006, SSA had only 19 of the 1274 CDM projects in developing countries. PES markets at national and local level in SSA are still very weak but have a large and growing potential to develop if the existing constraints are addressed.

Two main types of barrier exist to accessing PES markets in most African countries. The first relate to general governance, capacity and institutional constraints (which potentially impact on all forms of investment activity). These include a lack of political stability and resources that militate against longer-term investments such as action on climate change, weak financial markets, and a wide range of constraints on private sector initiative resulting from lack of information, and poor communications infrastructure. Specific barriers include those related to the Kyoto Framework (limitations on the type of projects in forestry and land-use sectors that are eligible), and uncertainty about the regulatory framework after 2012 which increases risks and shortens time horizons over which projects can benefit from carbon revenues. The costs of developing and managing projects under the framework of the UNFCCC are also frequently prohibitive while the use of PES requires both a strong scientific basis for establishing the environmental benefits of a particular scheme, and a mechanism for making financial transfers.

There is a large potential for PES involving both public and private buyers and sellers in SSA, however this has yet to be exploited to any significant extent. Constraints include lack of capacity, high transactions costs, lack of data on the potential of PES, and barriers to effective collective action of smallholder suppliers of PES. **The international architecture of carbon finance has been poorly adapted to the needs of the poorest and institutionally weakest contexts** (where arguably natural resource capital is under the greatest threat). However, some countries in SSA have benefited from PES projects and the carbon market in the SSA region is growing fast. A number of other PES programmes designed around biodiversity conservation are also being implemented in several countries in SSA. Joint agreements between government-owned forest reserves or game parks and communities in the proximity of the protected area offers a large potential for ecosystem service market involving local buyers and sellers. These arrangements are likely to strengthen the enforcement of the poorly enforced conservation regulations in public natural resources.

Carbon sequestration ecosystem services could promote SLM. For example protection of forests could contribute to reducing soil erosion. Additionally, PES markets could be used to help farmers adopt soil and water conservation practices that they cannot afford otherwise. For example a pilot project in the eastern arch montane forests located in Tanzania pays farmers

Box 2.3 Potential for PES in Eastern and Southern Africa

A study by the Katoomba Group, which seeks to address key challenges for developing markets for ecosystem services, distinguishes four types of ecosystem service payments:

1. Public payment schemes to private land and forest owners to maintain or enhance ecosystem services.
2. Open trading between buyers and sellers under a regulatory cap or floor on the level of ecosystem services to be provided.
3. Self-organised private deals between individual beneficiaries of ecosystem services and providers of those services.
4. Eco-labelling of products that assures buyers that production processes have a neutral or positive effect on ecosystem services (as discussed in 2.3 above).

This study reviewed 68 PES or related initiatives (of the first three types and focused on carbon, water or biodiversity including landscape beauty) in Eastern and Southern Africa and found that governments had little engagement with these initiatives and that legal and policy changes were not being made to accommodate PES. It was noted also that at the moment PES is developing on an ad hoc basis through small-scale pilot projects in the region but that there is increasing international interest and promising on the ground deals to make plausible a strategy that in the short to medium term focuses on developing and piloting more project models, and in the longer term envisages changes to the legal and policy environment and the building of technical financial capacity to support PES deals with a view in the long term to making PES a significant source of additional funds for conservation and development in the region.

Source: Ruhweza, A., (2009), Strategies for Integrating PES into East & Southern African National Policies, The Katoomba Group, Washington DC, June 30th

who make long term SLM investment within the river basin to improve watershed protection services, which in turn improves the quality and reliability of water supply. Box 2.3 summarises the approach the Katoomba Group is adopting to supporting the development of PES in Eastern and Southern Africa.

Land tenure: ensuring security and facilitating efficient transfer

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Many SLM practices – such as soil and water conservation (SWC) structures – **involve long-term investments that require greater tenure security for widespread adoption**. However, improving tenure arrangements does not necessarily require formal land titling. Evidence on the link between SLM and formal land titling is mixed. Empirical studies in SSA have shown that farmers holding land under the customary land tenure system often have better or at least comparable productivity and land improvement investments with farmers holding land under formal leasehold or freehold tenure with titles; while others found that greater tenure security and more complete land rights (not necessarily involving formal title) do contribute to some types of investment in some contexts. In order to improve the incentive for SLM, linking SLM or land use planning to land tenure reform activities may be useful. Policymakers may be able to promote desirable land investments or protection and conservation of land-based resources by linking provision of increased tenure security (e.g., through long term leasehold contracts or titling of freehold land) to farmers' investment or conservation activities.

An important question for policymakers is **how to effectively accommodate customary land tenure into national statutes and policies**. Many countries have enacted statutes and formulated policies which recognize customary land tenure. Most, however, do not give the customary leaders responsibilities for allocating land or to participate in conflict resolution. The statutes also do not protect customary tenure land holders from eviction by the government or land grabbing by elites. There is need to strengthen land tenure statutes and clearly stipulate the inalienable rights of land holders even when they do not have individual land titles. The statutes should also give customary institutions the role to allocate land and resolve land conflicts. In this regard, the Rural Code in Niger, which clearly stipulates the role of customary institutions to allocate land and resolve land conflicts, offers a good example for other countries to emulate.

Improving the ability of women to own land within formal and customary systems where they often lack rights can also have a significant impact on SLM. While reforms of this kind may require a long term process, it is an important element of the overall process of tenure reform and dialogue.

Box 2.4 The regreening of Niger – contribution of enhanced property rights

Niger has seen a substantial improvement in the quality of agricultural land since the mid-1980s based largely on farmer-managed natural regeneration (through the management of natural tree growth rather than replanting) on a very large scale, estimated as covering up to 5 million hectares of land. A number of factors underlie this including an improvement in rainfall and increasing population pressure which has increased incentives for sustainable land management. However, Reij attributes a significant role in this development to improvements in the legal and policy framework that had the effect of strengthening the effective ownership by farmers of trees on their land, increasing incentives to maintain and nurture tree growth.

Source: World Bank (2009), Republic of Niger Impacts of Sustainable Land Management Programs on Land Management and Poverty in Niger, Report No. 48230-NE; Botoni, E., and C. Reij, (2009), La transformation silencieuse de l'environnement et des systèmes de production au Sahel, CILSS/ Centre for International Cooperation, Free University of Amsterdam, May.

In many countries **land registration has achieved limited progress due to weak capacity to conduct cadastral surveys**. This has often frustrated government efforts to register land under the customary tenure. Additionally, farmers may also not see the need for land titling if they do not feel that their tenure is insecure or if they do not believe titles will in fact strengthen their security of tenure. This suggests that land titling efforts that attempt to cover all untitled land may not realize the desired economic returns and in some cases may not be necessary and need to be demand led. Areas where the demand for titles may be high include urban and peri-urban areas where demand for land for alternative uses is high, or where high value agriculture is being pursued.

The GM Comparative Review highlights the central importance of land policies and the way in which the land system operates (in terms of legal and regulatory structures, formal and informal institutions for conflict resolution, and other management functions) for successfully addressing SLM. It does appear that it is the incentives faced by, and the resources available to, **the poorest and most marginal farmers**, operating on the poorest and most marginal land, that are of the greatest importance to preventing and reversing land degradation. This problem is a multi-dimensional one, and one that can confront extremely powerful economic and political interests.

The land policies and institutions of the countries reviewed are quite diverse. In Burkina Faso, Ethiopia, and Mozambique, the state has asserted ownership of land but has subsequently moved in varying degrees to decentralise decision-making about land. In Burkina Faso and Mozambique this has involved the recognition of local systems and authorities within what is in principle a uniform national system. In Ghana and Uganda, there is a complex mixture of "traditional" systems that were recognised and whose status was changed through colonial policies with "modern" systems based in the Ugandan case on freehold, and in Ghana on state ownership of some land and mineral rights. In both of these cases there are recognised to be significant problems with both the formal framework and of land rights and the operation of the institutional arrangements for land management. There are processes of reform taking place in both countries, though in both cases implementation has been slow and politically sensitive.

Despite this diversity, the same challenges and issues arise in each of the countries reviewed. In each of the systems, there appear in principle to be **mechanisms that should provide tenure security and means of dispute recognition and the protection of land rights.** However, customary tenure systems in some cases incorporate significant biases against particularly groups, including women, migrants and pastoralists, and mechanisms for land transfer are also incomplete in some cases, while in practice the ability to capitalise and securitise land rights as a means to secure investment resources are very limited for almost all landholders. But achieving tenure security depends critically on the **effective operation of both local and national institutions within the land administration and wider legal and judicial system**. Key challenges are finding cost effective ways of delineating and documenting land rights, and ensuring that dispute resolution procedures are not subject to manipulation.

The GM Comparative Review suggests that strengthening land policy and land administration arrangements should be central to achieving SLM, although more empirical analysis of the determinants of farmer behaviour is desirable to improve understanding of the likely impact on incentives. However, it is not sufficient to focus on the formal structure of land rights. **Effective ways of making land management systems accountable and protective of land rights – particularly for the poor – need to be found.** There is no strong evidence that particular forms of land tenure arrangement (e.g. freehold) are especially favourable to SLM, or that others (such as state ownership of land or forms of communal) are not in principle compatible with the protection and development of secure and potentially transferable use rights.

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In terms of guidance for policy making in this area, **Ethiopia has successfully developed implemented a very low cost and participatory system for recording land rights.** What is not yet clear is the extent to which this, or more expensive and ambitious approaches to the registration of land rights involving cadastral surveys to which some aid donors are heavily committed, is in fact leading to improved tenure security (and hence to improved incentives to engage in SLM). In the absence of effective, fair, and cost effective arrangements for dispute resolution and to allow land holders to protect their rights and record transfers, certification will not in itself substantially change incentives. Progress in establishing effective, cost efficient and fair institutional arrangements remains limited, although Mozambique provides useful examples of donor and NGO-supported initiatives to help landholders (especially landholding communities) to protect their legal rights.

Progress towards programmatic approaches to SLM

As discussed in the Introduction and Framework Section above, the past record of support to SLM in Africa has involved **piecemeal projects and has lacked effective coordination** either between these projects or more fundamentally across the different sectors and levels of government whose activities bear on land management practices. Recent initiatives supported by TerrAfrica, the Global Mechanism, FAO, GEF and other international bodies have sought to encourage a more integrated approach to SLM both at the policy level and through the promotion of the Country Strategic Investment Framework for SLM (CSIF).

These approaches are consistent with the broad international thrust of reforms aimed at improving both the effectiveness of national government policies and the effectiveness of aid in supporting them. These approaches are encapsulated in the Paris Declaration of 2005 and the recent Accra Agenda for Action. The Paris Declaration Principles (Ownership, Harmonisation, Alignment, Management for Results and Mutual Accountability) are envisaged as helping to improve aid effectiveness through ensuring that aid is provided in a way that supports agreed government priorities, and that uses and strengthens government systems rather than undermining them through developing parallel institutions and channels for aid delivery. **This new aid architecture demands new approaches and strategies to support countries affected by land degradation in mobilising resources for SLM**, including the adoption of instruments such as programme approaches and direct budget support.

The core model for improving aid effectiveness envisaged in the Paris Declaration is the Programme Based Approach (PBA).[2] A PBA is defined in the Paris Declaration as involving: (a) leadership by the aid-receiving country or organisation; (b) a single comprehensive programme and budget framework; (c) a formalised process of donor coordination and harmonisation of procedures for reporting, budgeting, financial management and procurement; and (d) efforts to increase the use of local systems for programme design and implementation, monitoring and evaluation. A programmatic approach to SLM potentially provides a framework for improving cross-sectoral and cross-ministerial dialogue (so as to improve coordination in planning, prioritisation and budgeting), for more effective and coordinated implementation, and for monitoring and evaluation at a level above that of individual projects that may enhance monitoring and evaluation.

The application of a programmatic approach poses two specific challenges for SLM:

- First, **SLM depends on the activities of multiple public agencies** (in both central and local government) which need to develop and share a common vision as well as to establish effective mechanisms of coordination. Developing and applying PBAs is generally most straightforward where the bulk of relevant expenditure is focused in a small number of core agencies, for instance in education or roads.
- Second, **achievement of SLM objectives depends critically on influencing private behaviour**, while involving the interests of a potentially extremely wide range of stakeholders because of the important externalities involved. This can include the international community

2 A Sector Wide Approach (SWAp) can be seen as one form of PBA where the area of focus corresponds to a well-defined "sector" and also typically where there are substantive efforts by donors and government to establish common funding arrangements. Since it is not generally possible to consider SLM as comprising a sector (but instead cutting across more traditional sectors such as agriculture, natural resources, forestry, and water), programmatic approaches to SLM have not generally taken the form of SWAps.

as a whole in relation to concerns about the contribution of poor land management practices to climate change and the loss of biodiversity.

However, **weak coordination and integration of policies and financing may not be the cause of failures of effective implementation. Rather these problems may be symptoms of limited political commitment** and of the effective voice for the interests of those most affected by land degradation in the political process. If this is the case, moving towards a programmatic approach (especially when this process is donor led) is unlikely to confront the underlying issue of political commitment. An effective PBA needs to be driven by a political commitment from government and to be responsive to the needs of those most affected.

A more programmatic approach to SLM therefore most fundamentally requires government leadership, though aid donors have an important supporting role to play. The challenge is to mainstream SLM objectives into the overarching policy processes rather than relying on ad hoc initiatives outside core government processes which even if they succeed in attracting donor resources are likely to prove to be unsustainable.
The process of developing a programmatic approach to SLM requires the following:

- **Understanding the causes and dimensions of the SLM challenge** in each national context, in learning what practically can be done to address the challenge, and in turning this into an effective national programme or strategy.
- **The involvement of wide groups of stakeholders** in the development of the strategy for SLM (including their differing interests and influence over the policy process), and how broad and deep is ownership of this strategy.
- **Integration of SLM priorities into national policy statements and goals**, and how well mainstreamed it is into other (sectoral and cross-cutting) policies and strategies.
- **Development of a results framework** against which to assess SLM progress, including the establishment of appropriate monitoring and evaluation mechanisms.
- **Determination of the respective roles of different organisations** (including different levels of government, the private sector, and civil society and community based organisations) in implementing the SLM strategy, and how constraints on the capacity of these organisations to fulfil their roles are being addressed.

All the countries in the GM Comparative Review have made some progress and have ongoing initiatives to develop a more programmatic approach to SLM, both as part of wider processes of aid and public sector reform (influenced by the Paris Declaration) and as a result of specific initiatives related to SLM. However, in some these initiatives have encountered significant obstacles (particularly relating to problems in coordination across ministries and between different levels of government, and the limited engagement/interest of many donors and governments in actually moving towards a more effective and coherent approach). The process of moving towards a more programmatic approach in Burkina Faso, for example, appeared to be relatively dependent on donor leadership and support, and had made less progress in overcoming institutional obstacles to cross agency coordination.

Ethiopia had made the most substantial progress in developing a coherent SLM programme (see Box 2.5). The first and most important reason for progress has been high level political support to the process and to SLM as a priority, and recognition that the

development of a more programmatic approach is necessary to overcome what have been diagnosed as the fragmentation of past efforts. This political support has helped maintain momentum and strategic direction over a process that has lasted several years, despite obstacles such as staffing changes and the need for effective coordination across multiple agencies and levels of government. The second feature of the Ethiopian experience has been a relatively inclusive attempt to develop consensus with stakeholders around the main features of the SLM Program (although NGOs and CSOs have been much less fully involved), and to systematically collate and review evidence on the performance of SLM initiatives.

Box 2.5 Developing a programmatic approach to SLM in Ethiopia

The Ethiopian government has developed and is implementing the Ethiopia Strategic Investment Framework for SLM. This sets key priorities for SLM investments, sets out a strategy for scaling up SLM based on best practice lessons, and defines the approach and mechanisms for coordination, consultation, participation and monitoring and evaluation. The Government has also established a National SLM Platform (which comprises a multi-sectoral and multi-stakeholder National Steering Committee and Technical Committee, supported by a Secretariat). It is intended to establish similar SLM Platforms at Regional level. The Program is envisaged as covering 177 watersheds in high potential areas in eight regions over five years of implementation, based on the model of Participatory Watershed Management.

The SLM Program has been developed through a process lasting about three years involving the main government, donor and NGO stakeholders, focusing on those donors and NGOs with direct field experience of SLM programs. This process has helped to build a consensus on the key elements of the approach although it was somewhat delayed by institutional and personnel changes at the Ministry of Agriculture and Rural Development. A key feature is to try to ensure community responsibility for the investments undertaken. This envisages the establishment of "Watershed Associations" to take responsibility for investments and SLM practices, though neither the legal framework nor the institutional capacity for this arrangement is currently in place.

The Country Strategic Investment Framework (CSIF) Platform provides a framework for donor support of the SLM Program (and the further development of the land certification system). This will provide an umbrella for funding although it is not envisaged that there will necessarily be common funding arrangements. Rather the SLM Program provides a structure within which individual projects may be incorporated to align on overall government policy. The development of the CSIF was followed by a Donor Conference to seek to secure funding commitments beyond those already provided by IDA and GEF. There has been little systematic investigation of the possibilities of securing innovative forms of financing, particularly in relation to carbon sequestration related to reforestation. An important feature of the Ethiopian system is fiscal decentralisation through the provision of substantial block grants to regions and districts (woredas). The longer term sustainability of SLM programmes depends on strengthening of capacity at these levels of government as well as at the local community level.

Source: GM Comparative Review Annex A; SLM Secretariat (2008), Ethiopian Strategic Investment Framework for Sustainable Land Management, Ministry of Agriculture and Rural Development, Ethiopian Federal Democratic Republic, August.

FINANCING SLM

Determining appropriate public expenditure on SLM


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Despite many sources of uncertainty, the evidence from the case studies suggests **there is a large gap between the current levels of public expenditure on SLM** (especially outside the forestry sector) **and the level of expenditure that would be justified based on likely economic returns**. Estimates of the economic rate of return on investments in SLM (for example in Burkina Faso and Ethiopia) are strongly positive provided that these investments take place through the use of participatory approaches that have been shown to be successful in each country.

Estimation of the size of the financing gap for SLM (defined in terms of the level of expenditure that would be justified in terms of the development impact of improved land management practice) is complicated by several factors. First, there is little **comprehensive information available about the current levels of SLM and SLM-related expenditure** except in the few countries (including Uganda and Malawi) where a public expenditure review focused on SLM has taken place. Box 3.1 summarises findings from the Uganda SLM Public Expenditure Review (PER). Second, existing estimates of the economic costs of land degradation are far from a complete assessment of the overall development cost. Third, there are major gaps in data about the scale and nature of the land degradation problem.

A central issue is the **appropriate role of the state in funding improvements in farming practices and associated investments**. Many of these improvements should be privately profitable for farmers (or collectively profitable for the local area) provided that farmers have sufficient security of tenure to feel that they will reap the benefits of investments, as well as having sufficient access to markets. To this extent, they should not require full government or donor funding provided that there are means available to raise or deploy capital resources locally. However, it was noted in Burkina Faso that while there are well-developed models for how to reverse land degradation there was a problem of limited demand from farmers to undertake these improvements and investments. Understanding the nature of the apparent unwillingness or lack of ability of farmers to undertake such investments is critically important, since the appropriate policy response depends on whether the causes are tenure insecurity, lack of access to viable economic opportunities, or other constraints such as lack of access to investment funds.

Although the most marginal and poorest households may face an absolute resource constraint, **agricultural and livestock producers in aggregate undertake significant savings and investment activities** despite rarely enjoying access to formal sector finance and so face a choice about whether

to invest in SLM or other assets and activities. The successful development of models for SLM that strengthen incentives for farmers to invest, and address other constraints (such as the weakness of financial markets) on investment, is required effectively to leverage public expenditure so as to increase impact.

A strong conclusion is that **the main constraint on closing the financing gap is an unwillingness of African governments to prioritise expenditure on SLM** (and on agriculture and rural development more generally) **or to find effective ways to increase the private funding of SLM activities**. Increasing the flow of donor resources specifically earmarked or targeted on SLM will not in itself address this problem, and is likely to lead only to a further proliferation of project-based activities that may be relatively successful in the short-term but that will lack sustainability or government commitment.

The GM Comparative Review encountered a dearth of evidence about the scale of private financing for SLM in Africa, or of lessons about what can practically be done to increase this. There appear to date not to have been any significant experiments with innovative sources of funding outside the few countries like South Africa and Kenya that have a relatively strongly developed institutional infrastructure particularly in relation to the financial sector.

Box 3.1 Estimating SLM expenditures in Uganda

The Uganda SLM Public Expenditure Review identified an SLM portfolio that encompasses public expenditure both government and donor funded but excluding off-budget expenditure (which was not judged to be significant). Recurrent expenditure was not included in the analysis because ministries and agencies implementing SLM-focused or related activities generally also undertook many other non-SLM related activities and budget coding (which did not identify SLM) making it impossible to attribute recurrent costs to SLM activities. The "SLM sector" expenditure in Uganda comprises agriculture (including livestock management) and forestry sectors and "potential SLM" expenditures were also identified. SLM-related sectors were defined as including water, fishery, tourism, protected areas and hydro and energy sectors. Actual budget expenditure allocated for "SLM sector" activities during 2001/2 – 2005/6 was equivalent to US$ 38.9 million equivalent to 0.28% of total budget expenditure. Including "SLM related sector" expenditure increased the share of total budget expenditure fourfold to 1.15%. In spite of the fact that the agriculture and forestry sectors created about 42% of Uganda's GDP, SLM public expenditure on agriculture and forestry equalled only 0.13% between 2001/2 – 2005/6. After initial growth during 2001-3, SLM sector expenditure fell significantly most likely as a result of a falling disbursement rate for projects so that the Medium Term Expenditure Framework ceiling is being consistently undershot. Actual disbursement of SLM expenditure was only 42% of planned expenditure. 83% of SLM sector expenditure was financed by donors or 72% if SLM-related sectors are included.

Source: World Bank (2008), Uganda Sustainable Land Management Public Expenditure Review (SLM PER), Report No. 45781-UG, November

Impact of public finance reform on SLM

The overall lesson from experience is that **increasing the provision of public resources for SLM in the context of PFM reform requires effective advocacy and engagement with the processes by which resource allocation decisions are made**. In part this may involve presenting clear and compelling evidence about the returns to public expenditure in relation of development objectives and evidence that there are plausible ways to achieve these returns through tried and tested approaches. In part it may involve building effective political coalitions to improve the responsiveness of the decision-making process to the needs and interests of the rural population, in particular the rural poor. It is also important that strong attention in the design of PFM and wider institutional reforms including decentralisation is placed on the building of planning and management capacity at the local level.

In all five of the countries in the GM Comparative Review there are substantial ongoing reform efforts, and at least some progress has been made, in strengthening the public financial management (PFM) system and attempting to link the allocation of public resources more coherently to development priorities. PFM reform also seeks to integrate the planning and management of government expenditure and donor resources which is central to the establishment of programmatic approaches. The evidence reviewed suggests the following conclusions:

- Where **progress** has been made **in linking expenditure planning to development priorities and in establishing and enforcing medium term sectoral or ministerial resource envelopes** (as in Uganda and Ghana) this **has not led so far to any clear increase in the allocation of budget resources to SLM** (or indeed to the agriculture and rural development sectors in general).
- Even where there has been progress at the macroeconomic level in PFM reform, there are **substantial problems relating to lack of capacity at lower levels of government**, and bottlenecks in the release and effective use of resources appear likely to impact especially negatively on the types of activity (like extension services and local land administration) that are of central importance for SLM.
- Even in the Ethiopian case **the SLM Program is not so far integrated within the regular budget process**, and the full cost implications in terms of long-term public expenditure commitments to ensure sustainability have not been developed. Likewise, costings of National Action Plans have tended to provide listings of proposed standalone investments, rather than building from an understanding of current levels of expenditure and the financing requirements of ongoing core functions of government to support SLM.

While there has been consideration of the use of financing mechanisms such as royalties (most notably from mining as in Ghana) and the use of covenants that require mining companies to restore degraded agricultural resources after the completion of operations, **SLM initiatives have remained overwhelmingly dependent on donor funding and on transfers from central government**. In principle, measures that strengthen fiscal decentralisation (provided that this does in fact makes expenditure decisions more accountable to local interests, including those of resource-poor farmers) could be expected to improve responsiveness to local concerns and hence to boosted SLM expenditure in cases where this is a local priority. Ethiopia may provide an interesting

test case, since the financing framework for the SLM Program specifies that there should be contributions from each level of government.

The use of donor assistance for SLM

The following conclusions and lessons about the use of donor assistance for SLM emerge from the review of experience:

- There has to date been **little experience in the case study countries with forms of donor support to SLM that are not fundamentally project-based**. This reflects the limited progress that has been made in moving towards programmatic approaches to SLM in comparison with some other sectors. There is evidence (for instance from Burkina Faso and Ethiopia) that while project approaches have often been successful, the failure to embed projects within a wider programme context has militated against the scaling up of successful initiatives as well as to problems about the sustainability of approaches that depend on flows of public expenditure and effective implementation capacity at the local level.
- This suggests that it **is not the mode of donor support** (i.e. whether or not it involves pooled funding arrangements of various kinds) **that is the main determinant of sustained success, but whether particular initiatives are integrated within a coherent overall planning and financing framework for SLM which enjoys high level political support.** How donor support should best be provided within a PBA may take various forms in different contexts (depending on the extent of progress with public finance reform and capacity development). The overall determinant of success is likely therefore to be the effectiveness of national leadership to ensure coherence among related initiatives.
- **Donors have however played an important role in supporting the processes by which more programmatic approaches to SLM are being developed**, for instance in Burkina Faso and Ethiopia. This has involved support to the review of experience and to engagement with stakeholders in the development of SLM programmes.
- One problem for achieving an integrated and programmatic approach is the preference of some significant donors for focusing resources on particular aspects of SLM (for instance support to formal land titling) rather than adopting a comprehensive approach to supporting a national SLM programme as a whole. In addition, **it remains to be seen whether donors in practice have, or are prepared to provide, sufficient flexibility to move away from project based approaches** towards more integrated forms of support.

GUIDANCE FOR ACTION

The background papers for this study (and the complementary reviews by FAO) have shown evidence that there are likely to be substantial development returns to investment in SLM and to improved land management practice, and that there exists a body of international and local knowledge and practice that can provide a basis for SLM. There has also been some progress in developing programmatic approaches to SLM that have built on successful experience and initiatives and hold out the promise of more sustained achievements in the future if sufficient priority is accorded to action to promote SLM. Effective national government leadership that is responsive to the concerns and interests of primary stakeholders will be the main determinant of whether this promise is realised, while well-designed and flexible donor support will also be necessary.

The key areas for action by African governments that emerge from this study can be identified as follows.

Substantial strengthening of the information and evidence base on the scale and determinants of land degradation and climate risks, their economic and other costs, and the benefits of SLM practices. This includes most critically the need for an improved understanding of the incentives and constraints on action by farmers, communities, and the private sector to adopt SLM practices, including the relationship between these incentives, the operation of output and input markets, and the working of key national, sub-national and local level institutions. This information needs to inform policy and investment dialogue across all sectors and partners.

Policies and institutions that ensure security of land tenure for the poorest and most marginalised farmers while providing flexibility to enable land to be used productively and sustainably by those with the resources to do so. This requires effective legal and administrative protection for land rights, and the development of capacity, accountability, and resources for the local level institutions that play a central role in resolving conflicts over land rights.

Ensuring that the public and donor resources provided to address the problems of land degradation are proportional to what the evidence suggests about the scale of its impact on poverty and economic performance. This should be based on an integrated financing strategy for SLM and involve the engagement through participatory approaches of private sector and local resources (labour and capital) so as most effectively to leverage the use of public resources including through facilitating investment by farmers and landowners in sustainable land management practices, especially by increasing tenure security.

Mainstreaming SLM into the budget and planning process at each level of government in a way that focuses resources and efforts across sectors on agreed SLM objectives. The CSIF process and product provides one route for achieving this but it may also require reforms to the national budget system (for instance to allow SLM expenditures to be more accurately identified and tracked) and needs to be supported by broader public finance reforms that improve the effectiveness of the planning and management of public resources and their allocation in line with agreed priorities.

The effective development of local level capacity to support SLM, and the channelling of resources to be used at the local level. The achievement of SLM is critically dependent on local level capacity the weakness of which is one of the main constraints on scaling up successful initiatives.

Work with stakeholder groups to explore the potential for PES and the government action necessary to facilitate the development of PES markets while lobbying in international forums for the development of more suitable funding instruments. In the short term, private finance and PES may make only a limited contribution to the funding of SLM priorities, though over the longer term they may have significant potential (especially in relation to deforestation).

The key actions for Africa's development partners may be identified as follows:

Ensuring that resources are provided in support of SLM programmes in line with agreed priorities, and that a proliferation of overlapping and parallel processes is avoided, while programme based support should be designed to reduce transactions costs and to build capacity within government. The CSIF can provide a single country-owned framework for increasing financing and using resources more effectively and efficiently and for tracking performance of a portfolio of activities against an agreed results framework across a range of country investment priorities.

Actions based on a clear understanding of the political context and the political economy of the process by which policies relating to land are formulated and (most importantly) implemented. This may require advocacy and support to try to strengthen the voice and interests of those most affected by problems of land degradation within the policy process, including through support to civil society and community based organisations, as well as selective capacity building support to strengthen the effectiveness, accountability and responsiveness of institutional arrangements.

Provision of support to processes that strengthen national budget and planning systems and the alignment of aid on agreed strategies and through the use of government systems. This involves implementing the Paris Declaration Principles for activities in support of the objective of SLM.

International action to develop more relevant and accessible sources of funding for both greenhouse gas mitigation and climate change adaptation. The existing mechanisms for accessing carbon financing have not proved effective for most African countries under the current international arrangements.

TerrAfrica is a partnership that aims to address land degradation in Sub-Saharan Africa by scaling up harmonized support for effective and efficient country-driven sustainable land management (SLM) practices.

OUR LAND—OUR WEALTH, OUR FUTURE, IN OUR HANDS

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