

Liberia Poverty Reduction Strategy

Environment Strategy Brief

(31 October 2007)

1. Background

The estimated 80-85 percent of Liberians, who are below the poverty line and unemployed, are critically dependent on fertile soil, clean water and healthy ecosystems for their livelihoods and well-being. This reliance creates complex, dynamic interactions between environmental conditions, people's access to and control over environmental resources, and poverty. In addition to being vulnerable to environmental hazards, the poor are usually confronted by economic and technological barriers in deriving full benefits from their environmental assets. Taking strategic actions based on knowledge of these poverty-environment relationships is a prerequisite for enduring success in the fight against poverty. International evidence indicates that investments in the productivity of environmental assets can generate large benefits for the poor and for the enhancement of overall growth in developing economies.

2. Linkages between environment and PRS themes

2.1 *Environment and national security*: The "resource curse" that characterized Liberia's immediate past was typified by mismanagement of the proceeds from extractive industries and their misuse to undermine national security. Hence, the imposition of international sanctions on the trade in Liberian timber and diamonds. Eliminating this curse requires the institution (or restoration) of proper administration and management of natural resource uses, particularly of commercial logging, mining, fishing, and hunting, so that revenues generated are not misused. Policy and legal frameworks creating practical mechanisms for more robust and transparent oversight of these activities and ensuring equitable distribution of wealth, particularly at the community level, can make this possible. Such supervisory mechanisms will be particularly critical in the sharing of the wealth generated from forestry and mining concessions, and which should also be extended to rubber plantations. The laws pertaining to extractive industries should also reflect international standards, and take into account the needs of affected communities. If unabated, the involvement of some commercial companies in reckless exploitation of natural resources and pollution of the environment can make the majority poor feel powerless, apathetic, suspicious of the judicial system and disinterested in obeying the law. It is also important to increase preparedness against natural disasters and emergencies, including in response to climate change risks, by developing a national disaster management policy and plan and establishing an inter-sectoral coordination mechanism to increase security against the priority threats of floods, coastal erosion, forest fires and chemical spills

2.2 *Environment and economic revitalization*: Liberia's natural resources have been the basis of its economic growth and livelihood for a majority of its population, generating 60 percent of export earnings in 2002. Agriculture and forestry, for instance, contribute approximately 55% and 24% of the GDP respectively. The country's natural capital remains a foundation for its economic revitalization. However, the ways in which Liberia's forests, minerals, fertile soils, waters, wetlands, fisheries and wildlife are used and managed will influence the quality of ecosystem services provided by the environment, and by extension, will affect the prospects for current and future economic growth and the livelihood security of the population. It is therefore crucial that development planning and policies recognize the economic value of "hidden benefits" derived by many poor Liberians from ecosystem goods and services (particularly from forests and swamps, e.g. wild fruits, honey, animal protein, herbal medicine, flood attenuation, etc) and its importance to their livelihood security. At the same time ineffective policies and weak institutional capacity that results in poor application of environmental legal safeguards, could be perceived as a fetter to economic revitalization. Belated and sloppy handling of the Environmental Impact Assessment (EIA) process can delay the issue of investment licences and create the impression of an anti-development agenda. Yet, if properly applied

in a timely manner, the EIA provides a safeguard in balancing the environment and development interests.¹

2.3 *Environment and governance and rule of law:* The poor governance, lawlessness and culture of impunity that characterized Liberia's immediate past, if not reversed, can exacerbate the current environmental problems such as the illegal and unsustainable exploitation of the natural capital and the neglect of water quality and public health standards. Adequate resource access and tenure by the poor, proper land use planning, and natural resource management regimes with clear and transparent procedures for sharing the benefits accruing from forest and mining concessions and protected area management can help to minimize or avert resource-use conflicts. Important prerequisites for sound environmental governance are:

- Strengthening of democratic processes at both the national and decentralized levels,
- Building the confidence of the public in the judicial system,
- Re-tooling the judicial officers for effective enforcement of environmental laws, and
- Instituting workable systems of transparency and accountability at all levels of public management.

An institutional co-ordination mechanism, centred on a vibrant Environment Protection Agency (EPA) can enable key environmental stakeholders to act in concert towards the fulfilment of the objectives of the national environment policy and law. A Liberia with a strong environmental governance regime will also be capable of engaging effectively in regional co-operation with neighbouring countries in the management of trans-boundary environmental resources and in the enforcement of international conventions, such as those concerning trade in endangered species and trans-boundary movement of hazardous waste.

2.4 *Environment and rehabilitation of infrastructure and basic services:* The most important impact of the collapse in Liberia's electricity generation infrastructure, has been a heightened dependency on biomass with 99.5 percent (2004) of the population relying on charcoal and fuel wood to meet their energy needs. This shift is also reflected in the increase of charcoal's contribution to the GDP from two percent of in pre-war times (i.e. before 1989), to nine percent in 1999. The growth in charcoal demand has significantly accentuated deforestation and biodiversity loss and this negative trend needs to be reversed by promoting renewable energies to decentralise electricity generation for the poor. Inadequate access to water, sanitation and waste management services can adversely affect public health and hygiene, especially for the poor and internally displaced people in rural and peri-urban areas. Infrastructure investments in the sewerage system would have the largest impact in controlling waterborne diseases which make-up a major part of all diseases reported in the Liberia and significantly improve public health and environmental conditions, particularly for the poor. The poor road network in the country is impairing market access and delaying the economic empowerment of the poor. Whilst investments in the expansion of road networks and energy services are essential for the revitalization of rural and household economies, such investments must avoid or minimize adverse environmental and social impacts, and hence must be preceded by EIAs and help protect the poor from disproportionately bearing the cost and risks of development.

3. Major Environmental Challenges and Opportunities

Notwithstanding the complex and wide-ranging environmental problems and threats facing Liberia, and despite certain areas of progress over the past several years, the most important environmental challenges and opportunities include:

¹ 1. This balance is echoed by the National Environment Policy, which implores that "ways and means are found to balance national development aspirations and the search for economic growth with a rational exploitation and sound management of the resources (so that) economic development can be sustained in the long run".

Pillar I – Security

- Lack of security over natural resources at the community level and within Protected Areas (e.g. Sapo National Park).
- Absence of a functional mechanism to adequately manage and respond to environmental emergencies and natural disasters (e.g. floods, coastal erosion, etc).

Pillar II - Economic Development

- Rapid deforestation rates estimated at two percent per annum, due to:
 - unsustainable slash and burn agriculture, with decreasing fallow periods
 - illegal harvesting of timber
 - the cutting of trees for fuelwood and charcoal productionThis results in the degradation of habitats (e.g. soil erosion and water pollution) and the depletion of natural resources including wildlife.
- Unsustainable patterns of production, consumption and waste disposal which have proliferated due to the high rates of population growth, urbanisation and the ongoing reconstruction drive. (e.g. recycling and reuse of products).
- Unsustainable use of natural resources including:
 - coastal sand-mining, leading to coastal erosion
 - uncontrolled exploitation of marine fish stocks (by foreign enterprises)
 - unsustainable and uncontrolled harvesting of wildlife for bushmeat
 - conflicts of land use between mining and forestry / subsistence farming
- Significant opportunities for poverty alleviation and economic development by the improved management of Liberia's natural resources.

Pillar III – Governance

- Fledgling environmental governance institutions which remain seriously under-equipped and under-resourced. Specific problems include:
 - inadequate implementing legislation
 - insufficient human resources to ensure enforcement
 - inadequate technical capacity and infrastructure / equipment
 - meagre financial budget for environmental management
 - major gap in environmental data and information management
- Inadequate engagement of communities in the management of natural resources and the local regulatory control of commercial exploitation operations (timber, mining, rubber plantations, fisheries). Similarly, inadequate local involvement in protected areas management.
- Major deficiencies, ambiguities and conflicts in rural land tenure systems undermines the ability of farmers to benefit from valuable natural resources and improve their economic condition as well as provides little incentive for farmers to invest for the long term and use the land sustainably.
- Low awareness of environmental problems and threats and their linkages to poverty, including within high-level government decision-making circles. Conversely, low awareness of the contribution that environment can make to poverty reduction.

Pillar IV – Infrastructure

- Lack of piped water supply, sanitation infrastructure and solid waste management services, particularly in urban centres, which has serious consequences for human health and productivity due to communicable and vector-borne diseases.

4. Goals and Objectives

The environmental vision as defined by the National Environment Policy (2003) is to build a prosperous and peaceful Liberia based on environmentally sustainable and socially equitable economic development. Within this overall context, the key environmental objectives under the PRS for the period 2008-2012 are:

Pillar I – Security

- Improved security for natural resources at the community level and within Protected Areas.

Pillar II - Economic Development

- Establishment of community-based natural resource management initiatives. These should include promotion of joint private-public partnerships (e.g. ecotourism ventures) and developing practical pilot / demonstration projects for environmentally sound technologies targeted at poor households in the following areas: (i) sustainable agriculture (ii) renewable energy (iii) fuel efficient stoves (iv) rainwater harvesting (v) water purification and (vi) shelter construction.
- Management of physical and biological natural resources to achieve sustainability of utilisation.

Pillar III – Governance

- Ensure the strict application of Environmental Impact Assessment (EIA) requirements for all key infrastructure and industrial projects, (including road construction and rehabilitation), to help mitigate and manage their potential negative social and environmental consequences and maximise their environmental and social benefits.
- Mobilise self-sustaining domestic financial resources for environmental protection and management by operationalising the National Environment Fund to support the implementation of environmental laws, environmental monitoring and rehabilitation of degraded areas, including at the county level.
- Land reform to create security of rural land tenure, with a view to helping promote the adoption of sustainable land use management practices and develop a national rural land-use plan.

Pillar IV - Infrastructure

- Strengthen capacity in urban master planning and management. Develop a national Solid Waste Management policy, strategy and regulations, to help ensure effective co-ordination and sustainability of present efforts in the disposal of domestic refuse, clinical waste and toxic waste. The policy should also create the necessary enabling conditions for private sector investment and public engagement in waste management.

5. Key policy issues

Pillar I – Security

- There is a need for mechanisms to be established to improve security for natural resources at the community level and within Protected Areas.

Pillar II - Economic Development

- Effective monitoring mechanisms to ensure that a significant percentage of the revenue generated from timber and mining concessions as well rubber plantations actually reaches and benefits the poor and assists in poverty reduction. These mechanisms should be transparent, regularly publish information on resource extraction and income generated, and include multiple verification procedures to ensure accountable management of resources.
- Rapid and effective implementation of the new FDA policies and strategies for Commercial, Community and Conservation forestry. This will ensure the protection and management of all types of forest, a proper contribution of forestry revenues to national, county and community budgets, and the protection of the non-timber forest resources which contribute to poverty reduction at the community level.
- Need for effective management structures to ensure sustainable utilisation of physical and biological natural resources. These may include land reform to create security of tenure, oversight mechanisms to ensure equitable distribution of revenue generated from forestry and mining concessions, and increased funding for protection by both the Forestry Development Authority (FDA) and the EPA

Pillar III – Governance

- Notwithstanding the transition from relief to development, the application of EIA as required by law should be strictly enforced without exemptions and with adequate monitoring of the developer's implementation of the pertinent Environmental Management Plan.
- There is a need to review the Environmental Policy and the Environment Protection and Management Law (2002) to identify priority subsidiary regulations and/or guidelines for their operationalisation. Priority thematic areas include: (i) sector specific EIA guidelines; (ii) solid waste management guidelines (including strategies for waste reduction, reuse and recycling); and (iii) environmental quality standards.
- Livelihood-related traditional behaviour and resource extraction by the rural population should not be unduly "criminalized" as this may worsen the economic conditions of the poor. At the community level emphasis on balancing regulatory control with the provision of effective extension service for purposes of fostering more sustainable use of natural resources.
- There is a need to develop a self-sustaining financial mechanism for mobilisation of domestic resources to help ensure sound environmental governance. It is therefore proposed that the National Environment Fund, as established under section 45 of the Act Creating the Environment Protection Agency, should be operationalised. Experience from other countries in the region indicates that funds need to be paid directly into the Fund and a transparent accounting system must be established. This needs to be agreed and closely co-ordinated with the Ministries of Finance and Planning and Economic Affairs.

- In order to improve co-ordination and collaboration between sectors, promote transparency and accountability and raise public environmental awareness, access to and dissemination of environmental information should be made mandatory across all government agencies. The collection of environmental data and indicators needs to be integrated within national statistical surveys (e.g. household census). Protocols for environmental reporting, data storage and data exchange should be established. Poverty – environment indicators need to be developed.
- Community-based natural resource management needs to be one of the key building-blocks of the government drive for decentralization, particularly in remote areas. Due emphasis should be placed on local culture, traditional knowledge, participatory approaches, equitable sharing of benefits, gender equality, and the involvement of youth, NGOs and civil society.
- The chronic confusion and ambiguities concerning land tenure, particularly between communal and privately registered ownership, must be resolved. Land reform needs to be based on the principles of equality, decentralization and security of tenure in order to ensure access to resources for the poor, help prevent conflict and promote sustainable land use and management practices.
- There is a need to increase awareness of environmental issues, which can be assisted by creating the necessary enabling conditions and enhancing the capacity of environmental NGOs and media to monitor environmental problems and threats, and establish appropriate channels for reporting.

Pillar IV – Infrastructure

- As the public sector is unable to provide adequate services for solid waste collection and disposal (including toxic, hazardous and clinical wastes), there is a need to create conditions to encourage the private sector to provide such services through open and competitive tendering processes. All environmental sanitation services need to be based on market cost recovery and the application of the ‘polluter pays’ principle.

6. Progress to date

Since 2003, significant and visible progress has been made in building Liberia’s environmental governance framework and reforming natural resources management. Key achievements include:

- 1) Approval of the National Environmental Policy and adoption of two major environmental laws (Environment Protection and Management Law, and the Environmental Protection Agency Act) which came into effect in April 2003.
- 2) Development of a National Biodiversity Strategy and Action Plan.
- 3) Comprehensive assessment of Liberia’s forest resources (Liberia Forest Reassessment) carried out by Fauna and Flora International in collaboration with government partners.
- 4) Active participation in multi-lateral environmental agreements, regional cooperation initiatives and implementation of projects supported by the Global Environment Facility.
- 5) Establishment of the Environmental Protection Agency (EPA) in 2003, which became fully functional with the formation of a Board of Directors and Policy Council in 2006.
- 6) Approval of the Forestry Reform Law in 2006.
- 7) Liberia’s admission into the Kimberly Process Certification Scheme and preparation of a draft Mining Law.
- 8) Publication of Liberia’s first State of the Environment Report in June 2007, establishing a baseline for monitoring environmental conditions and trends.
- 9) EIA administrative procedures developed.
- 10) Preparation of a national action plan and strategy to address land based sources of marine pollution.

- 11) Deployment of environmental inspectors in seven counties by July 2007.
- 12) Establishment of a basic environmental laboratory facility is presently ongoing at the EPA to help monitor environmental conditions and trends and enforce legislation.
- 13) Certification of environmental consultants to conduct environmental impact assessments.
- 14) Establishment of environmental units in government ministries and agencies is currently underway.
- 15) Development of a National Adaptation Programme of Action to Climate Change.
- 16) Draft Integrated Water Resources Management Policy prepared.
- 17) Draft Energy Policy prepared.

7. Environmental Action Plan under the PRS

The following indicates prioritised activities to be carried out during the period 2008-2010:

2008

Pillar I – Security

- Initiate co-ordination between line ministries and agencies, beginning with the EPA inspectors, FDA rangers and the Ministry of Lands, Mines and Energy, to improve the protection of natural resources.
- Development of a disaster risk reduction policy and plan and establishment of an inter-sectoral coordination mechanism.
- Develop an effective system to ban use of small arms, chemicals and explosives in hunting and/or fishing.
- Train security and custom officers at international border crossings to combat illegal trade in commodities of environmental concern, particularly in endangered species (CITES) and hazardous wastes and chemicals (Basel, Rotterdam and Stockholm conventions).

Pillar II - Economic Development

Agriculture

- Develop technical guidance for the agriculture sector to ensure that agriculture policy, particularly for swamp reclamation, takes full account of the economic goods and services provided by wetlands to the poor.
- Develop a social and environmental policy and strategy for the rubber sector to ensure that revenues generated from rubber plantations are adequately invested in affected communities and at the county level.

Forestry

- Carry out pilot projects on community forestry.
- Undertake an economic valuation of the goods and services that the poor derive from forests, including non-timber forest products.

Energy

- Design pilot projects for renewable energy and fuel efficient stoves.
- Develop a strategy for access to modern energy services by the poor

Land Management

- Design pilot projects for sustainable cultivation practices.
- Develop an integrated coastal zone management plan.

Water Resources

- Finalise the integrated water resources management policy and develop an action plan.
- Develop a wetlands (including swamp) management policy and undertake national wetland inventory.
- Undertake economic valuation of the goods and services provided by wetlands to the poor.

Pillar III – Governance

National Environment Action Plan

- Develop a detailed national environmental action plan based on a participatory approach involving a wide range of government and civil society stakeholders.

Funding for Environmental Management

- Conduct the administrative procedures necessary to operationalise the National Environment Fund, and explore feasibility of expanding funding sources from relevant sector activities.

Capacity Building and Awareness for Environmental Management

- Publish sector specific EIA guidelines for infrastructure, forestry and mining (see guidelines already published by the Ghana EPA).
- Conduct periodic workshops to inform and train staff from line ministries, agencies, the private sector and NGOs on their duties and responsibilities under national environmental laws.
- Strengthen the capacity of NGOs and civil society to monitor the implementation of wealth sharing agreements between timber and mining concessions and communities and ensure that funds are channelled towards poverty reduction.
- Deploy EPA environmental inspectors in the remaining nine counties of the country.
- Establish EPA county offices, and equip them to ensure proper functioning.
- Establish Environment Units in line ministries.
- Provide at least six training programmes, workshops and study tours for environmental specialists, legal staff, judges and media, of which at least two to be undertaken in the counties.
- Develop information material to improve environmental awareness for both the government and general public. This should address issues of sanitation, solid and liquid waste management, access to clean water supplies, urbanization, bush meat hunting and energy efficient technologies.

Land Tenure

- Carry out detailed analysis of land tenure issues in concert with the Land Commission.

Pillar IV – Infrastructure

Solid Waste Management

- Develop a waste management policy and enact subsidiary regulations, as required by the Environment Protection and Management Law.
- Include in the above a clinical waste policy and regulations.
- Undertake engineering designs and EIA for the Mount Barclay landfill facility in Monrovia.

- Prepare a plan and technical specifications for the closure of the Fiamah dump site in Monrovia.

Water / Public Health

- Develop an integrated water resources management strategy and road map, to include issues of water supply, sanitation and the control of water borne disease.

2009

Pillar I – Security

- Consider viable options to prevent illegal mining, logging and wildlife poaching in protected areas (Sapo National Park). To be concentrated on communities adjoining protected areas, and possibly including alternative livelihood support projects.
- Train security and custom officers at international border crossings to combat illegal trade in commodities of environmental concern including invasive alien species and living modified organisms

Pillar II - Economic Development

Agriculture

- Carryout scientific assessments and modeling on agricultural to climate change and develop adaptation strategies in response.

Energy

- Implement pilot projects for renewable energy and fuel efficient stoves.

Land Management

- Implement pilot projects for sustainable cultivation practices.
- Develop a Community Based Natural Resources Management Policy.
- Establish a Community Based Natural Resources Management Forum, bringing together communities, government, NGOs and private sector, to provide a platform for dialogue, exchange of ideas and experiences and technical support and co-operation.
- Design and implement community forestry and conservation projects.

Strategic Environmental Assessment (SEA)

- Apply SEA or Sustainability Assessment to national, county and sectoral development plans to ensure that poverty-environment linkages are factored in.

Pillar III – Governance

Capacity Building and Awareness for Environmental Management

- Conduct an environmental awareness raising campaigns.
- Mainstream environmental issues in the education curriculum.
- Promote and support environmental youth clubs/associations.
- Provide at least six training programmes, workshops and study tours for environmental specialists, legal staff, judges and media, of which at least two to undertaken in the counties.

- Develop an easy-to-use technical manual and reporting form for environmental inspectors (see Inspectors' Manual already produced for the Gambia EPA).
- Expand the facilities of the EPA environmental laboratory and develop joint monitoring programmes with other agencies, particularly for water resources.
- Train security and customs officers at international border crossings to combat illegal trade in commodities of environmental concern, particularly endangered species (CITES) and hazardous wastes and chemicals (Basel, Rotterdam and Stockholm conventions).
- Establish an EPA Geographic Information System / Remote Sensing facility to monitor environmental conditions and trends.
- Develop and publish environmental quality standards, as required by the Environment Protection and Management Law.

Pillar IV – Infrastructure

Solid Waste Management

- Develop an action plan for clinical waste management for the largest hospitals.

Water / Public Health

- Design pilot projects for rainwater harvesting and water purification.

2010

Pillar I – Security

- Initiate dialogue and technical co-operation with neighbouring countries on the creation of trans-boundary peace parks.

Pillar II – Economic Development

- Undertake empirical pilot studies on the contribution of environmental resources and services to poverty reduction and pro-poor growth.
- Develop and implement eco-tourism projects.

Pillar III – Governance

- Provide at least six training programmes, workshops and study tours for environmental specialists, legal staff and judges, of which at least two to undertaken in the counties.
- Enhance urban master planning capacity including at the county level.
- Conduct environmental awareness raising campaigns.

Pillar IV – Infrastructure

- Implement pilot projects for: (i) water purification; (ii) rainwater harvesting and (iii) shelter construction.
