

Forestry Department

Strategic Forest Management Plan

2009 – 2013

Contents

From the Conservator	3
Management Principles.....	4
National Development	4
Public Sector Modernisation.....	4
Forest Legislation.....	5
International Conventions and Forestry Principles.....	5
Ecosystem Services.....	6
Growth of the Private Forestry Sector	7
Strategic Planning	7
Objectives and Strategies for Fiscal Years 2009 – 2013	9
Strategic Objective 1. Build the Forestry Department as an Efficient and Effective Service Delivery Organization.....	11
Strategic Objective 2. Increase Participation of the Private Sector and Non-Government Organisations	14
Strategic Objective 3. Increase Community Participation and Public Awareness	16
Strategic Objective 4. Develop and Implement Forest Management Plans.....	18
Strategic Objective 5. Maintain and Restore Forest Cover.....	20
Implementation Process	24
Planning	24
Implementation	24
Monitoring	25
Adjustment.....	25

From the Conservator

The Forestry Department is committed to our mission to manage, protect and conserve the country's forest resources, in accordance with national environment policies, for the benefit of present and future generations. The management of forests on a sustainable basis is essential to protect watersheds, conserve biodiversity, and to maintain and increase the economic benefits that forests provide. The Strategic Forest Management Plan 2009-2013 underscores the Department's commitment, as it articulates the current state of our forest environment as well as sets targets by which our performance can be measured.

Jamaica's forestry sector is faced with the fundamental challenge of balancing the supply of environmental and economic services from forests. We must meet these potentially opposing needs in a carefully balanced way. This requires providing access to, and socio-economic benefits from, natural resources, whilst at the same time maintaining the integrity and equilibrium of forest ecosystems to ensure sustainability, protecting biodiversity and mitigating environmental risks.

The Department continues to view partnership as one of the key strategies to effect sustainable forest management. Effective communication, among all government agencies holding responsibilities for management of public lands, is vital to the protection of forests island-wide. Similarly, partnerships between the Forestry Department and non-government environmental organizations, sharing common goals and objectives, serve to promote forest management and conservation. Collaboration with out international partners has and continues to benefit the Department through capacity building and technical support. We continue efforts to engage and increase the participation of private landowners and investors in development of the forestry sector. The deepening of such a partnership holds exciting potential for the forestry sector over the next five years. The expanding participation of local communities living in or adjacent to forests is essential to forest conservation, as is broad national support based on widespread awareness of forest values to society.

We are determined to build the Forestry Department as an efficient and effective organization. Consistent with the intent of public sector reform by the Government of Jamaica, the complex challenge of sustainable forest management requires the lead forestry agency to be a performance-based institution with improved service performance, efficiency gains and focus. But we need your assistance. We invite you to look for ways in which you can help us with conservation and stewardship of our Nation's forests. Together we can ensure that Jamaica remains the "land of wood and water".

Marilyn Headley
CEO and Conservator of Forests

Management Principles

Strategies for managing Jamaica's forests are based on the principles outlined below. These principles have guided the development of this Strategic Plan, and will continue to guide its implementation.

National Development

Management of Jamaica's forests is an essential component of national development. It is guided by the principles forming the basis of the country's 25-year National Development Plan – *Vision 2030 Jamaica*, which is aimed at positioning Jamaica to achieve developed country status by 2030. These principles are:

- Jamaica's transformation must have people at the centre of its development;
- Transformation should be directed by an over-arching vision for the society, buttressed by strong, extra-ordinary leadership and guided by a cohesive and comprehensive development plan;
- Sustainability – integrating economic, social and environmental issues;
- Fostering balanced development in rural, urban and regional areas;
- Equity – ensuring that the Plan facilitates equality of opportunity and equal rights;
- Social cohesion and partnerships.

Consistent with these principles, strategically planned forestry development will contribute to the vision by:

- Increased participation of communities, placing those people most affected by, or dependent on, forests at the centre of forestry development;
- Strong leadership and organizational management achieved by transformation of the Forestry Department as already initiated under the Public Sector Modernization Vision and Strategy;
- The practice of sustainable forest management, balancing economic, social and environmental values;
- Fostering rural development whilst improving the quality of life for all Jamaicans;
- Providing opportunities for equitable participation in the management, conservation and enjoyment of forests;
- Building partnerships between government, private sector and non-government organizations (NGOs) based on shared goals and values.

Public Sector Modernisation

Guiding principles for reform of the public sector are outlined in the Public Sector Modernisation Vision and Strategy for 2002-2012. Sustainable development within the Public Service is guided by three key principles:

- Integrated and coordinated policy making to ensure that all areas work together towards the same goals;
- Full accounting for costs;
- Collaboration between various segments of society.

Under the Government of Jamaica's Modernisation Programme, Performance Based Institutions are being developed to facilitate:

- More efficient and effective delivery of services to customers;
- Greater focus on realization of priority outcomes;
- Accountability for performance and service delivery.

The Forestry Department has been designated for transition to a Performance Based Institution in the form of an Executive Agency. As an Executive Agency, the Forestry Department will:

- Provide a safe and healthy environment for customers and staff;
- Provide a rewarding working environment for staff that enhances job satisfaction and rewards improved customer satisfaction levels;
- Monitor customer needs with the aim of improving the reliability, quality and accessibility of services;
- Discharge its functions with due regard to efficiency and economy, and the financial objectives and performance targets that it has been set.

Forest Legislation

The Forest Act, 1996 provides the legal basis for the organisation and functioning of the Forestry Department. It specifies mandatory requirements for:

- Declaration and purpose of forest reserves and forest management areas;
- National and local forest management planning;
- Inventory and classification of forest lands;
- Appointment and function of forest management committees;
- Determination of allowable cut;
- Establishment of nurseries and provision of seedlings;
- Enforcement of forest protection measures.

International Conventions and Forestry Principles

Jamaica is party to the three major environmental conventions emerging from the United Nations Conference on Environment and Development ("Rio Summit" of June 1992). Forest management and conservation activities are essential components for meeting the objectives of all three, by:

- Reducing the rate of biodiversity loss (Convention on Biological Diversity);

- Maintaining and measuring the role of forests as carbon sinks (Framework Convention on Climate Change);
- Prevention of land degradation and drought (Convention to Combat Desertification).

Jamaica is an active member of the United Nations Forum on Forests (UNFF), which was established to promote "... the management, conservation and sustainable development of all types of forests and to strengthen long-term political commitment to this end..." based on the Rio Declaration and other key principles and milestones of international forest policy. UNFF members are agreed on four shared global objectives on forests to:

- Reverse the loss of forest cover worldwide through sustainable forest management (SFM), including protection, restoration, afforestation and reforestation, and increased efforts to prevent forest degradation;
- Enhance forest-based economic, social and environmental benefits, including by improving the livelihoods of forest-dependent people;
- Increase significantly the area of sustainably managed forests, including protected forests, and increase the proportion of forest products derived from sustainably managed forests; and
- Reverse the decline in official development assistance for sustainable forest management and mobilize significantly-increased new and additional financial resources from all sources for the implementation of sustainable forest management.

Ecosystem Services

Jamaica's forests play a vital role in protecting and conserving water, soils and biological diversity. These services are often not valued in the market place, but are recognized as crucial to national development and to meeting international commitments.

Owing to the mountainous and rugged nature of the country, a large proportion of the forest estate has a primarily protective function, conserving water supplies and reducing erosion and flooding. Increases in extreme climatic events such as hurricanes, predicted to result from climate change, add urgency and importance to recognition of the role of forests in hazard risk reduction.

Like other parties to the Convention on Biological Diversity (CBD), Jamaica is committed to a significant reduction of the rate of biodiversity loss as a contribution to poverty alleviation and to the benefit of all life on Earth. It's obligations under the CBD included development of a national Biodiversity Strategy and Action Plan, and a Protected Areas System Master Plan.

The National Biodiversity Strategy and Action Plan (July 2003) has a number of goals consistent with the CBD, including to conserve Jamaica's biodiversity and promote sustainable use of biological resources. It identified eight principles showing commitment to transparency, behavioural change, respect for local and traditional knowledge, resource protection, local management, the precautionary approach, use of appropriate management tools, and sectoral integration.

The 1997 Jamaica Protected Areas Policy defines a protected area as “an area of land or water that is managed for the protection and maintenance of its ecological systems, biological diversity and/or specific natural, cultural and aesthetic resources”. Jamaica’s Protected Areas System Master Plan will serve as the primary national policy document for defining the coverage and strengthening management of protected areas. Priorities for protecting and designating Forest Reserves will be aligned with this Plan.

Growth of the Private Forestry Sector

While recognizing that the first priority of forest management is to safeguard existing forest ecosystems for their watershed and biodiversity values, national demand for products from Jamaica’s forests must also be addressed. Strategic emphasis will be placed on increasing the sustainable production of wood from accessible plantations environmentally and economically suitable for harvesting, and encouraging the development of such plantations on suitable private lands, thereby reducing the exploitation pressure on natural forests and sensitive areas.

The private sector has more land suitable for commercial forestry, and a greater capacity for realizing economic benefits from forests, than does the government. Partnerships to increase the participation of private land owners and investors in development of the forestry sector are therefore essential.

Strategic Planning

Strategic planning is an essential and germane feature of the Forestry Department’s transformation to Executive Agency status.

The National Forest Management and Conservation Plan (NFMCP) was approved in 2001. The document describes in detail its policy and legal framework, classification and inventory of forest lands, the forestry sector, forest management constraints, forest values and goals, and a wide range of implementation strategies and activities. The Forest Act requires the Conservator of Forests to review, and amend as necessary, the NFMCP at intervals not exceeding five years. During the review the Conservator concluded that, while the fundamentals of the Plan were still applicable, amendments and a renewed focus were required for the implementation of the strategies.

This conclusion led to the adoption of a strategic planning approach that involved:

- Systematic prioritization of efforts and activities that will lead to the achievement of the Forestry Department’s mission and goal;
- Identification of strategies that:
 - State what must change to achieve the organization’s objectives;
 - Establish an order for activities;
 - Are aligned to achieve strategic objectives;
 - Provide communication and direction;
 - Allow everyone to pull together in a focused manner;
- Performance reporting based on measures that are SMART i.e:

- Specific;
- Measurable;
- Accountable;
- Results-orientated;
- Time-bound.

Application of these principles resulted in identification of the prioritized objectives, desired outcomes, performance measures, targets and strategies described in the following pages.

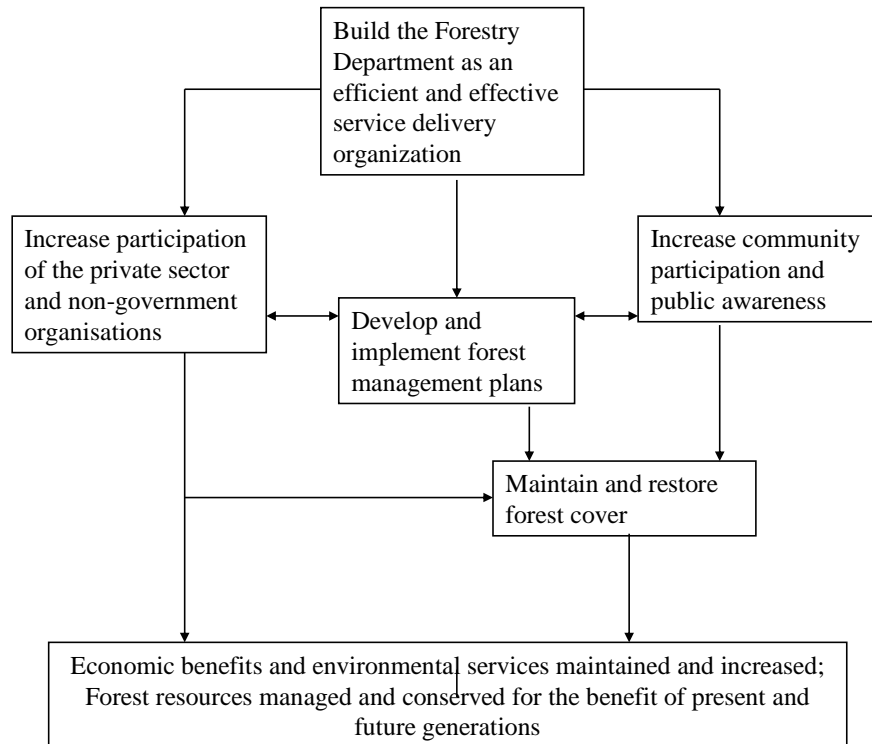
Objectives and Strategies for Fiscal Years 2009 – 2013

Extensive consultations leading to the modernization of the Forestry Department and the development of this Plan have resulted in identification of the following strategic objectives as key to addressing the fundamental goal and challenge over the next five years.

- ***Build the Forestry Department as an efficient and effective service delivery organization.*** Consistent with the intent of public sector reform by the Government of Jamaica, the complex challenge of sustainable forest management requires the lead forestry agency to be a performance-based institution with improved service performance, efficiency gains and focus.
- ***Increase participation of the private sector and non-government organizations.*** Much of the existing forest cover, land requiring restoration of forest cover to maintain environmental integrity, and land suitable for commercial forestry or agro-forestry is privately owned or otherwise outside the direct control of the Forestry Department. Conservation of these areas plus the realization of economic benefits from forest products can be achieved only by substantially increased involvement of the private sector and NGOs.
- ***Increase community participation and public awareness.*** The participation of local communities living in or adjacent to forests is essential to forest conservation, as are the support and awareness of the broader public. Both groups will benefit from a properly managed national forest estate. Both are subject to the catastrophic environmental risks associated with forest destruction.
- ***Develop and implement forest management plans.*** While local forest management plans developed with public input are recognized as necessary, previously used planning approaches have been excessively time consuming and have failed to meet legislated requirements or produce a consensus for action. New and different planning strategies will therefore be applied over the next five years, both to the conservation of natural forests and the development of forest plantations.
- ***Maintain and restore forest cover.*** Forests play a crucial role in protecting watersheds and conserving biodiversity. Watershed protection is inextricably linked to soil conservation and disaster risk reduction. Failure to maintain and restore forest cover, particularly on steep slopes and in critical watershed areas, will (and already does) have disastrous consequences. We must therefore implement measures and strategies to reduce and compensate for deforestation, and to restore degraded areas. Fulfillment of this objective is dependent not only on such strategies, but achievement of all four of the preceding objectives listed above.

Figure 1 displays how the objectives relate to one another and are all part of an integrated management system, ultimately resulting in services from forests being maintained and increased for the benefit of both present and future generations.

Figure 1. Integration of Objectives



Desired outcomes, performance measures and targets, and the means and strategies for achieving them, are described for each objective in the following text. Objectives, outcomes and performance measures are numbered for reference and tracking purposes only. Note that the numbering does not imply priority or operational sequence. All are essential to achievement of the ultimate goal, and strategies for all objectives will be implemented concurrently.

Strategic Objective 1. Build the Forestry Department as an Efficient and Effective Service Delivery Organization

The Forestry Department has the lead responsibility for the management and conservation of Jamaica's forests. Its functions are aimed at managing forests on a sustainable basis to maintain and increase the environmental services and economic benefits that they provide. The effectiveness and efficiency of the organization will ultimately be measured by the quality of the forests it manages, and achievement of the overall goal of sustainable forest management and conservation. However, functioning of the Forestry Department as an efficient and effective service delivery organization is prerequisite to achievement of the overall goal and all the associated objectives and performance targets. It will therefore be given high strategic priority during the next five years.

The Forestry Department is in the process of transformation into an executive agency. As an executive agency in transition it will operate in accordance with prescribed systems, policies, procedures and controls that must be in place for full executive agency status to be granted. The guiding scheme of management, consisting of a Framework Document, Modernization Plan, Medium-term Financing Plan, and Performance Agreement, already articulates detailed plans for creating an efficient and effective performance-based institution. These plans are reflected in the measures and strategies outlined below.

Over the next five years, building the Forestry Department as an efficient and effective service delivery organization will focus on the following desired outcomes:

- Developing well-trained and customer-focused staff;
- Providing high-standard technical and policy services, information and advice to customers and partners involved in forest management and conservation;
- Appropriate authorization of forestry activities and ensured compliance with forest legislation.

Outcome 1.1. Well-trained and customer-focused staff

a. Performance Measure: Number of staff hired in accordance with the approved Forestry Department Modernisation Plan.

2008 Baseline: 176 total; 2010 Target: 274 total.

b. Performance Measure: Percentage of staff receiving orientation or training specified in a formal Staff Training and Development Program.

2008 Baseline: 0%; 2013 Target: 100%.

Outcome 1.2. Provision of high-standard services, information and advice

a. Performance Measure: Number of technical and field services delivered.

Baseline and targets to be specified in corporate and annual business plans.

- b. Performance Measure:** Number of policy or technical reports and research papers published.

2001 - 2008 Baseline: 5; 2009 - 2013 Target: 5 (additions or replacements).

- c. Performance Measure:** Number of manuals, brochures, or notes explaining operational procedures or applications of research findings made available.

2001 - 2008 Baseline: 25; 2009 - 2013 Target: 10 (additions or replacements).

- d. Performance Measure:** Percentage of recreation sites maintained to standard.

Standard, baseline and target to be developed during the first two years.

- e. Performance Measure:** Customer satisfaction survey.

Baselines and targets to be established following survey design and analysis of trends over the first four years.

Outcome 1.3. Authorized forestry activities and compliance with forest legislation

- a. Performance Measure:** Percentage of requests for licences and permits responded to in a timely manner.

Baseline: not established; 2013 Target: 100%.

- b. Performance Measure:** Number of forest officers deployed to implement approved patrol plans.

2008 Baseline: 31 wardens (no formal plans); 2010 Target: 40 rangers;

- c. Performance Measure:** Number of inspections made annually of authorized activities and areas subject to illegal activities.

Target to be developed within the first year.

- d. Performance Measure:** Number of incidences of non-compliance detected

Target to be developed by analysis of trends during the first four years.

- e. Performance Measure:** Number of incidences of non-compliance resolved satisfactorily through prosecution or other remedy.

Target to be developed by analysis of trends during the first four years.

Means and Strategies for Accomplishing Objective 1

- Incorporate, on an annual basis, the objectives, performance measures, targets, means and strategies identified in this Strategic Forest Management Plan, into the Department's Corporate Plan, Annual Business Plan and annual budget, and into the associated monitoring, reporting and audit processes stipulated in the Framework Document. (This strategy is further elaborated below under "Implementation Process".)
- Select, hire, train and equip staff in accordance with a Human Resources Manual developed as required under the Forestry Department Modernisation Plan.

- Implement the Performance Management and Appraisal System (PMAS) as required by the Government of Jamaica's performance framework for Executive Agencies and as specified in the Forestry Department Modernization Plan.
- Define forest reserve patrol plans and activity authorization procedures, and ensure adequate transportation, communication and equipment resources are provided for their implementation.
- Support directed forest research with the necessary specialized staff, consultants and equipment.
- Improve information transfer from science / technology specialists to operations / public relations personnel and customers, using manuals, brochures or notes to explain applications.
- Develop clear standards and targets for the business of managing forest recreational facilities.
- Develop a system to assess customer satisfaction for all customer-related services.

Strategic Objective 2. Increase Participation of the Private Sector and Non-Government Organisations

Given the right incentives, the private sector has a much greater capacity to meet national reforestation requirements than any government agency. The availability and general productivity of private land offers much more potential for economic reforestation than does Crown land. The 2001 National Forest Management and Conservation Plan (NFMCP) noted that, of the 69,244 hectares of forested or partially forested land identified with reforestation potential, only 2,190 hectares are within forest reserves. The majority is on private land. More land has since become marginal or idle for agricultural use as farmers struggle with global competition and other problems. Growing trees can provide farmers an alternative or supplementary viable use for such lands. Jamaica enjoys very high site productivity relative to many timber-producing nations.

Notwithstanding the strong reasons for encouraging private forestry in Jamaica, such a radical shift in investment and land use is unlikely to happen quickly without incentives. Significant progress has been made in engaging the private sector and non-government sector since approval of the 2001 NFMCP. Over the next five years, increased participation of landowners in generating and maintaining forest benefits will be encouraged by improved incentives for maintaining existing forest and for establishing or restoring tree cover.

Outcome 2.1. Improved incentives to private land owners and non-government organizations for maintaining existing forest and for establishing or restoring tree cover

- a. Performance Measure:** Number of financial incentives developed and agreed upon.

Baseline and targets to be defined.

- b. Performance Measure:** Number of financial incentives utilized.

Baseline and targets to be defined.

- c. Performance Measure:** Production of seedlings increased and meeting specified quality standards.

Baseline and targets: see Performance Measures 5.3.a and 5.3.b.

Outcome 2.2. Private sector and non-government organizations supporting and practicing sustainable forest management and conservation

- a. Performance Measure:** Number of hectares of private lands designated as forest reserves or forest management areas.

2013 Target: to be developed following identification of candidate areas.

(See also Performance Measure 4.3.b.)

- b. Performance Measure:** Number of hectares planted per year by private landowners and NGOs.

2008 Baseline: not known; *2013 Target:* 560 hectares (subject to improved incentives).

Means and Strategies for Accomplishing Objective 2

- Improve communication and awareness of existing incentives for establishing and maintaining forests; develop and maintain a well-documented incentives “package” for posting on Forest Department website and responding to enquiries.
- Recommend, and seek agreement between government, industry and NGOs on, additional financial incentives for establishing tree crops on suitable bare land.
- Develop yield predictions covering a wider range of species and sites applicable to private lands, and support with site visits and cost-benefit analysis, to increase justification and buy-in for investment and incentives.
- Amend legislation and/or guidelines as required to implement recommended incentives.
- Promote private sector support and financial donations by targeting beneficiaries and users of forest resources with publicity campaigns, meetings and site visits.
- Train NGOs and private land owners to manage forestry and conservation projects.

(Note: strategies for improving seedling production and distribution are described under Objective 5.)

Strategic Objective 3. Increase Community Participation and Public Awareness

The participation of local communities living in or adjacent to forests is essential to forest conservation. The formation of Local Forest Management Committees (LFMCs) is provided for by the Forest Act (1996) and was initiated in 2000. The specific functions of LFMCs include:

- Monitoring the condition of natural resources in the Committee's area;
- Advising the Conservator on matters relating to the development of local forest management plans;
- Assistance in the design and execution of conservation projects in the area; and
- Other functions as may be identified by the Committees themselves and are provided for under the Forest Act (1996).

The LFMC initiative will be expanded during the next five years to create fully functioning committees representing the variety of community interests for all the main areas identified as having priority for forest conservation.¹

The general public throughout Jamaica, as well as local forest communities, stands to benefit from a properly managed national forest estate and to lose from catastrophic environmental risks associated with forest destruction. Awareness of these benefits and risks will be essential to the success of forest management and conservation, and will be increased during the next five years by an expanded public education effort. It will also be encouraged by improved use and enjoyment of forest recreation facilities (see Performance Measure 1.2.d).

Outcome 3.1. Fully functioning local forest management committees

- a. Performance Measure:** Number of Local Forest Management Committees (LFMCs) involved in management of forest resources under formal agreements with the Forestry Department.

2008 Baseline: 6; 2013 Target: 12.

- b. Performance Measure:** Number of LFMCs implementing sustainable livelihood, community development and / or conservation projects supporting sustainable forest management.

2008 Baseline: 4; 2013 Target: 12.

Outcome 3.2. Improved public awareness about the value of forest management and biodiversity conservation

- a. Performance Measure:** Percent of public aware of the role of forest management in providing environmental services, disaster risk reduction and biodiversity conservation.

¹ "Critical emphasis areas" as identified in the 2001 NFMCP.

2008 Baseline: not known; *2013 Target:* 80% awareness level among general public.

Means and Strategies for Accomplishing Objective 3

- Conduct community research and mobilization leading to LFMC formation and memoranda of agreement with Forestry Department.
- Train and provide guidance to LFMCs in proposal writing, management, and capacity building for forest management, conservation and sustainable livelihood projects.
- Increase number of school visits by forestry personnel, supported by in-house staff training.
- Update Forestry Department website to include interactive elements.
- Expand advertising programme and media.
- Design and conduct statistically valid surveys to monitor public awareness.
- Work and collaborate with those NGOs whose programmes are also aimed at increasing community and public awareness.

Strategic Objective 4. Develop and Implement Forest Management Plans

The Forest Act (1996) and the 2001 NFMCP identify local forest management plans, developed with public input, as essential tools for prioritized implementation of forest management and conservation policies. However, planning approaches developed by the Trees for Tomorrow Project and envisaged in the NFMCP have proved excessively time consuming and have failed to meet legislated requirements or produce a consensus for action. Alternative strategies will therefore be applied based on experience gained from exchanges between the Forestry Department and the United States Forest Service.

Over the next five years local forest management plans will be developed, approved and implemented for at least 50% of the national area designated as Forest Reserves or Forest Management Areas, using drastically simplified but practical and proven planning procedures. Both government and non-government personnel will be trained and involved in planning. The development of these plans, and operations in areas for which local plans have not yet been developed, will be supported by the creation of broad regional plans and application of geographic information systems.

Outcome 4.1 Appropriate personnel trained and involved in development and implementation of forest management plans

- a. **Performance Measure:** Number of Forestry Department zonal and regional staff trained in development, application, and implementation of regional and local forest management plans.

2008 Baseline: 0; 2010 Target: 15.

- b. **Performance Measure:** Number of members of Local Forest Management Committees or other NGOs trained in development, application, and implementation of regional and local forest management plans.

2008 Baseline: 0; 2010 Target: 12.

Outcome 4.2. Broad regional plans developed and being implemented

- a. **Performance Measure:** Number of regional plans completed, approved and applied to development of local plans or directly to regional operations.

2008 Baseline: 0; 2013 Target: 4.

Outcome 4.3. Local forest management plans (LFMPs) developed in collaboration with partners and being implemented

- a. **Performance Measure:** Number of hectares managed under approved LFMPs on the Forest Estate.²

2008 Baseline: 0 hectares; 2013 Target: 55,500 hectares.

² Forest reserves and other Crown lands.

- b. Performance Measure:** Number of hectares managed under approved LFMPs on private lands designated as forest reserves or forest management areas.

2008 Baseline: 0 hectares; *2013 Target:* to be developed following identification of candidate areas.

Means and Strategies for Accomplishing Objective 4

- Drastically simplify format for local forest management plans, consistent with number of plans required and ease of application by LFMCs and regional Forestry Department staff.
- Develop broad regional plans, maps and statistics describing land use and legal status, existing conditions (e.g. forest cover, watershed, special interest areas), threats (i.e. human threats and “critical emphasis areas” as described under Objective 5), and management opportunities (i.e. areas suitable for forest cover restoration or contributing to other national targets identified in this Plan).
- Identify local planning areas (areas to be covered by local plans) and align them with Local Forest Management Committee areas.
- Use the Forestry Department’s geographic information systems to provide Forestry Department, LFMC and NGO personnel involved in local forest management planning, with maps and summaries of the information described above, broken down by local planning area.
- Train appropriate zonal and regional staff, LFMC members and NGO’s in development of local plans using the simplified specifications and available data. (Training to be initially combined with actual development of plans using expert assistance.)
- Educate and assist LFMC’s and NGO’s in identifying sources of funding for implementing plans.

Strategic Objective 5. Maintain and Restore Forest Cover

Jamaica's forests play a crucial role in safeguarding biodiversity, conserving soil, protecting watersheds and mitigating disaster risks (such as severe flooding and damage to housing, agriculture and infrastructure resulting from hurricanes). Failure to maintain and restore forest cover, particularly on steep slopes and in critical watershed areas, will have disastrous consequences.

Currently (in 2008), approximately 30% (333,000 hectares)³ of Jamaica remains classified as forest. About 88,000 hectares of this is classified as closed broadleaf forest with a closed canopy and minimal human disturbance. Most of the remaining forest is "disturbed broadleaf" (showing varying degrees of human disturbance) or natural dry open forest. The overall deforestation rate, according to the most recent and reliable estimates, is about 0.1% per year. The extent and rate to which forest cover and biodiversity is being degraded as a result of disturbance is unknown.

Reducing deforestation and restoring forests are recognized as high national priorities. The Framework Document signed by the Minister of Agriculture to establish the Forestry Department as an executive agency sets out a clear mandate in this regard to maintain not less than 30% of the country as forest, and to increase the area of forest cover by at least 2%. Meeting this challenge will require a sustained forest conservation and restoration effort over the next 15 years, during which time deforestation rates will be targeted for reduction by at least 50%, and reforestation rates will be increased to at least 700 ha per year.

Strategies during the next five years covered by this Plan will be focused on:

- *Forest conservation* to reduce rates of deforestation and forest degradation, with emphasis on halving the overall deforestation rate and conserving threatened natural forests with high biodiversity and watershed protection values ("*critical emphasis areas*");
- *Forest restoration*, including achieving a successful reforestation rate of 700 hectares per year by 2013;
- Confirming and increasing the sustainable *allowable cut* of wood that can be harvested from forest plantations.

Critical emphasis areas for *forest conservation*, having urgent need for protection against deforestation and forest degradation, were identified in the 2001 NFMCP based on the presence and severity of the following threats to watershed, soil, biodiversity and recreational values:

- Illegal and non-sustainable harvesting of timber or fuelwood;
- Illegal cultivation, and legal cultivation on unsuitable sites;
- Illegal or excessive grazing by livestock;

³ Derived by applying a 0.1% annual deforestation rate to the forest area measured during development of the National Forest Management and Conservation Plan, 2001.

- Fire;
- Other non-forest uses of the land, such as mining and illegal settlement.

Consensus on the delineation of these areas has been confirmed and improved with the development of the Protected Areas System Plan and the Forest Conservation Fund priority areas.

Forest restoration includes a wide range of activities including plantation development on de-forested land, enrichment planting of degraded natural forests, and removal of invasive species in natural forests. While all of these activities will be encouraged, during the next five years the restoration emphasis of the Forestry Department will be on offsetting deforestation by supporting the planting and establishing of forest cover on de-forested lands.

Note the distinction made between natural forests and forest plantations with respect to *allowable cut*. Strategic emphasis will be placed on confirming the level of sustainable production of wood available from accessible plantations environmentally and economically suitable for harvesting. It is expected that the resulting improved confidence in allowable cut estimates will both permit an increase in the permitted harvest level and encourage private sector investment in sustainable utilization. Better planned allocation of allowable cut from plantations will reduce exploitation pressures currently leading to illegal logging in natural forests and sensitive areas. Consistent with the CBD precautionary principle, allowable cut levels have been, and will continue to be, set low relative to calculated potential levels of production, allowing ample margin for risk and uncertainty.

Outcome 5.1. Improved compliance with forest legislation

Progress towards improved compliance will be a dual function of strategies adopted to achieve Strategic Objective 1, and will be targeted and measured as described under Outcome 1.3.

Outcome 5.2. Reduced rates of deforestation and forest degradation

a. Performance Measure: Percentage annual rate of loss in total forest area.⁴

1989-1998 Baseline: 0.1% per year; *2013 Target:* 0.05% per year (approximately 170 hectares).

b. Performance Measure: Percentage annual rate of loss in closed broadleaf forest area.⁵

1989-1998 Baseline: 0.06% per year; *2013 Target:* 0.00% per year.

⁴ As defined by Evelyn, O.B. and R.Camirand, 2003, *Forest cover and deforestation in Jamaica: an analysis of forest cover estimates over time*. International Forestry Review 5(4) 354-363.

⁵ A measure of forest degradation to be used pending the development of more rigorous approaches using results of ongoing research and ground monitoring.

Outcome 5.3. Forest cover restored with suitable species on selected lands

- a. Performance Measure:** Number of seedlings produced per year in nurseries.

2008 Baseline: 300,000; *2013 target:* 600,000.

- b. Performance Measure:** Percentage of planting stock meeting seedling quality standards.

2009 Baseline: to be determined following definition of standards; *2013 Target:* 90%.

- c. Performance Measure:** Number of hectares planted on suitable Crown and private land.

2008 Baseline: approximately 200 hectares per year; *2013 Target:* 700 hectares per year (approximately 80% on private land and 20% on Crown lands).

- d. Performance Measure:** Percentage of planted area satisfactorily established within three years of planting.

Baseline to be assessed, and standards to be developed and set within two years.

- e. Performance Measure:** Percentage increase in sustainable annual allowable cut available from accessible forest plantations suitable for harvesting.

2008 Baseline: 6,457m³; *2013 Target:* percentage increase to be determined.

Means and Strategies for Accomplishing Objective 5

- Increase forest reserve patrolling and enforcement activities in critical emphasis areas, supported by improved staffing, staff training, transportation and communications (see also measures and strategies identified for Objective 1).
- Monitor (1) overall rate of deforestation, and (2) degradation of natural forests having high biodiversity values, using systems already developed during the Trees for Tomorrow Project. This will involve: (1) mapping of forest use / cover based on 2008 imagery and again in or by 2013; (2) ensuring that the ground monitoring permanent sample plot system is in place throughout priority areas for biodiversity conservation by 2013.
- Continue, encourage and expand research and ground monitoring to provide an improved understanding of the rate and extent of degradation within remaining natural broadleaf forests, and to develop improved approaches for measuring and reversing degradation.
- Improve seedling production and distribution through:
 1. Training of nursery supervisory staff supported by an expert in forest nursery management and operations;
 2. Research (initially based primarily on existing documented knowledge) into silvicultural, productivity and utilization characteristics of candidate species;

3. Addendum to existing nursery manual specifying seedling quality standards for out-planting of supported species.
- Diversify number of species grown in nurseries, based on research and in consultation with private growers and scientists, to meet requirements for both commercial forestry and biodiversity conservation.
 - Increase reliance on private land, the private sector and NGO's for reforestation (see Strategic Objective 2 and associated strategies).
 - Develop within two years tree crop establishment standards and implement a scientifically valid regeneration survey system for assessing whether and when the crop is satisfactorily established. This strategy, combined with performance measure 5.3.d above, will require and encourage increased emphasis on proper plantation maintenance during the critical three years following planting.
 - Improve annual allowable cut estimation of accessible forest plantations suitable for commercial operation, taking into account species and age class distributions, researched and monitored growth rates, increases resulting from successful plantation establishment, and risk of losses from natural and human disturbances.

Implementation Process

Planning is just the first step in a cycle of planning, implementation, monitoring and adjustment. The process described below will be integrated with, and not duplicate, the planning, budgeting and reporting procedures specified in the Framework Document for Transformation of the Forestry Department (January 2008).

Planning

The Strategic Plan, as described in the previous section, specifies the strategies required to achieve the key strategic objectives, and associated performance measures. It also establishes expectations in terms of baselines and targets for the 5-year planning period. Part of the planning process has also been to design a set of communication and reporting templates to facilitate implementation. These tools will assist:

- Performance planning over five years;
- Development and annual updating of the Forest Department's Corporate Plan;⁶
- Annual targeting and reporting;
- Performance measure management.

Implementation

Each year a direction will be published and communicated throughout the Department, indicating:

- Funding levels;
- Performance expectations;
- Reporting processes;
- Performance documentation requirements;
- Performance measure metrics.

This will provide the basis for detailed operational planning and implementation at the various organizational levels i.e. Head Office / Corporate Services, Science and Technology Services, and Eastern and Western Zonal Management.

While the strategic focus will be on achievement of the objectives and targets identified in the Strategic Forest Management Plan, the annual direction will be integrated with the Department's overall annual planning and budgeting process.⁷

⁶ The Forestry Department is required as stated in the Framework Document to prepare a corporate plan covering a period of three years and rolled forward on an annual basis to coincide with the start of the planning cycle leading up to the preparation of the annual business plan and budget.

⁷ The Framework Document stipulates production of an annual business plan containing detailed targets and proposals for the coming financial year. The preparation of the annual business plan and budget must meet the schedule and reporting requirements of the Government's annual budget cycle.

Monitoring

Monitoring of managerial performance will be based on upward quarterly and annual reporting. Accountabilities will be established organizationally and at the individual level. Explanations will be called for when achieved versus targeted performance levels differ significantly (i.e. by more than plus or minus 5%).

Monitoring of performance against strategic objectives and targets will be integrated with the processes specified in the Framework Document for quarterly and annual reporting on the Corporate Plan and Annual Business Plan.

Adjustment

Adjustment of targets will provide the necessary flexibility for responding to shortfalls, over-achievements, and emerging issues. Targets should generally be adjusted at year end, i.e. not between quarters. Necessary major adjustments of performance measures should be made only on an annual basis.