

National Forest Management Strategy



Forestry Development Authority

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Objective

The National Forest Management Strategy summarizes the FDA philosophy for managing the national forest endowment. The strategy outlines the FDA approach to forest management, its long-term end-states, or goals, and the Authority's major forest management objectives for the following two years. The specific management actions outlined in the strategy are based on the current best available information and will require continued revision through public scrutiny and field evaluation.

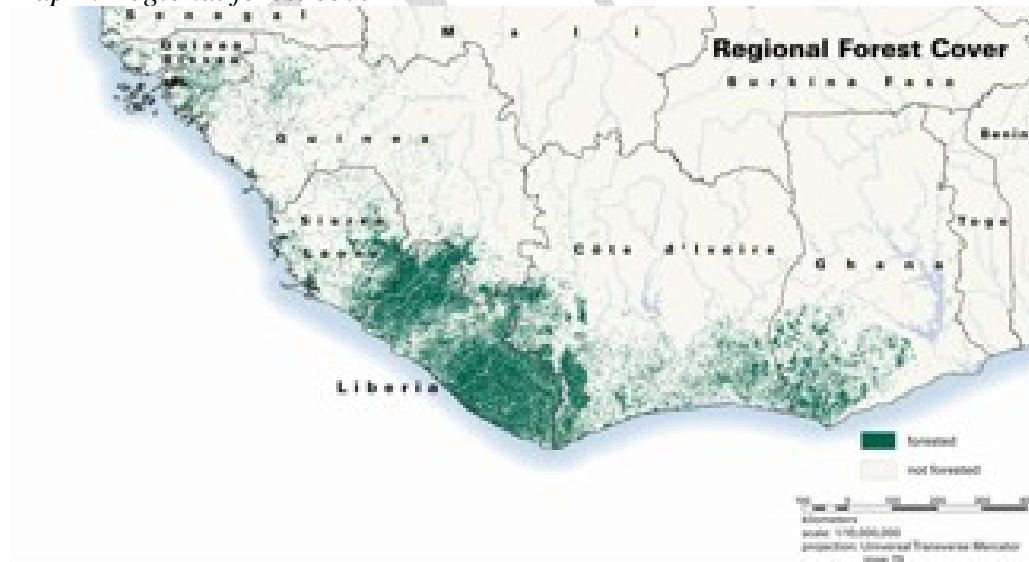
The structure of the document lays out the general policy and legal foundation for the National Forest Management Strategy. The second section explains the Forest Management Suitability Study that provides the analytical, scientific and participatory process that is the basis for the strategy.

The National Forest Management Strategy is a standing document to be updated by FDA management periodically. However, the strategy does identify specific, measurable goals for the next two years.

Context

Liberia is situated within the Upper Guinea Forest, a tropical rainforest belt stretching from Cameroon to Guinea. The total Liberian land area is 9.59 million hectares, of which forests cover about 4.39 million hectares equivalent to 45 percent of the land area¹. Liberia's evergreen forests are in the more humid south, ranging from the Cestos to Cavally Rivers. The deciduous and mountain forests are located in the hills of Northwest Liberia and Mount Nimba.

Map 1: Regional forest cover



Liberia's forests provide a wide range of benefits to the Liberian people and the international community. Forest areas provide habitat for globally important biodiversity and maintain ecological services (such as oxygen production and soil stabilization), enable harvesting of non-timber forest products that many local people depend upon for

¹ This area includes forest classes 3.1 Forest with small agriculture presence, 3.2 Open dense forest, and 3.3 Closed dense forest.

daily subsistence, and provide a significant input to the national budget through commercial forestry development.

The Forestry Development Authority (FDA) is the sole government agency responsible for managing forest resources in Liberia. The FDA uses a “3 C’s, Commercial, Community, and Conservation” philosophy focuses on the management of Liberia’s forests in order to achieve the agency’s overall goal of developing and sustaining the benefits of Liberia’s forest resources.

During Liberia’s period of civil conflict forest resources were mis-managed and revenue generated from the sector were mis-appropriated. As a result, the United Nations Security Council imposed sanctions on Liberia’s timber exports in 2003. Liberia then instituted sweeping reforms of the sector during the National Transitional Government of Liberia and the current administration of President Ellen Johnson-Sirleaf. The current government consolidated these reforms by adopting a new National Forest Policy and passing the National Forest Reform Law in 2006. These reform efforts eventually led to the lifting of sanctions in 2006 and created the enabling conditions for the FDA to improve forest management.

Thus, in this post-conflict, reform-oriented context, this National Forest Management Strategy serves as a guide for the FDA to implement the National Forest Policy, uphold the National Forestry Reform Law, and put into practice the FDA’s 3-C policy to achieve its forest management objectives.

Policy

The aim of the National Forest Policy of Liberia is:

To conserve and sustainably manage all forest areas so that they will continue to produce a complete range of goods and services for the benefit of all Liberians and contribute to poverty alleviation in the nation.

Objectives

In order to achieve this aim, the following specific objectives will be pursued:

1. To ensure that commercial forestry, community forestry and forest conservation activities are integrated and balanced to optimize the economic, social and environmental benefits from the forest resource.
2. To conserve a representative sample of forest ecosystems so that important environmental functions are maintained.
3. To contribute to the national development goals of poverty alleviation and increased food security by increasing the opportunities for forest-based income generating activities.
4. To grant more equitable access to forest resources so that the potential for future conflict is reduced and the benefits from forestry development are shared throughout Liberian society.

5. To ensure that all stakeholders participate in the formulation of forestry policies and in the conservation and management of the forest resource.
6. To maximize the contribution of the sector to income, employment and trade through the development of appropriate processing activities.
7. To ensure that forestry development contributes to national development goals and international commitments (including regional cooperation and trans-boundary issues) and is coordinated with other relevant branches of government.
8. To ensure that activities in the forestry sector (including forest management, plantation development, harvesting, conservation and industrial development) are based on sound scientific and technical principles.

Legal objectives of forest management

The Authority shall exercise its powers under the Forestry Reform Law of 2006 to assure:

- Sustainable management of the Republic's Forest Land,
- Conservation of the Republic's Forest Resources,
- Protection of the Republic's Environment,
- Sustainable development of the Republic's economy, with the participation of and for the benefit of all Liberians, and to
- Contribute to poverty alleviation in the Nation.

To protect the environment, the Authority shall take a precautionary approach to the exercise of its powers under the Forestry Reform Law of 2006. The Authority shall not rely on a lack of full scientific certainty as a reason for postponing cost-effective measures to prevent environmental degradation where there are threats of serious or irreversible damage to the environment.

State of the forest

As of 2004, the most recent study available GIS and Satellite image analysis, Liberia contains 4.39 million hectares of forest. This forest area is classified as 2.42 million closed dense forest, 1.02 million open dense forest, and .95 million agriculture degraded forest. Map 2 depicts the forest cover and classification based on the satellite imaging.

Map 2: Forest cover classification



Forest area has decreased in recent years due to uncontrolled logging and an expansion of land used for agriculture. The annual rate of deforestation is currently estimated to be approximately 12,000 hectares (0.3 percent), while the recorded planting of new forests since 1971 to date has amounted to only approximately 11,000 hectares in total.

At present, commercial activity is minimal throughout the country. Pit sawing activities began immediately after the end of civil conflict in a largely un-regulated environment and has grown to a market size of greater than 120,000 m³ of cut wood and likely double this amount of round logs cut in the forest. The FDA has taken a position of tolerating pit sawing activities until alternative milling operations can begin though this has resulted in the continued proliferation in many areas. Primarily, rural communities are engaged in providing access to forest resources adjacent to their communities for pit-sawing and other forest resource extraction activities such as non-timber forest products and bushmeat. At present the FDA does not have the capacity to regulate wildlife consumption throughout the country.

Despite Liberia's small size, it has a significant amount of biodiversity including: over 2,900 different vascular plants (including 225 tree species), 600 bird species, 150 mammal species, and 75 reptile species. In addition, Liberia accounts for the largest remnant (42 percent) of the Upper Guinea forest of West Africa. Sapo National Park and the East Nimba Strict Nature Reserve are the only exclusive conservation areas in Liberia. Together, these areas total 193,500 hectares, or approximately 4% of Liberia's total forest area and 2% of landmass. Gold mining activities within Sapo National Park continue to threaten the integrity of the area though the FDA has made significant progress over the last several years to improve management of the park. The FDA has identified other forest areas for protected area status, but has not officially proposed the areas to the government.

Forestry sector contribution to the national economy

Historically, the forestry sector has been a strong contributor to Liberia's economy in the form of industrial output, national income, employment and export earnings. For example, the production of forest products accounted for around five percent of Gross Domestic Product (GDP) in the 1980s, rising to 20 percent in the late 1990s. Forest products also accounted for 5-10 percent of export earnings in the 1980s, rising to over 50 percent in 2000.

Forest product trade and production statistics from recent years are somewhat uncertain. However, it is generally agreed that thirty-six forest companies were operating in Liberia in 2002 producing timber exports valued at over USD 100 million (or 60 percent of Liberia's total export earnings) and employing approximately 10,000 people. Rubber plantations have also made a significant contribution to income, employment and exports in Liberia with rubber exports for 2002 values at approximately USD 60 million. Rubberwood is also a locally important source of woodfuel and may potentially be harvested as processed wood when the necessary mechanisms are put in place.

Informal activities, in addition to the contribution of the formal forestry sector to the national economy, also play a vital role in the well-being of many Liberian citizens. Fuelwood and charcoal production employ numerous people and remain, by far, the most important energy sources in the country. Similarly, harvesting and sale of bushmeat and

Non-Timber Forest Products (NTFPs) make a significant contribution to local income and employment while providing a major share of protein in the average diet.

Rapid expansion of log production and export from 2000 to 2003 has not, however, been without problems. Over-harvesting and selective harvesting have caused forest degradation. Similarly, widespread wildlife poaching has degraded biodiversity. Government supervision and implementation of policy, regulations and the forestry law has been weak or inadequate leading to many violations, financial misappropriation, and non-payment of the majority of forest fees.

As Liberia emerges from fourteen years of civil conflict there is an urgent need to improve the livelihood of all Liberians. This urgency has increased the demands placed on the sector at the same time that existing forestry institutions and infrastructure are least capable of responding. The National Forest Management Strategy, therefore, establishes a strategy that meets the need for immediate forest sector rehabilitation and medium term forest management while establishing a long-term vision for Liberia's forest endowment. The strategy reflects the current situation in the sector and the prospects for improving capacity and resources over the next decade. This strategy provides the best path forward to revitalization Liberia's forestry sector while conserving and sustainably managing all forest areas so that they will continue to produce a complete range of goods and services for the benefit of all Liberians.

Forest Management Suitability Study

Objective

The Forestry Reform Law of 2006 requires a National Forest Management Strategy as a pre-requisite to proposing and implementing forest land uses in Liberia. In order to develop this strategy, the FDA conducts a Forest Management Suitability Study that evaluates all forest areas for their relative suitability among various land uses. Principally, the FDA focuses on identifying the most suitable areas for the 3 C categories of Commercial, Conservation and Community. Thus, the objective of the suitability study is to identify forest areas most suitable for a given land management strategy.

Methodology

The FDA, with technical assistance from the US Forest Service and Conservation International, formed a suitability analysis team to conduct this study. This team gathered all available data and organized these data into a forest resource database. The team then collaborated with the Liberian Institute for Statistics and Geographic Information Systems (LISGIS) to incorporate information on human-made elements in the landscape (towns, roads etc.).

The suitability analysis team then convened independent stakeholder meetings for each of the three C's: commercial, community and conservation. During these meetings, stakeholders reviewed the assumptions explained in the previous section and developed a set of weighted parameters for modeling forest suitability. Then, the suitability analysis team developed a suitability model for each of the three C's based on these parameters. The results were then tested to decipher whether one factor unduly influenced the suitability result given the weighting. The team was able to equate the model weightings with those proposed by the stakeholder meetings.

The suitability analysis team then called another meeting with each of the three C stakeholder groups to review the results. Stakeholders commented on the results and provided suggestions to the team on how to improve the resulting maps. The suitability analysis team then used this guidance to refine the model and maps.

Once the independent suitability for each of the three Cs had been finalized, the next step was to identify areas of conflict between the three Cs and "optimize" the benefits. For instance, areas with high suitability for both commercial and conservation management were identified as conflict areas. The team resolved conflict between two land uses, and therefore optimized the benefits, by assigning priority to the land use with the highest relative suitability. For example, if the area was in the top 20% of suitability for logging but in the bottom 60% for other uses, then the area was designated chiefly for logging. If an area was of low priority for both conservation and logging, it was automatically assigned to community use if community suitability was high or to mixed use if all suitability values were low. If an area was highly suitable for both logging and conservation, then the suitability of the surrounding area influenced its relative suitability. Where both conservation and commercial forestry remain equally suitable, the area was allotted to commercial use, recognizing the economic and enforcement realities in Liberia.

The team then revised boundaries of conservation areas to form contiguous protected areas using boundaries easily defined by the landscape such as rivers and roads.

It is important to note that just because an area was most suitable for one use it does not mean it has no value for the other uses. Given that there are few clear laws, regulations and tested systems for community forest management, the team identified most of the area outside of protected areas as multiple use areas rather than specifically designate the area as either community or commercial.

Finally, the suitability analysis team convened one stakeholder meeting for all three Cs during which all of the model results were presented to the entire group. The stakeholders discussed these results and provided additional input to guide the FDA forward. During the final meeting stakeholders approved of these results as the foundation for the National Forest Management Strategy.

Assumptions

To complete the suitability study the FDA assumed the following:

Commercial The FDA and partners developed the following set of assumptions indicating suitability through consultation with various stakeholders and reference from studies in other countries:

1. closed and open dense forest will provide the greatest volume and species value;
2. degraded forests may provide significant value but less than closed and open dense forests;
3. suitability decreased with increasing human population density, which would cause greater forest degradation; and
4. suitability increased with proximity to roads (closer being preferable due to reduced transport costs).
5. Existing protected areas and areas with slopes >30% were deemed as unsuitable for logging.

The team used the following weightings in the model: land cover = 60%, population density = 20%, and roads = 20%. These weightings provided the most conservative estimate of suitability. The area available as suitable could have increased with the inclusion of non-forested areas close to roads and in areas of high population density. However, these areas are generally considered of low value to logging.

Community The FDA and partners developed the following set of assumptions indicating suitability through consultation with various stakeholders and reference from studies in other countries:

- i) proximity to settlements;
- ii) roads, in both cases closer being more suitable;
- iii) land cover, where mixed forest and agriculture is of greatest value, followed by densely forested areas, and finally other cover types; and
- iv) population density, where areas with moderate human density is greatest value, followed by areas of low and finally high density.

The team used the following weightings in the model: population density 10%, distance from roads 40%, land cover type 40%, and distance from settlements 10%.

Conservation The FDA and partners identified the following set of spatial relationships through analysis of seventy-five field transects conducted by Fauna & Flora International,

three rapid field assessments conducted by Conservation International, historical field studies, and consultation with stakeholders:

- i) species density increased with distance from the edge of the forest;
- ii) species density increased with proximity to the ocean; and
- iii) species density increased with distance from roads; yet
- iv) the types of species actually observed throughout Liberia did not vary significantly.

The team used the following weightings in the model: distance from forest edge 78%, proximity to ocean 14%, and distance from roads 8%.

Additionally, Liberia is a signatory to the United Nations Convention on Biological Diversity treaty (ratified November 8, 2000), in which it pledged to “set aside at least 10% of the land area for Strict Protection and 30% of the land area for protection and multiple-use for partial protection”. Thus, since Liberia’s total land area is approximately 9.59 million hectares, the team used a minimum area of 950,000 hectare (or 10%) as the minimum size for the protected area network.

FDA policies, management and planning systems are in the infant stages of development. Therefore, the FDA asks all readers to understand the context of the work outlined in the Forest Management Suitability Study. This study is only based on available data and therefore it is understood that there may be minor inaccuracies. As a result, all land decisions must be verified in the field before decisions are legalized. The FDA will improve the accuracy and detail of management planning systems as more data is available. Finally, it is important to realize that this or any other strategic document is a planning tool and not a final decision making tool.

Results

The final results of the Forest Management Suitability Study reflect input from a wide range of stakeholder groups, the most up-to-date and accurate data available on Liberia’s forests, and a sound analytical framework. Therefore, the resulting land-allocation identifies the best strategy to maximize the diverse benefits of Liberia’s forests while not undermining the resource as a whole or any of its benefits.

The study identified a total permanent forest area of 4.39 million hectares and a non-permanent forest area of 1.32 million hectares. This area is divided into a multiple sustainable use zone, where commercial and community activities are permitted, and a protected area network. Results for these areas are described below according to the 3 Cs.

Commercial:

The study identified 3.41 million hectares for commercial management, 80.6 % of which is suitable for this activity. 85.7 % of this area is also suitable for conservation and 32.2 % was suitable community management.

It should be noted that this forest area could be either managed by communities, through community based management techniques, or by private sector logging companies. 2.49 million hectares within this multiple sustainable use zone were identified for long-term management, or forest management contract allocation. 911,575 hectares within this

multiple sustainable use zone were identified for short-term management, or timber sales contract allocation.

Community:

The study identified eleven target areas for community management, each totaling approximately 5,000 hectares for a total of 52,000 hectares. 98.7 % of this area is suitable for community management. 18.75 % of suitable community areas were also suitable for commercial forestry management. 38.5 % of this area was also suitable for conservation management.

These eleven target areas are only meant to be the proposed first stage in developing fully community-managed areas similar to the philosophy of starting commercial forestry with small contracts as well. It should be noted that suitability for community is consistent with suitability for commercial based on the multiple use strategies and that commercialization could be a community based activity.

Conservation:

The study identified a total protected area network of 1.14 million hectares including 193,500 hectares of existing protected areas. 93.6% of this area is suitable conservation management. 65.4 % of this area is highly suitable for commercial forestry management. 17.6 % of the protected area network is also highly suitable community management. 950,051 hectares of this area is classified as either closed or open dense forest.

Suitability:	Commercial	Community	Conservation
Commercial	80.6 %	32.2 %	85.7 %
Community	18.7 %	98.7 %	38.5 %
Conservation	65.4 %	17.6 %	93.6 %
Multiple Sustainable Use	Total (ha)	FMC/community (ha)	TSC/community (ha)
	3.41 m	2.49	911,575
Conservation	Total (ha)	High suitability (ha)	
Protected area network	1.14 m	1.07 m	

National Forest Management Strategy

Objective

To allocate and manage Liberia's remaining 4.39 million hectares of forest as either forest management contract area, and timber sales contract area, community management areas, and protected area to capture, develop and preserve the wide range of forest resource benefits.

End States

The FDA has established a vision for the ideal status of Liberia's forests in twenty-five years. The following end states provide a outline for measuring progress toward achieving this vision:

- Integrity of 4.39 million hectares of close-dense and open-dense forest is maintained;
- Commercial forestry activities ensure a sustainable production of forest products, provide long term employment, facilitate value-added inputs and industries, and contribute revenue through fees to the central government;
- Community forest management provides equitable access and benefits to local people that includes the production of timber and non-timber forest products, plus the use of forests for other purposes such as: cultural rituals; future farmland and settlement areas; and the protection of sacred sites;
- Conservation management preserves biodiversity and maintains ecological services allowing the natural evolution and function of ecological processes;
- The FDA effectively and efficiently manages forest resources in accordance with the legal framework, guided by science, and with continued democratization of forest resources.

The FDA has first classified all forest land into either permanent or non-permanent future forest cover. Permanent forest areas are those areas in Liberia that will always remain covered with forest. Non-permanent forest areas are those areas that may be converted into other land uses such as agriculture. Thus, the following map depicts the end states by showing the areas that have been designated as either permanent or non-permanent.

Permanent Forest: Lands that will remain as part of the national forest endowment providing a variety of values including sustainable production of timber, non-timber forest products, community usage, tourism, research, or ensure the preservation of priority biologically diverse habitat.
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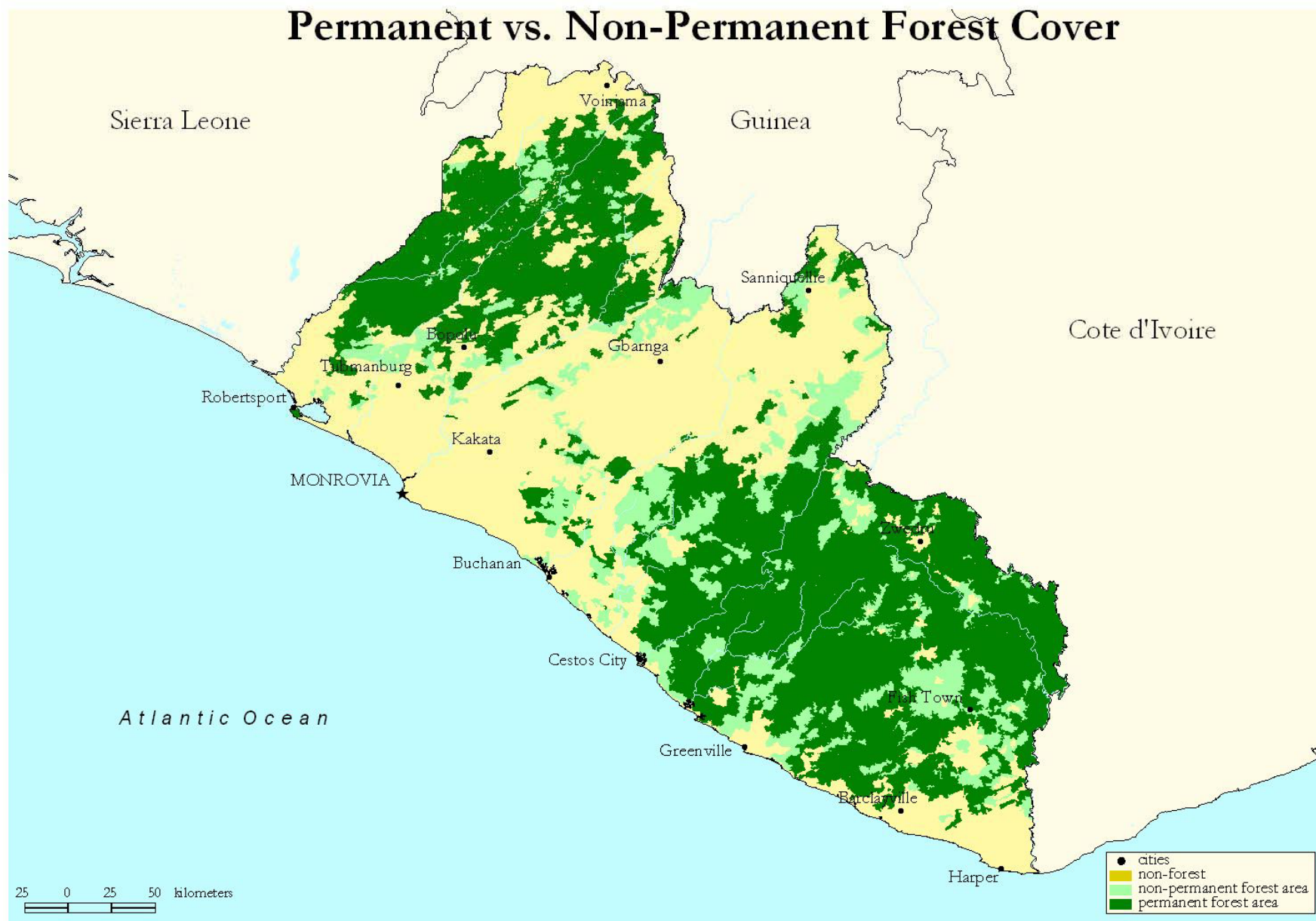
The permanent forest area is then divided into the protected area network and a multiple sustainable use zone to be managed either as community forest areas, timber sales contracts, or forest management contracts. The following map depicts this forest-land allocation strategy. (Map 3)

The multiple sustainable use zone consists of all forest areas outside of the protected area network. These areas will be managed by either communities or private logging companies as communal forests, timber sales contracts, or forest management contracts. Community managed forest areas may be established anywhere within the multiple sustainable use zone (Map 4).

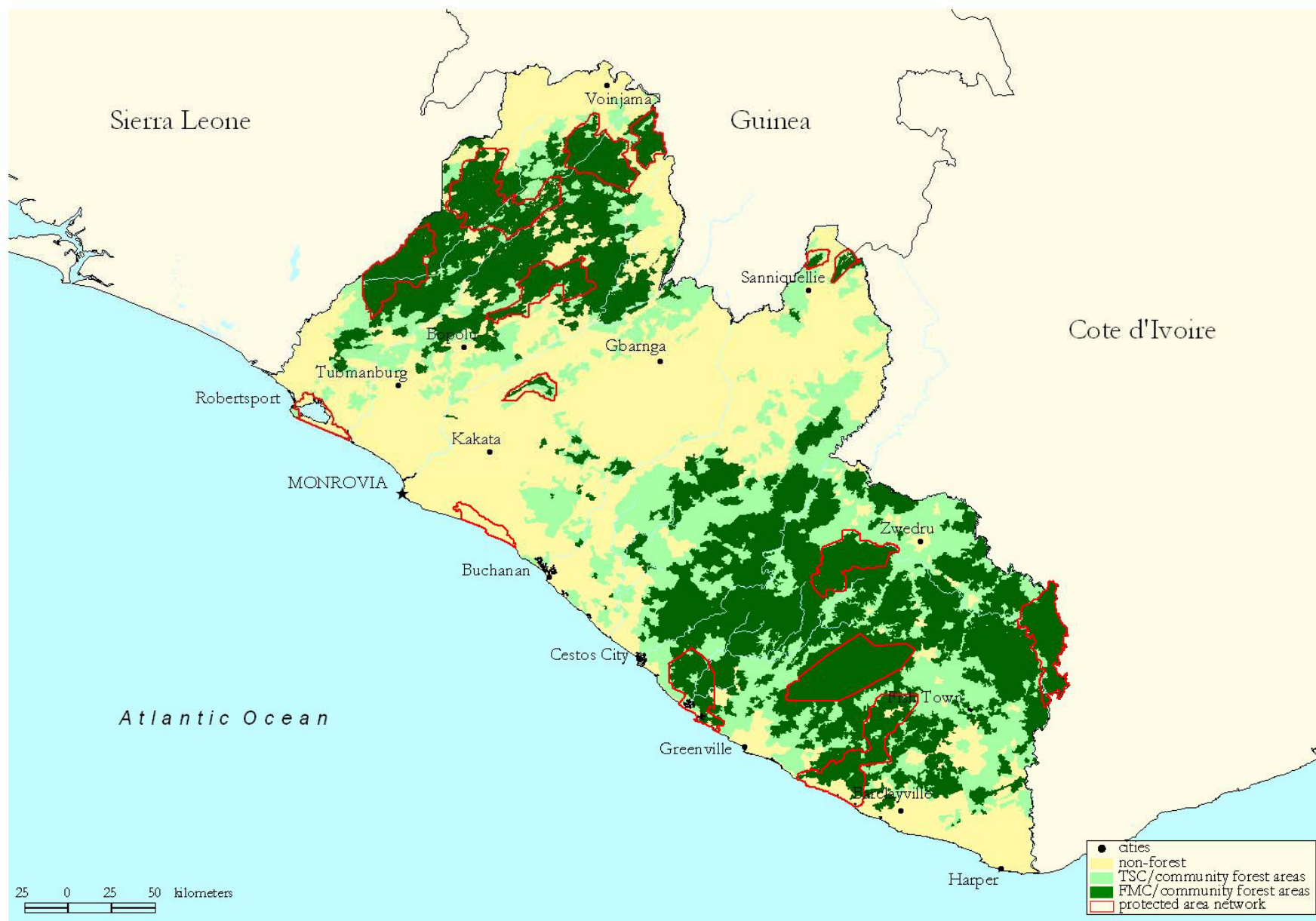
High priority conservation areas will be managed through some type of protected area in accordance with Chapter 9 of the National Forestry Reform Law and IUCN guidelines. The following map shows the total protected area network including the existing two protected areas of Sapo National Park and the East Nimba Strict Nature Reserve (together totaling 193,500 hectares) and an additional 13 protected areas for a total are of 1,141,813 hectares.(Map 7)

The FDA will implement the National Forest Management Strategy through its four technical departments: Commercial, Community, Conservation, and Research & Development. The FDA has established an Objective Statement and set of goals for each department that will govern its activities for the duration of this National Forest Management Strategy.

Map 3: General forest end states



Map 4: National Forest Management Strategy



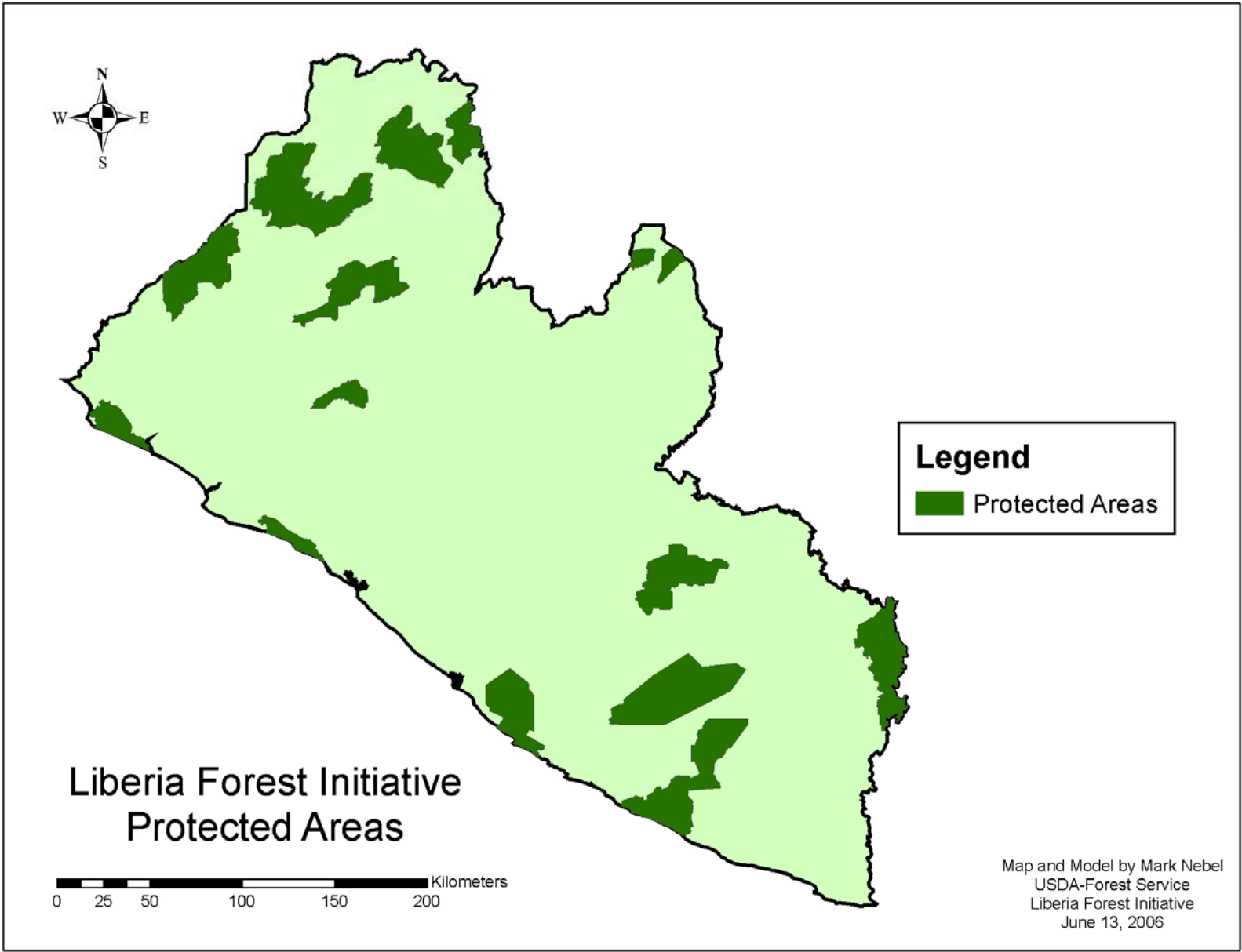
Map 5: Area available for Forest Management Contracts or Community Management



Map 6: Area suitable for Timber Sale Contract or Community Management



Map 7: Proposed national protected area network



Commercial Department

Objective

To re-start and regulate commercial forestry activity in accordance with Liberia's laws and the FDA's regulations and according to the sustainability objectives of the National Forest Policy.

Rationale

Commercial development of Liberia's forest has the potential to provide significant social and economic benefits for the country.

The FDA has developed the National Forest Policy, National Forestry Reform Law of 2006 and accompanying regulations and guide manuals that will serve as the regulatory process for achieving this objective. Only areas that fall into the Multiple Sustainable Use Management areas will be subject to evaluation for commercial activities. All areas will be field vetted and justification of actions will be completed through the writing of justification documents that will be evaluated by the FDA staff, Forest Management Advisory Committee as established in Chapter 4 of the new Forestry Reform Law of 2006, and reconciled with communities in the proposed commercial areas. All justification documents will be available to the public.

Value added priorities: The wood processing industry can be a source of investment and employment in the Liberian economy and should contribute to value added in the sector. However, historic log production has been export-orientated and focused upon a few very high-valued species. This dependence on a limited range of species (and, in recent years, harvesting above the sustainable yield) has affected the sustainability of species-specific forest management.

Few large-scale processing plants existed even in the period prior to the recent civil conflict and a minority of forest concessionaires installed sawmills. Sawmills produced lumber primarily for export with residual production for domestic markets. Only three plywood/veneer plants were constructed but were destroyed or looted along with much of the rest of the installed wood processing capacity.

The wood industry will need to rebuild if the industry is to again provide a significant contribution to the national economy and generate employment as designated by national policy recommendations. It is anticipated that the majority of new investment will be as a result of the allocation of forest contracts. The FDA will promote value added production in the wood industry, increasing the utilization of lesser-used and lesser-known timber species, and ensuring improvements in efficiency in the industry.

Goals

The following goals will help the Commercial Department achieve its objective of re-starting the commercial forest industry based on sustainable forest land use management practices and the rule of law, increasing over the next five years the level of value added exports and local consumption, and increasing labor opportunities for Liberians:

1. Educate relevant government and non-governmental partners and the general public on the new National Forest Reform Law and new FDA reforms.
2. Work to allocate up to 2.0 million hectares of forest into Timber Sales Contracts and Forest Management Contracts with at least 500,000 allocated per year as consistent with the suitability study.
3. Grant and administer Chain of Custody contract and establish a collaborative and participatory relationship with the contractor, government agencies, and affected communities.
4. Work with relevant government agencies (Ministry of Finance, Ministry of Planning and Economic Affairs, Ministry of Internal Affairs) to develop and implement a mechanism to share the benefits from forest contract activities between the government, private sector and forest communities.
5. Implement and enforce a set of rules and procedures for forest management in contracts.
6. Develop and implement, through policy and regulation, incentives to modernize the wood-processing industry including facilitating market access through research and training programs.

Responsibilities

The FDA will be responsible for guiding the nation and industry to achieve most of the above goals. However, the FDA will also collaborate with the Ministry of Finance, Ministry of Internal Affairs, private sector and local communities. The FDA role is to facilitate the developments described above and monitor and control (enforce) the established rules and procedures. In addition, to strengthen the monitoring of operations, forest certification will be encouraged.

Additionally, the following institutions will assist the FDA in achieving these strategic objectives

The NGO community will play a lead role in assisting the FDA to monitor and oversee the commercial industry. However, NGOs can only perform this role if appropriately empowered to collaborate with the FDA and granted access to oversight activities vis-a-vis the industry and the chain of custody management system. The FDA will establish a memorandum of understanding with civil society that frames oversight and monitoring opportunities. The FDA also strongly recommends that civil society organize itself to institute a Forest Management Governance Program that would serve as the focal point for the MOU.

The FDA will work to inform the Ministry of Internal Affairs of all forest management activities in rural areas before they take place and work with the MIA to provide notification to rural authorities of proposed field actions to be taken by the FDA.

The FDA will work with the Ministry of Finance to establish Chain of Custody rules, fees schedules, and ensure that all fees are collected before export permits are made available

to industry. The Ministry of Finance must play a key role in the enforcement and information sharing for these processes to be effective.

Community Department

Objective

To assist communities in realizing the benefits of forest resources and managing forest resources in a sustainable manner.

Rationale

Community forestry is a developing field in Liberia and is identified as an integral part of the sustainable management of Liberian forests. The FDA will develop a Community Rights and Access Law to forward to the national legislature on the timeframe identified in the New Forestry Reform Law of 2006.

For the large number of people who live in rural areas, forests and trees have always been an integral part of their livelihoods. With appropriate management, forests can be used both as a sustainable source of forest products and as areas that are protected for important social and cultural uses. The Liberia Code of Law (1956) permitted the creation of government reserves, native authority reserves, communal forests and national parks yet few native authority reserves and communal forests materialized. Consequently, the government managed the entire forest estate and forest managed never devolved to communities.

Goals

The following goals will encourage local communities to sustainably manage their forests by creating rights, transferring control, and building capacity for forest management within local communities:

1. Develop local understanding and definitions of community forestry.
2. Develop and implement standards on community tenure rights and access.
3. Develop and test models for community empowerment and forest management.
4. Develop, update and implement policies and regulations on bushmeat, wood energy and other non-wood forest products.
5. Empower local communities to establish the rights and responsibilities (with respect to forests) and a framework for community forest management that allows communities to maximize their benefits from all potential uses.
6. Provide extension and technical assistance in community forest management.

Responsibilities

Local communities will be responsible for community forest management. The role of government will be to create an enabling environment for community forest management

and to co-ordinate activities. The government will also facilitate community forest management in collaboration with non-governmental and community-based organizations by providing technical advice and extension services and, in collaboration with other government agencies, enforcing the agreed rights and responsibilities of local communities.

Conservation Department

Objective

To conserve Liberia's forest biodiversity and ecological services through the regulation of wildlife consumption and the creation and management of Liberia's National Protected Areas Network.

Rationale

Liberia contains two of West Africa's three largest remaining rainforest blocks. These blocks contain many plants and animal species that are endemic and whose survival is severely threatened. These forest areas have also been internationally recognized as a "biodiversity hot spot" and, therefore, a priority for global conservation efforts.

Despite its exceptional importance for biodiversity conservation, only 2% of Liberia's landmass and 4% of its forests are contained in two protected areas: Sapo National Park (180,000 ha) and the Nimba Nature Reserve (13,500 ha). Additionally, Liberia is a signatory to the United Nations Convention on Biological Diversity treaty (ratified November 8, 2000), in which it pledged to "set aside at least 10% of the land area for Strict Protection and 30% of the land area for protection and multiple-use for partial protection". Therefore, there is an urgent need to increase protection to international standards sufficient for conserving biodiversity.

Local people rely upon forest resources, such as non-timber forest products and bushmeat, for the daily subsistence. Thus, the conservation strategy must achieve a dual objective of preserving species biodiversity and regulating extractive activities in a manner that fosters sustainable extraction of forest resources. This objective will require a robust and well-managed protected area network, effective enforcement of appropriate hunting and other regulatory measures, and assistance to local communities to improve extractive activities or develop alternative income generating activities. In this vein the FDA should also seek to promote tourism where feasible.

Additionally, given that many of the proposed protected areas are located along Liberia's borders, conservation provides an opportunity to build partnerships with neighboring countries. As a result, the conservation strategy incorporates creation of transboundary "peace parks" that would achieve conservation goals, improve enforcement of borders through FDA deployment to forest areas, and help foster peaceful relations within the sub-region.

Goals

The following goals will help the Conservation Department achieve its conservation objective of conserving Liberia's biodiversity and maintaining resource benefits for local people:

1. Manage existing protected areas (Nimba Nature Reserve and Sapo National Park) totaling 193,500 hectares in accordance with the National Forest Reform Law and FDA regulations.
2. Work to conduct social and biological surveys of proposed protected areas and allocate up to 950,000 hectares to the National Protected Area Network with at least 100,000 allocated per year as consistent with the suitability study.
3. Develop and implement programs, such as the Civil Conservation Corps currently being implemented at Sapo NP, to support income generating activities in rural communities around protected areas.
4. Develop new Wildlife Management Law and raise awareness throughout Liberia on hunting issues including the impact of the law while enforcing the ban on hunting of all protected wildlife species in Liberia.
5. Ensure conservation at the landscape scale to preserve integrity of biodiversity and maintain ecological services as consistent with the 3 C philosophy.
6. Develop collaborative agreements with neighboring countries to establish trans-boundary conservation areas.

Responsibilities

The FDA and non-governmental organizations will be responsible for supporting and implementing the scientific and technical aspects of wildlife and protected area management. Along with community-based organizations, they will support and facilitate community participation in wildlife management and raised public awareness. It is anticipated that the international community will continue to provide financial and technical assistance through projects and trust fund investments.

Research and Development Department

Objective

To provide the FDA and partner organizations with relevant, accurate and un-biased information to assist in forest management decision-making.

Rationale

Accurate information is a critical element of effective decision-making. The FDA depends upon a wide range of information to achieve its forest management objectives. The FDA has adopted a decision making process aimed at maximizing the utility of forest management and contribution to social and economic development in the forested regions. Pre-2005 commercial contracts and protected areas were designed and

implemented. However, the government was not required by law to complete full analysis of the opportunity costs of any given land decision. Furthermore, more advanced policies in forest management point to greater efficiency and benefits to the population by managing forests as an overall landscape and increasing democratic opportunities for decision-making.

As a result of the New Forestry Reform Law of 2006, the FDA must initiate forest land use and suitability analysis before any commercial, community or conservation forest land use activities are proposed. FDA staff will, based on the initial suitability analysis, complete field verification analyses and report the findings of the field inspections in a justification document. All field analysis must include comprehensive social and economic studies, and physical forestry and biodiversity inventories. The FDA must also regularly update the National Forest Suitability Study and other data pertaining to forest management.

Goals

The following goals will help the Research & Development Department achieve its objective of providing accurate, relevant, and un-biased information to the FDA:

1. Develop and maintain an up-to-date and accurate spatial database of forest information and provide timely and accurate information, whether through maps or databases, to FDA's Commercial, Community and Conservation Departments.
2. Develop a coordinated forest science research program with international and domestic universities, companies and other institutions.
3. Redesign the national forest boundaries to more accurately encompass current standing forest areas and settlements.
4. Partner with relevant government agencies, especially the Liberia Institute for Statistics and Geographic Information Systems (LISGIS) to acquire new data on Liberia's geography.
5. Develop research program on non-timber-forest-products and wood-energy issues.
6. Develop, within two years, a national reforestation policy and afforestation strategy as consistent with the National Forestry Reform Law.

Responsibilities

The FDA will work with non-governmental organizations, universities, technical assistance organizations and other government agencies to conduct field research and analyze forest data. The FDA anticipates working closely with conservation organizations to update biodiversity data and refine the protected area network. Similarly, the FDA will work with non-governmental organizations and the private sector to improve information on forest utilization activities ranging from logging to non-timber forest product extraction.

Poverty Alleviation

The FDA will work to develop and implement actions in rural areas that make an appropriate contribution to achieving Millennium Development Goals in terms of poverty reduction, protection of the environment and increasing food security. It is important that actions taken in rural communities protect vulnerable and marginalized groups that depend on forests for their livelihood.

To help alleviate poverty, the FDA will promote job creation through value-added production in urban and rural areas. The FDA will also work to facilitate job transition from illegal pit-sawing and unskilled labor to legally recognized private sector activity employing skilled laborers. By effectively regulating extractive activities, the FDA's conservation strategy will also help maintain the natural resource base that provides for the livelihood of many rural Liberians. The forest sector can potentially contribute to poverty alleviation by conserving the resource base, creating skilled jobs and fostering a legitimate private forestry sector that develops value-added products.

The FDA will continue to work closely with the Ministry of Planning and Economic Affairs and other relevant government agencies to implement the National Development Plan other development strategies to alleviate poverty throughout the country.

Additional Issues

Decision Making Process

To complete the process, the FDA is committed (through the New Forestry Reform Law of 2006 and supporting regulations) to initiate forest land use and suitability analysis before committing to any commercial, community or conservation forest land use activities are proposed (see Annex E: Decision making flow chart). Based on the initial suitability and strategic management goals defined in this document, the FDA staff will complete field verification analysis and report the findings of the field inspections in a justification document. All field analysis must include comprehensive social and economic studies, and physical forestry inventories. If the justification document is approved, the FDA will follow the legal process for committing the forest land to the defined use. For example, commercial contract areas must be tendered through the Public Procurement and Concessions Act process, and Protected Areas will follow requirement defined in law.

Peace Building and Conflict Resolution

The FDA is dedicated to resolving current and future land use conflicts in the forest sector. There are at least three ways in which the FDA will actively contribute to peace building and conflict resolution through forest management:

1. By implementing the forest land use decision making process and including communities in consultations at all levels of land use decision making.
2. Where conflicts exist in forest usage, the FDA should seek to mediate by serving as a third party facilitator or honest broker.
3. Armed militia frequently used Liberia's forest areas for military training and transit points into neighboring countries during Liberia's recent civil conflict. The FDA will work with partners and neighboring governments to establish Peace

Parks to prevent militant groups from using forest area as to foment conflict in the sub-region.

Mitigating Expectations

There are a variety of expectations on the future of the forest sector resulting from the reform process in Liberia, the eager anticipation of the start up of the commercial logging activities, and the desire for devolution of forest management to local government and communities and increased democracy in forest resources management. The FDA will be responsible for providing clear information to the public and, in particular, for educating affected rural communities on policies, law, regulations and the strategies being implemented in the forest sector. Information was often absent or poorly defined and explained to the public due to the lack of transparency and formal communications channels in the past. The lack of public understanding of the rule of law facilitated conflict in regard to natural resources and the centralization of resource decision-making. However, at present the reform process has not yet been sufficiently taught to the public and expectations of natural resources management and their contribution to localized and national economies are potentially misunderstood.

Thus, the FDA will seek to manage expectation in order to avoid a situation of un-clear expectations in the future. The FDA will strive to implement a thorough and rigorous outreach and communications plan and ensure that clear policy statements are available during all field missions.

Ongoing Activities

Currently, the FDA has dedicated itself to positive management of forest based on appropriate tenure rights, legal security for investments, and access and ownership rights. However, the country is currently working to revise policies and laws on tenure and community rights. There is a need to continue collecting additional data that will allow for greater accuracy in decision-making. Therefore, not all policies can be fully addressed in this document. The FDA will continue working toward several subtasks previously defined in the National Forest Management Strategy and in collaboration with relevant government agencies and partner organizations to ensure cohesion of FDA activities and policies with other policies.

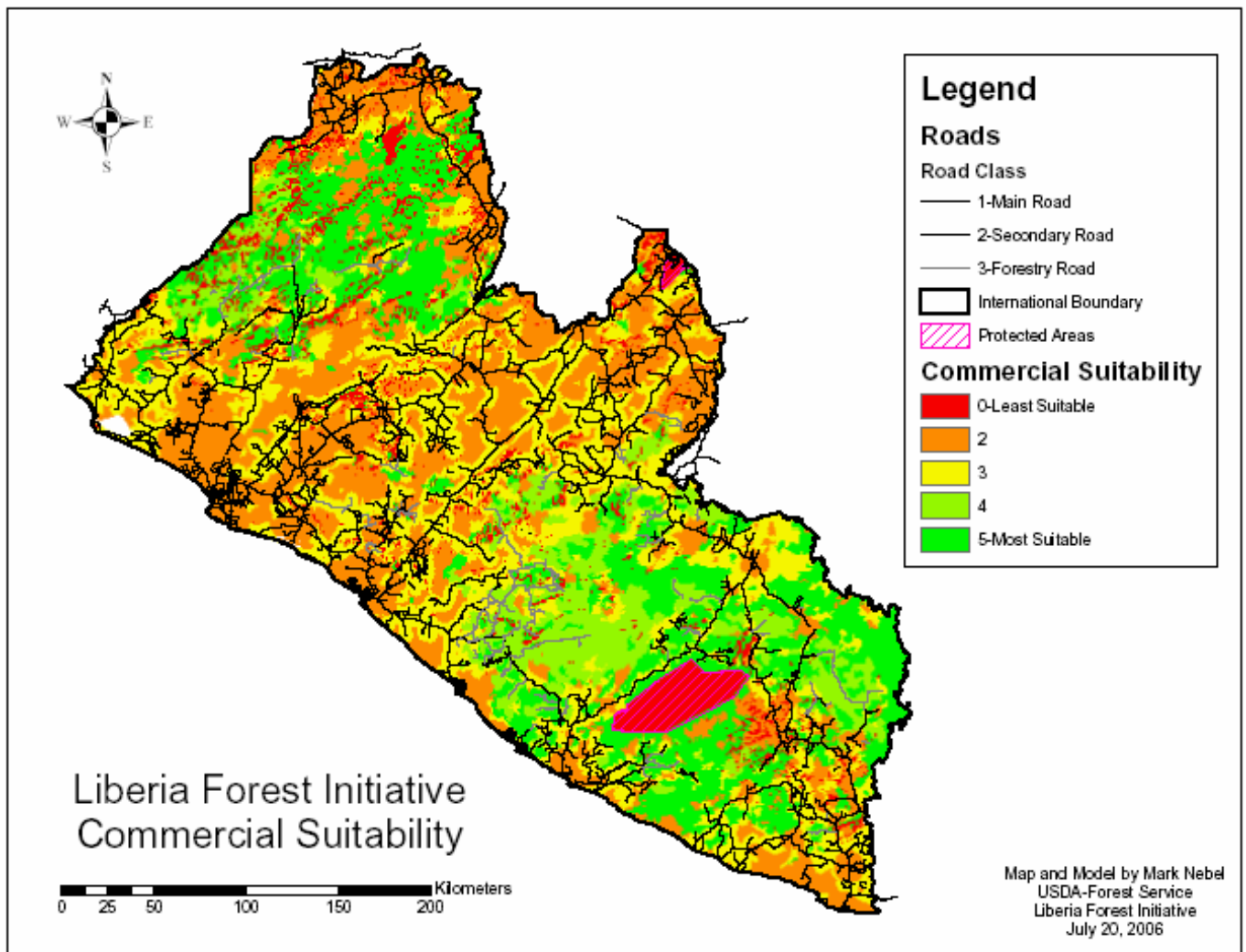
Some of the sub-tasks that must be addressed are:

- participate in and incorporate future land tenure commission policies and decisions into the National Forest Management Plan. The GRC has created a Land Tenure Steering Group that will work to resolve some of the pressing and long term land tenure and land reform issues facing the nation.
- validate and geographically verify metes and bounds of all tribal and deeded lands
- collaborate with relevant government agencies to integrate national agricultural and mining strategies into the National Forest Management Strategy.

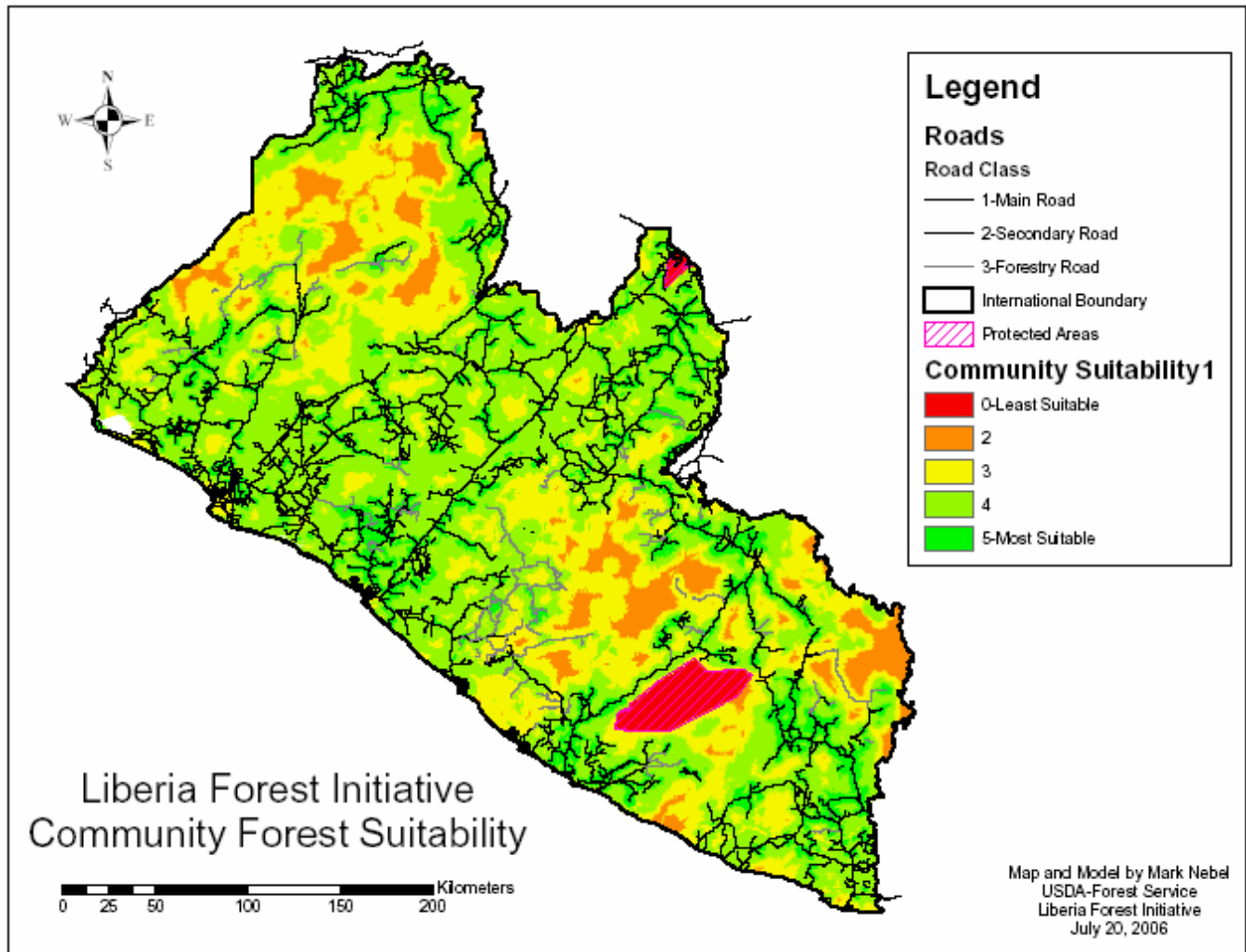
Annex A: Forest Cover and Usage Summary Chart

Forest Class or Proposed Forest Usage	Surface area available (hectare)	Percentage of total land mass
Total forest land surface area	5,705,559	59%
Non-forest area	3,885,530	41%
TOTAL	9,591,000	
Forest Classification		
2.3 Mixed agriculture and forest area	1,317,873	14%
Non-permanent forest total	1,317,873	14%
3.1 Agriculture degraded forest	949,615	10%
Closed and Open Dense forest (3.2, 3.3)	3,438,071	36%
Permanent forest total	4,387,686	46%
Forest Management Strategy		
Area available for TSC or community forest area	911,575	10%
Area available for FMC or community forest area	2,498,908	26%
Proposed protected areas	948,313	10%
Current Protected area coverage	193,500	2%
TOTAL		
Other Classifications		
Permanent proposed forest cover	3,438,071	36%
Non-permanent proposed forest cover	2,267,488	24%

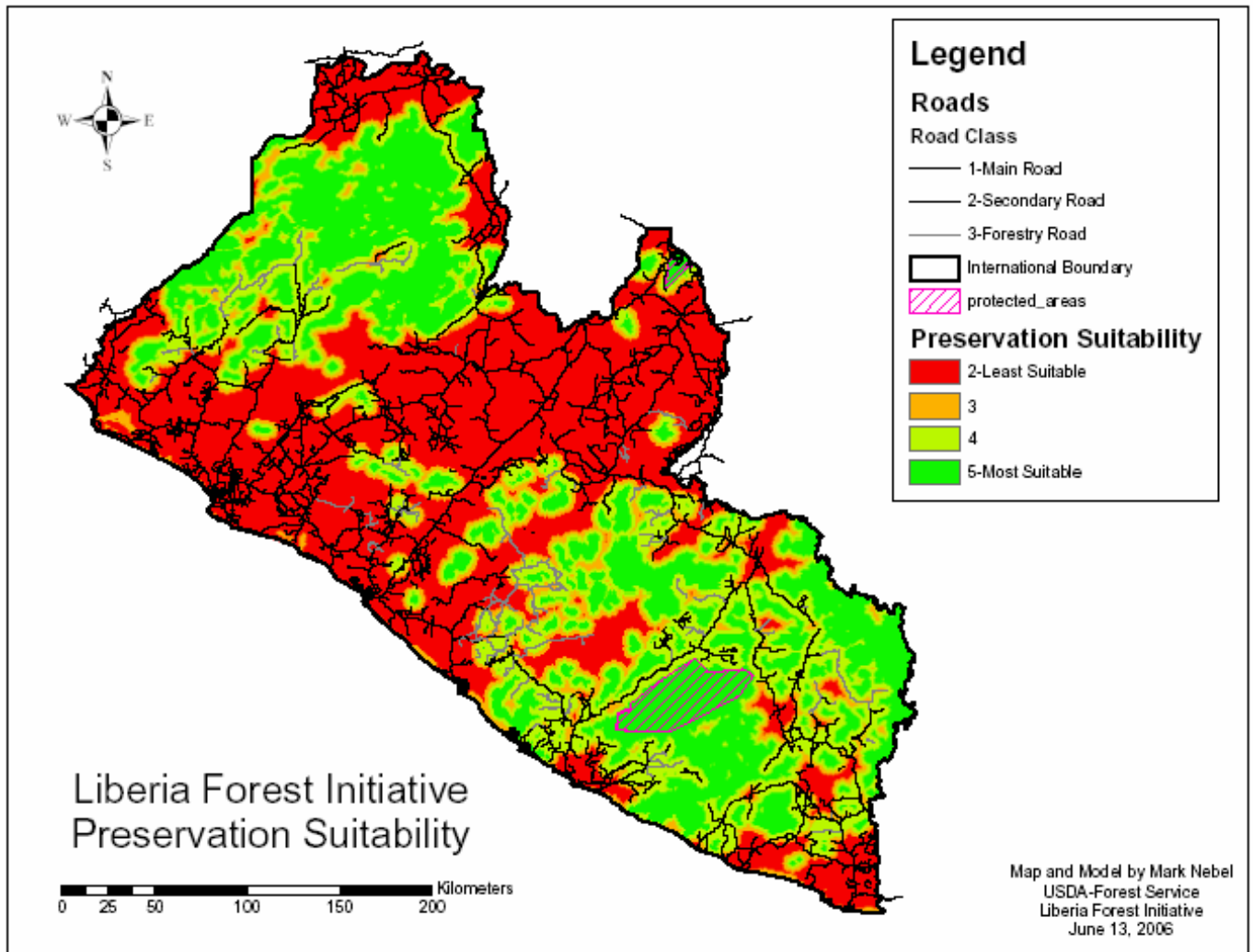
Annex B: Commercial suitability map



Annex C: Community suitability map



Annex D: Conservation suitability map



Annex E: Decision making flow chart

