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**DESIGNING A  
FOREST FINANCING MECHANISM (FFM):  
A CALL FOR BOLD, COLLABORATIVE  
& INNOVATIVE THINKING**

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THE FLETCHER SCHOOL  
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agriculture, nature  
and food quality



The Frederick S. Pardee Center  
for the Study of the Longer-Range Future

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## **Designing a Forest Financing Mechanism (FFM):**

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This report outlines a way to expand the current approach to mobilize global forest financing as well as to establish an innovative, effective and efficient Forest Financing Mechanism. This initiative was conceived and funded by the Netherlands Ministry of Agriculture, Nature, and Food Quality.



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Designing a Forest Financing Mechanism (FFM):  
A Call for Bold, Collaborative & Innovative Thinking

By Hans Hoogeveen, Jagmohan S. Maini,  
Adil Najam, William Moomaw, and Patrick Verkooijen

The views expressed in this report are those of the authors and do not necessarily reflect the views of any of the institutions.

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## **Preface**

The stakes for survival of the world's forests are dauntingly high. Millions of people depend upon forest resources for their survival. According to World Bank figures, forests resources: directly contribute to the livelihoods of some 90 percent of the 1.2 billion people living in extreme poverty; indirectly support the natural environment that nourishes agriculture and the food supplies of nearly half the population of the developing world; and constitute a major source of national wealth. In addition, they provide important local and global environmental services, such as maintaining soil stability, protecting water flow and quality, regulating the global climate through carbon sequestration, and serving as the repository of the bulk of terrestrial biodiversity. Yet, for the most part, forests continue to be poorly managed and indiscriminately felled at unsustainable rates. The United Nations Food and Agriculture Organization estimated that 13 million hectares of the world's forests are lost to deforestation every year.

The sustainable management of forests is a complex task. It requires coordinated efforts, action and effective partnerships between government agencies, non-governmental and civil society organizations, private sector actors, and other stakeholders. These partnerships should be formed at all levels.

For its part, in 2007 the General Assembly of the United Nations, after 15 years of discussions and negotiations, adopted a landmark international agreement on forest policy, implementation, and cooperation that sets a new standard in forest management.

This new global agreement, the “Non-Legally Binding Instrument on All Types of Forests” (NLBI), calls for greater international cooperation and national action to reduce deforestation, reverse the loss of forest cover, prevent forest degradation, promote sustainable livelihoods, and reduce poverty for all forest-dependent peoples.

The agreement itself was reached after intense negotiations before and during the seventh session of the United Nations Forum on Forests (UNFF-7) earlier that year. A crucial element of the negotiations was the question of how to mobilize new and additional financial resources from all sources for the implementation of sustainable forest management worldwide.

Recognizing and being aware of the pivotal role of forest finance during UNFF-7 and beyond, I gathered a group of innovative thinkers in late 2006 to bring new ideas to the table; ideas that went beyond the locked positions of the time, such as a global forest fund and focusing on use of existing financial arrangements. The collective work of this informal group resulted in the origin of “the portfolio approach” which recognizes that increasing financing for forests depends on the development of a variety of domestic and international public and private funding in tandem with strengthening forest-related governance and enabling environments for long-term responsible investments in forests.

## DESIGNING A FOREST FINANCING MECHANISM (FFM)

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This approach was further developed in the study of PROFOR “Background Paper on Means of Implementation” (April 2007).

For the implementation of the NLBI it is critical that the financial architecture of forests be geared towards making a significant contribution to the achievement of the Global Objectives on Forests. The roadmap set by the General Assembly resolution provides a clear role to operationalize the agreement on forest finance reached at UNFF-7.

Recognizing its broad mandate, the Forum is in a unique position to contribute to the coherence of the forest finance landscape during its upcoming deliberations.

I would like to thank my co-authors, Jagmohan S. Maini, William Moomaw, Adil Najam, and Patrick Verkooijen, for all the efforts made in preparing this important study. I gratefully acknowledge several individuals who supported this project in various ways: Ida Koppen for assistance with background research and editing; Kate Harvey for research, drafting, and editing; and Mieke van der Wansem for drafting, editing, and overall project management.

Hans Hoogeveen,  
Chairperson of the seventh session  
of the United Nations Forum on Forests

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## TABLE OF CONTENTS

<b>1. The Past, Present and Future of Forest Financing</b> .....	<b>1</b>
Charting the Evolution of Forest Discussions .....	2
<i>Figure 1: Forests – An Evolution of Ideas</i> .....	2
The Future of Forest Financing Policy .....	3
<b>2. The Case for Innovative Thinking on Forest Financing</b> .....	<b>6</b>
The Complex Realities of Forest Financing .....	6
<i>Figure 2: Four Realities - Mapping Key Interests</i> .....	7
<i>Figure 3: Forest Cover by Ecological Zone</i> .....	9
Designing an Innovative Financing Mechanism .....	10
<b>3. A Portfolio Approach to Forest Financing</b> .....	<b>14</b>
<i>Figure 4: A Forest Financing Mechanism</i> .....	14
Public Sector Funding .....	15
Payment for Ecosystem Services .....	17
Engaging the Private Sector .....	18
Mobilizing Civic Leadership .....	20
Towards a Forest Financing Mechanism .....	21
<b>4. Thoughts on Governance</b> .....	<b>23</b>
<b>5. Conclusion: Looking Forward</b> .....	<b>25</b>
<b>References</b> .....	<b>27</b>
<b>Annexures</b> .....	<b>31</b>
<b>Annex A1: Forest Benefits and Services</b> .....	<b>32</b>
<b>Annex A2: Notes on Present and Potential Sources of Forest Financing</b> .....	<b>36</b>
<b>Annex A3: Types of Policy Interventions</b> .....	<b>38</b>
<b>Annex A4: Principles of Good Design</b> .....	<b>41</b>



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# 1. The Past, Present, and Future of Forest Financing

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Forests, covering nearly one-third of Earth's landscape, provide economically valuable renewable materials, fuel, food, livelihoods; many ecological services including soil conservation and storage and regulation of water, weather, carbon and climate; and support a majority of all living species (see Annex A1). As a policy issue, forests are a complex, politically sensitive, and cross-sectoral concern. Forests were among the most controversial issues deliberated at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992, and they remain one of the most perplexing issues for global policy due to their unique nature of providing simultaneously multiple and sometimes competing developmental, environmental, and social benefits.

Since UNCED, the international community has made significant progress in the development and coordination of international forest policy. However, for the past decade, it has struggled with three key issues:

- The Global Objectives on Forests and rationale for action;
- The legal character of an international forestry instrument (legally-binding or non-legally binding) and;
- The means of implementation, especially mobilization of new and additional financial resources.

Since Rio, the international community has worked to define the objectives of an instrument and to structure the legal character of an international forest-related policy through deliberations at the Intergovernmental Panel on Forests (IPF)/Intergovernmental Forum on Forests (IFF)/ United Nations Forum on Forests (UNFF). After 15 years of discussions and negotiations, the UNFF reached final decisions on global objectives for action and the need for the establishment of a Non-legally Binding Instrument (NLBI).

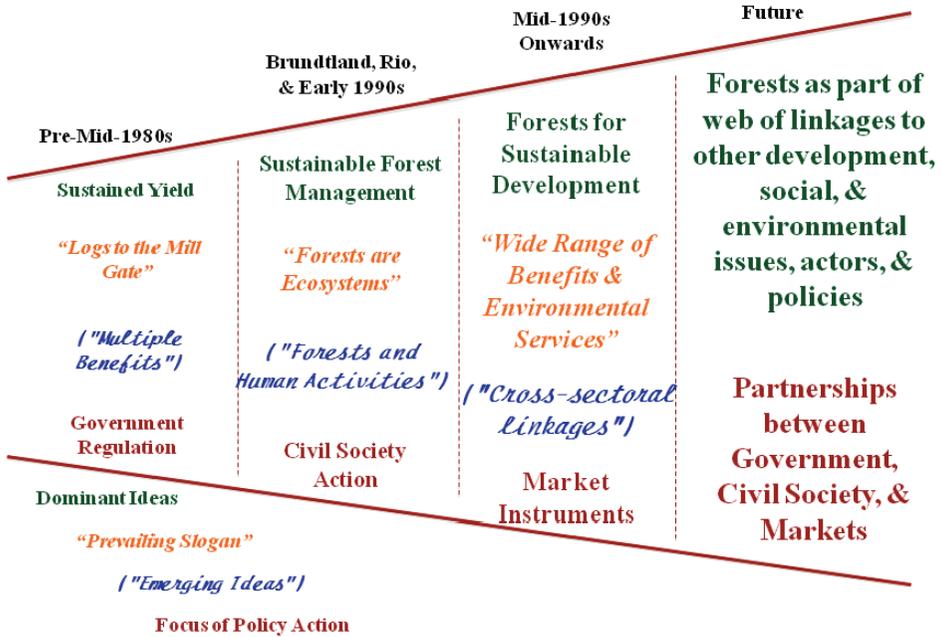


However, progress has been uneven in the mobilization of resources to support the implementation of the agreed proposals for action. Today, the challenge that remains is how to address the last key issue within the international forest arena: mobilizing new and additional financial resources for forests in order to enhance their contribution to human well-being at the local, national, regional, and international levels.

**Charting the Evolution of Forest Discussions**

As discussions continue on a means for generating financial resources, it is helpful to consider the evolving perspective on the management and contribution of forests that has taken place during the past decades (Fig. 1).

*Figure 1: Forests - An Evolution of Ideas*



Forests emerged on the international policy and political agendas in the mid-1980s, following alarm raised by the environmental community about: the unprecedented rates of deforestation and forest degradation; environmentally unsustainable forestry practices in many parts of the world; and the consequent loss of multiple values and benefits provided by forests for human well-being. During this period, government was seen as the key actor and source of financial resources to prevent these losses and restore the damage.

After the 1992 Earth Summit in Rio de Janeiro, the concept of forest management shifted from sustained yield forestry, aimed at producing a specific product (mainly timber), to sustainable forest management, a conceptualization that requires viewing forests as ecosystems that simultaneously provide multiple values and benefits to the economy, society, and to the environment. Civil society became the focus of policy actions and played important roles in the generation of financial resources.

Since then, the forest agenda has further evolved from strictly biophysical characteristics to

multi-dimensional factors with sub-national, national, transboundary, regional, and global dimensions. However, during the past decade, there has been a notable decline in the mobilization of sufficient financial resources for forests from both domestic and international sources. At the same time, in many countries, government agencies responsible for forests are experiencing reduced political influence and budgets as well as diminishing Official Development Assistance (ODA) for forest-related initiatives. As a result, the private sector and civil society are viewed as increasingly important sources of building financial and technical capacity for forests.

### **The Future of Forest Financing Policy**

As recent events at the United Nations Forum on Forests (UNFF) foreshadow, the future of sustainable forest management will require a collaborative and cross-sectoral approach. The UNFF agreed that the international arrangement on forests will “enhance the contribution of forests to the achievement of the internationally agreed development goals, including the Millennium Development Goals and to the Johannesburg Declaration on Sustainable Development and the Plan of Implementation of the World Summit on Sustainable Development, bearing in mind the Monterrey Consensus of the International Conference on Financing for Development.” Accordingly, the UNFF emphasized the need to include forests on national and international development agendas and to mobilize financial resources to support forest and forest-related actions in developing countries, including, landlocked developing countries, small island developing countries, least developed countries, countries with fragile ecosystems, low-forest countries, as well as countries with economies in transition.

After 15 years of discussions and negotiations, the seventh session of the United Nations Forum on Forests (UNFF-7) in April 2007 adopted a landmark agreement on international forest policy and cooperation that sets a new standard in the management and sustainable development of all types of forests.

This new global agreement, the “Non-Legally Binding Instrument on All Types of Forests” (NLBI), calls for greater international cooperation and national action to reduce deforestation, reverse the loss of forest cover, prevent forest degradation, promote sustainable livelihoods, and reduce poverty for all forest-dependent peoples.

Following a recommendation from the Economic and Social Council (through its Resolution 2007/40), the General Assembly of the United Nation adopted, on 17 December 2007, the NLBI on all types of forests (Resolution 62/1980). As a part of this resolution, the UN General Assembly also decided:

- “To develop and consider, with a view to adopting at the eighth session of the UNFF (April 2009), a voluntary global financial mechanism/portfolio approach/forest financing framework for all types of forests, aiming at mobilizing significantly increased, new, and additional resources from all sources, based on existing and emerging innovative approaches, also taking into account assessments and reviews of current financial mechanisms, to support the implementation of sustainable forest management, the achievement of the global objectives on forests and the implementation of the non-legally binding instrument on all types of forests;

- That the Forum should convene before its eighth session an open ended ad hoc expert group (AHEG) meeting (December 2008) to develop proposals for a voluntary global financial mechanism/portfolio approach/forest financing framework, and invited the Collaborative Partnership on Forests to assist in the development of these proposals.”

Taking into account the decision of UNFF-7 the purpose of this paper is to outline a way to expand the current approach to mobilize forest financing as well as to establish an innovative, effective, and efficient Forest Financing Mechanism (FFM). This proposed expanded financing mechanism would involve a new multi-actor, multi-pronged, and multi-level framework for financing a wide range of needs for forest initiatives throughout the world.

Further elaborations of this portfolio approach are presented in “Background Paper on Means of Implementation” (PROFOR 2007), which was based on ideas presented in this paper.

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*Credit: Conserve Africa, UK*

## 2. The Case for Innovative Thinking on Forest Financing

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Mobilizing financial resources to support sustainable forest management has been under active consideration by the international community for many years. A wide range of sources of funds is already available to support forest and forest-related activities at the global, regional, sub-regional, and national levels (see Annex A2). However, a primary source, total Official Development Assistance (ODA), has been declining since the mid 1980s, particularly ODA targeted at the forest sector. While exact allocations for the conservation and sustainable management of forests are not readily available due to sectoral overlaps, it has been estimated that ODA for forests rose from USD 784 million in 1986 to USD 1.27 billion in 1997. The current aid specifically to forests is estimated to have declined to about USD 500 million, representing about 1% of total ODA (OECD, 2000; Persson 2003). However, it is important to note that:

- From 1997-2005, Global Environment Facility (GEF) allocated USD 183 million to support 236 projects on forests;
- Foreign direct investment (FDI) in the primary forest sector is concentrated in developing countries;
- At present, there are nearly 30 carbon systems and funds worth USD 3.8 billion;
- Debt for Nature swaps have been used successfully, but have declined in amount in the past decade;
- Innovative actions by local communities and civil society organizations continue to expand and evolve.

These data highlight the reality that financial and technical resources for forests and forest-related activities do not always come from obvious sources. Moreover, while resources may be available, they are not always mobilized in ways that can benefit those who most need them. As a result, lack of adequate financial resources as well as of human and institutional capacity, particularly in developing countries, pose a serious constraint in realizing the potential contribution of forests towards the achievement of the Millennium Development Goals (MDG's) and the overall enhancement of human well-being.

### **The Complex Realities of Forest Financing**

Forests cover nearly 30.3% of Earth's landscape and simultaneously provide a wide range of economic, social, environmental, and cultural benefits for human well being (see Annex A1). Notably, the world's forest cover is unevenly distributed. More than 50% of the world's forests are located in only five countries, namely, the Russian Federation, Brazil, Canada, United States of America, and China. Nearly 66 % of the world's forest cover is located in

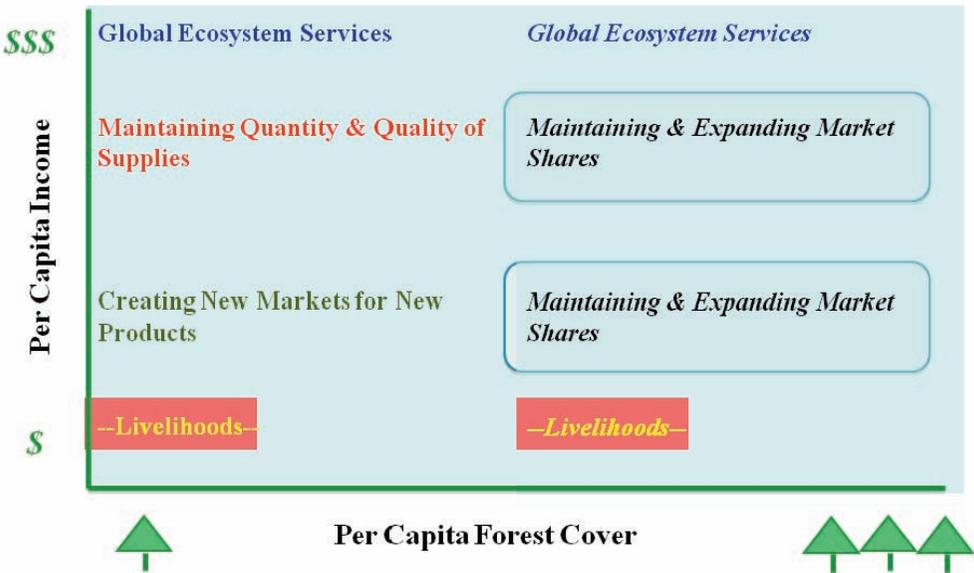
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only 10 countries, and about 82% in about 25 “forest- rich countries”; about 170 countries share the remaining 18 % of the forest cover. Sixty-four countries, located mostly in North Africa, West Asia and small islands, have less than 10% of their land forested and are recognized as “low forest cover countries” (FAO 2001).

It is widely recognized that whereas there are overarching guiding principles governing the management, conservation, and sustainable development of all types of forests: countries have the sovereign right to manage and use their forests in accordance with their own priorities as defined in the context of their social, economic, and political needs, interests, and values. Any forest policy – more specifically, any forest financing policy – can only succeed if it recognizes and addresses not only the multiple types and multiple uses of forests but also the multiple interests or ‘realities’ that exist within different countries and groups within those countries.

It has been suggested that per capita income and per capita forest cover define four broad forest-related ‘realities’ in the world and that these two parameters are the drivers of the areas of priority concern of countries. Based on these parameters, a typology of “four realities” has been proposed (Maini 1996, 2003).

Figure 2: Four Realities - Mapping Interests



Broadly speaking, countries with high per capita income that are richly endowed with forests are major producers and consumers of forest products. Industrialized countries with scarce forest cover rely heavily on imports to meet their demand for wood and wood products. On the other hand, forest-rich developing countries view forests as an important instrument of economic development. Over a billion people, including the indigenous peoples, in both industrialized and developing countries, live in and around forests and depend on these forests for their subsistence and livelihoods. The subsistence value of forests is particularly significant in low forest cover developing countries. The design of an effective FFM needs to consider these four broad realities on the ground.

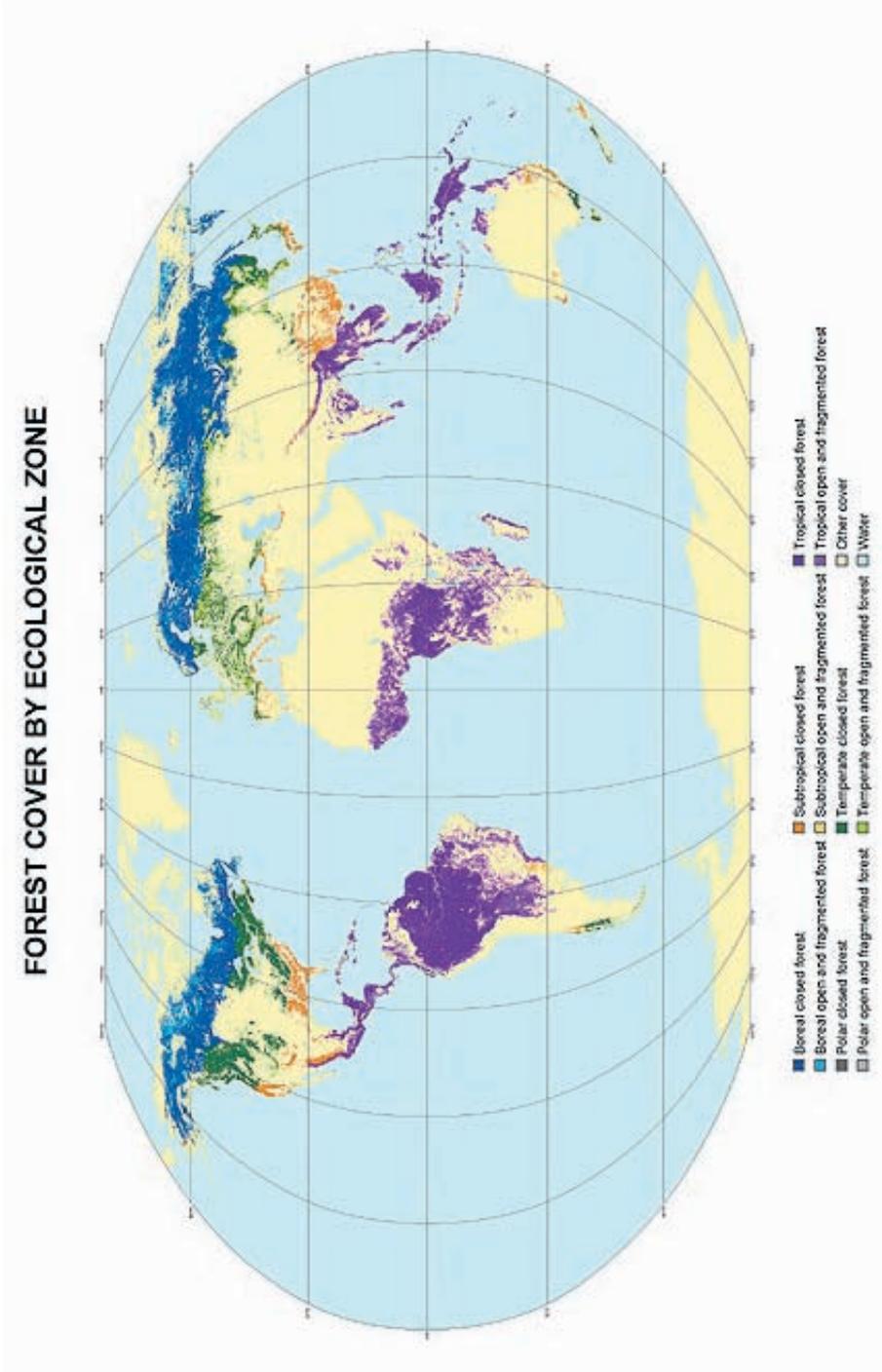
In the face of these diverse realities and interests, it is unlikely that a single, rigid financing mechanism will be universally effective and equally appealing to all potential donors. This, more than anything else, is why finding a solution to the forest financing problem has been difficult in the past. This, however, is also the most compelling reason why an innovative and multi-dimensional approach is needed to mobilize significant new and additional resources, provided by a variety of public, private, domestic, and international means.

Such a multi-dimensional mechanism would be an important innovation in global sustainable development policy, which has usually focused on single solutions to complex problems. It would also be a recognition of the fact that there is a wide range of policy and financing instruments that fit diverse forest-related priorities, needs, and realities on the ground (see Annex A3). The challenge is to identify key financial products and services that could be part of a multi-dimensional FFM that capitalizes on the energies of governments, private sector, and civil society to mobilize resources for forest-related activities.

The next chapter will deal more directly with what the possible initial elements of such a Mechanism might be. Our purpose here is to highlight key design lessons that can be derived from three decades of experience in global environmental policy on how one might go about designing such a Mechanism (also see Annex A4).

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Figure 3: Forest Cover by Ecological Zone  
(Food and Agriculture Organization of the United Nations)



## **Designing an Innovative Financing Mechanism**

An enhanced approach to forest financing will need to include innovative and sometimes untried mechanisms. It will require new modes of operating with multiple stakeholders and adaptive governance in order to be flexible. To be effective, it must be performance based, requiring rigorous and constant assessment. It will also require careful political discussions and coalition building so that all parties are reassured that their interests will be met through an agreement that is crafted as a win-win, mutual gain for all countries as well as for the full range of actors within all forest-related regions.

The accumulated insights and experience from three decades of global environmental policy suggests that any financing system for forests should build upon the following seven principles:

### ***1. Focus on Key Interests***

The four ‘forest realities’ discussed earlier depict the range of shared and unique interests that drive countries’ concerns in forests (see Fig. 2). Some divergent interests cut predictably across North-South lines, for example the relative importance of local livelihoods and global ecosystem services. Others break traditional North-South boundaries and are shared by countries of diverse per-capita income and forest cover, notably maintaining and expanding market share of forest products.

An innovative FFM should move beyond traditional perspectives and focus on creating multiple opportunities for financial resource generation – some that capitalize on shared interests of countries while others that appeal to their unique interests.

### ***2. Capitalize on Diverse Capacities of States, Markets, and Civil Society***

Over the last 30 years the international community has shifted the focus of its attention across a range of institutional sectors of society (see Fig 1). Broadly, the 1980s saw a trend of seeking state-based solutions while ignoring markets and business. The 1990s saw a shift towards civil society actors (NGOs), which became the focus of policy-makers with government’s role limited to creating space for civil society action. In contrast, in the 2000s there is a shift towards the market sector and business actors with government often being viewed as a problem, rather than a partner in solutions. Each of these trends was partly correct. But only partly correct. Each was correct in that all three - government, civil society, and markets - are critical players in any search for sustainable development. Yet, each was mistaken in that the international community has been constantly seeking a single, ‘silver bullet’ solution. Sustainable development will come not from any one of these three institutional actors; it will come from the concerted and coordinated action of all three. That means knowing the key strengths and capacities of each actor and mobilizing those capacities. That is, the government’s capacity for regulation, the market’s capacity for harnessing profit motives to internalize externalities, and the NGO capacity for civic engagement and mobilization (Najam, Christopoulou and Moomaw, 2004).

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### ***3. Build Strength Through Flexibility***

There is no single solution to a mechanism for flexible forest financing, instead a variety of complimentary opportunities or options can be bundled into a dynamic mechanism for forest financing. Options should be refined on a continuous basis to reflect the evolving interests of UNFF members and some may offer entirely new, untested ideas. Additionally, not all opportunities need to, or would, be undertaken at once. Some might start as a pilot project and be revised based on experience, analysis, and changing priorities. The need for an independent assessment process to provide the information required to set priorities and establish a multiple level adaptive management strategy cannot be overemphasized.

### ***4. Operate at Multiple Levels: Global, Regional, and National***

The realities and complexity of managing forests to meet the multiplicity of human needs necessitates a balance among the national, regional, and global actions on management, conservation, and sustainable development of this valuable natural resource. A flexible tool is needed to allow administrators to hedge their risk by diversifying their options. This means developing an understanding of the priorities and the most effective means of working at each level. In general, policies and goal setting are likely to be the focus at the global level; programs at the regional level; and projects at the national level.

### ***5. Be 'Self-enforcing' to the Extent Possible***

Self-enforcing mechanisms offer stakeholders incentives for participation, implementation, and compliance. Goodwill is not enough. To ensure implementation and policy instrument sustainability, careful consideration and framing of incentive structures is critical. Incentives that meet a "need" of a participant will foster on-going participation. Self-enforcing mechanisms also avoid spoilers by soliciting the involvement and buy-in from all relevant stakeholders so that they may have a stake in the outcome.

### ***6. Remain 'Performance Focused'***

The ultimate goal of any mechanism must be to improve the state of all types of forests worldwide, within the context of the sovereignty principle. Any mechanism will be measured, not just by the resources it mobilizes or by what projects it initiates and implements, but ultimately by whether or not it has achieved its forest outcome goals, including the Global Objectives on Forests. It is, therefore, critical that the mechanism for forest financing be strongly 'performance focused.' This immediately raises the importance of effective and regular monitoring and assessment based on pre-defined and agreed upon indicators of outcomes. Performance is defined as the sum of implementation, compliance, enforcement, and effectiveness. It is by these yardsticks that any mechanism would be ultimately gauged.

### ***7. Use Soft Law to Get Hard Results***

There is debate on whether legally binding agreements are better than non-binding ones. Experience in international regime design suggests that it is more important to get an overall architecture that is driven by performance (see above) than to continue debating legal designations. Both types of agreements have succeeded and both types have failed. The key is not which approach one takes but how the overall institutional architecture matches the

needs of the issue and the interests of the parties. The overall experience with global environmental policy suggests that the soft law approach that has most often been taken, in fact, created a momentum of awareness and activity, which has moved down to the level of national and sub-national policy and action. In order to make a future FFM deliver on its goals, it is significantly more important that the incentives are appropriately aligned and the key actors (states, markets, civil society) see it in their interest to act together. While hard law (regulation) seeks to design good enforcement mechanisms, soft law (non-binding goal setting) must be based on an essential understanding of complementary interests and the creation of incentives that create opportunities for all actors to participate.



### 3.

## A Portfolio Approach to Forest Financing

An innovative and multi-dimensional forest financing mechanism (FFM) is possible through a 'Portfolio Approach'. This 'Portfolio Approach' consists of utilizing a combination of financial products and services that can raise financial resources (including, monetary resources, knowledge resources, capacity development, public support, and awareness, etc.) for effective action on forests.

Simply stated, *the notion of a Portfolio Approach suggests that instead of selecting a single (or small) set of funding instruments (e.g., state-based contributions), a portfolio of complimentary financial products and services should be created to raise the required financial resources from a variety of relevant actors.*

The exact mix of the 'portfolio' that makes up the FFM will vary depending on the specific nature of the project or program and the interest of alternative financial partners; new sources could be added (or subtracted) depending upon need and experience. At this juncture, four major financial product and service 'types' include:

- Public sector funding;
- Payment for ecosystem services;
- Engaging the private sector;
- Mobilizing philanthropic leaders.

Past experience has shown that individuals, the public sector, the private sector nor civil society can mobilize sufficient resources. However, a combination of products and services from the four elements of the portfolio - public funding, payment for ecosystem services, engaging the private sector, and mobilizing philanthropic leaders- may provide the win-win, mutual gains solutions that the UNFF is striving to create. (Figure 4)

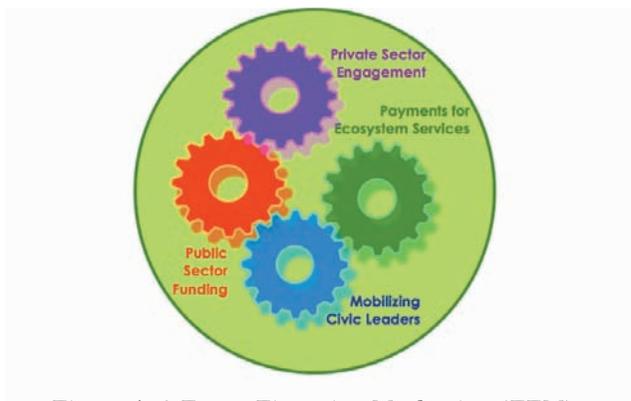


Figure 4: A Forest Financing Mechanism (FFM)

The proposals in this chapter are broad and preliminary. The goal is not to detail all the workings of a multi-sector financing mechanism, rather to begin outlining the contours of a Portfolio Approach. This chapter assumes that all financial resources generated by the portfolio would be consolidated into a single management structure for effective coordination. Governance issues are discussed briefly in Chapter 4.

### Public Sector Funding

## Public Sector Funding



- Financing Coherence
- New Resources
- Cross-Linkages
- Institutional Coordination

Soliciting contributions for forests from state actors is not a new idea. Most global, multilateral institutions and treaty regimes depend on state contributions to finance various global funds. While it is worthwhile to continue current dedicated state financed funding where it has proven effective, under the new framework of multi-faceted objectives and competencies, a global financing mechanism for forests could move beyond a focus on generating new state funding exclusively for forest initiatives.

Forest issues are relevant to a range of policy areas including socio-economic development, human well-being, governance, trade, human rights, and environmental sustainability. This means that there is policy competition among and within multiple regimes on actions and activities related to forests and their management. This is one more reason why conventional ways of doing global policy (constructing rules-based legal instruments for carefully defined and contained issues) is unlikely to be effective for forests and why a more innovative portfolio approach to forest financing is needed. For these reasons, part of a FFM portfolio of products and services must cultivate institutional synergies with other international regimes as well as other domestic policy areas of action to:

*i. Identify cross-sectoral opportunities* – Work with existing international institutions, such as the World Bank– to identify linkages between their existing activities and overarching forests goals.

*For example, trade rules being negotiated currently will have immense bearing on the future of forests, yet there is no voice for forest interests within those negotiations. The FFM could consult with trade negotiation representatives on what those linkages might be and what means may be found through developing mutual gain solutions that simultaneously meet forest and trade goals. This could lead to the emergence of better trade rules and the achievement of forest goals.*

*ii. Catalyze new resources* – Mobilize new and additional financial resources to support forest initiatives, which may either be used exclusively for forests or for multi-objective initiatives, by leveraging personal and institutional contacts, cooperation and relationships with beneficiary constituencies.

*iii. Solicit commitment* – Encourage forest-rich countries to make a public commitment and provide public finances for sustainable management of their own forests, share appropriate forest management and governance expertise, and provide training for capacity building in developing countries. The FFM could also facilitate commitments by non-donor forest-rich countries to provide non-financial resources for sustainable management of forests.

*iv. Promote policy coherence* - Foster better information management and coordination of existing donor contributions to various international instruments undertaking forest-related activities. The current lack of coherence amongst international organizations leads to duplicative, redundant, and sometimes counter-productive policies in different issue domains. Promoting coherence would allow donors a means to get credit for themselves as well as an opportunity to coordinate the various ‘pots’ into which they are already contributing to ensure that forest-related activities being funded from these ‘pots’ are not duplicative and result in larger impacts for forests while meeting other goals.

*v. Promote institutional donor coordination* – Provide a structure, regular contacts with, and interaction between existing instruments in non-forest regimes that have a bearing on forests and their management. There are already significant resources flowing into forest-related activities through non-forest-related instruments. Instead of setting up elaborate new funds that will compete for these resources, the proposed FFM could work closely with existing instruments and institutions so that their forest-related activities meet the regime objectives while also meeting forest policy objectives. The goal here is to move away from institutional competition towards institutional synergies, especially in the context of achieving overall sustainable development goals.

## Payments for Ecosystem Services



- Risk minimizing Insurance
- Futures Markets
- Savings Accounts

### Payments for Ecosystem Services

Forest ecosystems offer many vital services from conserving soil to regulating water supply and climate. The monetary value of the loss of ecosystem services in forests, due to logging, mineral extraction, agriculture, and recreation, is not commonly calculated. Nor is the value of that loss, or negative externality, paid for by the users of forest products or reimbursed to forest “owners”. Services and products involving payment for ecosystem services (PES) use the competencies of the market to minimize negative externalities that result from “uncharged” use of common

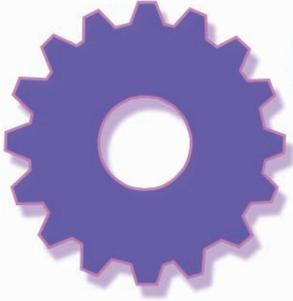
goods by creating a market for environmental goods and services. Services and products using PES can offer multiple benefits for forests: they can generate revenues for sustainable forest management initiatives and promote behaviors that protect forest communities from some of the threats that they are currently facing.

PES products and services could operate at sub-national, national, regional, and global levels. The most notable example of a functioning PES mechanism stems from the United Nations Framework Convention on Climate Change (UNFCCC), and its Kyoto Protocol. PES markets in the United States and Europe allow entities to offset carbon dioxide emissions by purchasing emissions credits. Because carbon has been commoditized, there are opportunities for new, innovative PES mechanisms around carbon dioxide emissions.

On the basis of UNFCCC developments, a number of financial services and products could be considered to generate additional funding for forests.

*For example, Insurance – Risk Aversion – Target an environment-related trend, one that state or private sector actors identify as a “risk” and offer a “service”, in exchange for financial resources, to help them off-set that risk. All revenues generated by providing the services could be collected in a forest-related fund. Perceived risks might be triggered by impending regulatory legislation or research findings and would inspire voluntary action by actors to manage that risk. For example, offer concerned stakeholders an “insurance policy” to hedge the risk of climate change regulatory legislation in exchange for financial resources. Financial and insurance institutions could play a role in creating specific “risk” services and products.*

## Private Sector Engagement



- **Broker for Private Initiative**
- **Corporate Social Responsibility**
- **Matching Funds**

### Engaging the Private Sector

Actions by the private sector have potential to provide very large amounts of financing for sustainable forest management initiatives. With vast financial resources and technical capabilities, the private sector is frequently identified as a potential funding partner for forests. In the year 2000, the gross value added in the forest sector totaled about USD 354 billion and in 2003, the global trade in forest products totaled about USD 150 billion. In 2000, nearly 13 million people were employed in the formal forest industry sector and small-scale forest enterprises are among the top three non-farm rural commercial activities in most countries (FAO 2005).

The NLBI recognizes the important contribution of voluntary public-private partnerships and private sector initiatives at all levels to achieve effective implementation of sustainable forest management and support national strategies, plans and priorities related to forests. The World Summit on Sustainable Development in 2002 also called for Type 2 agreements to engage the private sector and NGOs with governments to address multiple dimensions of sustainable development. The purpose of public-private partnerships is to facilitate financial investments that enhance the management, conservation and sustainable development of all types of forests for human well-being. This necessitates an appropriate set of incentives to engage the private sector without compromising the financial sustainability of forest initiatives. Possible services and products might include:

*i. Broker for private initiatives* – In the past few years companies are increasingly interested in financing projects for sustainable forest management. Due to a lack of sufficient capacity to match private funding with potential projects there is a niche for a FFM to play a role as a broker between the private sector and projects/programs.

To take advantage of this new interest in “greening” of business, a FFM could help connect private sector actors who wish to find “greening” opportunities and public sector actors, who need assistance with their own sustainable forest initiatives. In a sense, this liaison would serve as an information and logistics “clearinghouse” for mutually beneficial public-private partnerships.

*ii. Corporate Social Responsibility* – In the framework of corporate social responsibility, facilitate private sector participation in sustainable forest management initiatives.

*For example, a FFM could help forest product companies to participate in programs that support sustainable forestry practices or help them to donate part of their revenues to sustainable forest and forest-related initiatives.*

*iii. Incentives for Action* – Encourage public sector actors to offer incentives for private sector actors to contribute financial support for sustainable forest management. Incentives could include favorable tax treatment and government procurement contracts and would entice corporations to donate additional revenues to initiatives that benefit forests. For example, a country might offer tax incentives to industries that donate a portion of their revenues to the FFM.

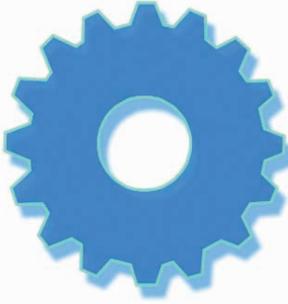
*iv. Matching Funds* – Establish monetary or non-monetary matching requirements for stakeholders wishing to use FFM resources (such as risk insurance, participation in a corporate program, etc).

*v. UNFF Seal of Authenticity* – Establish a set of criteria by which to measure a range of desired behaviors including product production, livelihood enhancement efforts, sustainable forest management, and partnership achievements. Initiatives that meet the criteria would receive a UNFF endorsed seal of authenticity. Authenticity seals or certifications could publicly recognize high performing processes, similar to UNESCO approvals, or ISO or LEED certifications.

*vi. Green stars or heritage value* – Create incentives for voluntary philanthropic giving that maintain forest ecosystem services or protected areas by designating certain areas as high “need” or “green” areas. Possible coordination with UNESCO World heritage designations might be appropriate in some cases. Incentives might include public recognition and UNFF endorsement of initiatives.

*vii. Eco-tourism* – It is estimated that nature tourism and ecotourism, much of which focuses on forest landscape, constitutes 10 -20 % of the total value of travel and tourism that exceeds about USD 4.2 trillion annually (FAO 2005). A FFM could support areas that wish to generate economic value. For example by publishing a guide or serving as a source of information on eco-vacations or trips that cause minimal adverse impact to the environment.

## Mobilizing Civic Leaders



- **Individual donors and philanthropy**

- **Forest Champions & Ambassadors**

### Mobilizing Civic Leadership

The globalization of media has created new spaces for educating people, exploring ideas, and building support for initiatives around the world. Cultivating long-term and strategic partnerships with influential individuals offers opportunities to generate both financial and policy support for forest initiatives. The Clinton Global Initiative has illustrated the power of engaging wealthy individuals and foundations to address global problems including HIV Aids

and Global Warming. The transformation of disease research by the Bill and Melinda Gates Foundation and Warren Buffett gifts, the enhancement of UN capability by the Ted Turner Foundation, the protection of entire water sheds in Kamchatka by the Moore Foundation, or the protection of Patagonian forests by Thompson illustrate the power of this approach. Possible options for working within this new media environment include:

*i. Individual donors* – Cultivate a network of wealthy (and newly wealthy) individuals for philanthropic financial support for forest protection.

*ii. Champions/forest ambassadors* – Cultivate relationships with well-known and influential individuals who can serve as a champion spokesperson for forests and generate interest in forest initiatives.

*For example, Monarchies* – Cultivate relationships with royal family members whose actions are followed by public audiences. Target royalty to serve different functions based on their countries. For example, royalty from developed countries could generate financial support or influence consumer behaviors, while royalty from developing countries could generate support for both supply-side and demand-side management.

*Goodwill Ambassador* – Garner support from well-known individuals who have the ability to influence and shape global agendas. Figures such as former heads of state could use their power to attract global attention to their preferred causes.

*iii. Engage the media* - Build relationships with media outlets and promote maximum exposure of the achievements for forests and for the contribution of the donor.

## **Towards a Forest Financing Mechanism**

To realize the multi-faceted Global Objectives on Forests set forth by UNFF-7 and to reach consensus on a means for implementation, a broader approach to mobilizing additional resources is needed. A FFM that is based on a portfolio of products and services has the capacity to capture the differential competencies of states, civil society, and the private sector. It also offers the flexibility needed to address diverse and evolving priorities, interests, and realities on the ground.

One of the great strengths of such an approach is that not all products and services need to be launched simultaneously. A modular approach can be taken. Moreover, it is a mechanism that is flexible, not only because multiple parties can use it in diverse ways, but also because it offers the ability of self-correction and internal learning by doing.

We do believe, however, that four key sets of financing ‘products and services’ need to be the basis of such a mechanism. Note that these four sets capitalize on the energies of governments (through public funding), the private sector (through market engagement), civil society (through philanthropic and civic leadership), and of nature itself (through ecosystem services).



*Credit: Photobucket*

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## 4. Thoughts on Governance

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Within the proposed portfolio approach of the FFM, a variety of actors and stakeholders are envisaged to employ multiple financial products and services to generate new and additional resources for forests and forest-related initiatives. This expanded mechanism will need a governance structure that reflects the diversity of stakeholders and beneficiaries. A governance structure that is as innovative as the mechanism itself. International processes, such as those within the field of plant genetic resources, have Executive Boards to govern their operations and activities. The FFM could create a similar Executive Board structure to govern its portfolio of products and services under the NLBI. This Board could have several tasks including:

- To ensure that the policies, programs and plans of the FFM are consistent with the Multi-Year Program of Work of UNFF and operate within the framework of the NLBI;
- To oversee an efficient and effective management of the financial resources assembled from multiple sources by and through FFM;
- To monitor, assess, and report on progress;
- To approve a yearly work program;
- To facilitate further development of a funding strategy, including new financial products and services on the basis of the ongoing assessment of its work (adaptive management).

Executive Board membership could consist of representatives from developed and developing countries, the private sector, NGOs and civic leaders. As in other UN institutions, this Executive Board could consist of the following members:

- 5 representatives from the UNFF, representing the UN regions (on a rotation scheme; these could be the Bureau members of UNFF);
- 3-5 representatives from the private sector (CEO's of forest related companies/financial institutions);
- 3-5 representatives from NGOs (e.g. IUCN, WWF) and Indigenous Peoples;
- 3 civic leaders/celebrities/royalties;
- Director, UNFF Secretariat and The Chair, CPF as ex-officio members.

A particular role is envisaged for the Collaborative Partnership on Forests to advise the Executive Board on fundraising and other financial activities related to the activities of the FFM. A staff unit, which could comprise staff members of international organizations, the private sector and non-governmental organizations, could conduct the operational activities.

Since it is difficult to predict in advance which options and partnerships will be successful, it is essential for the Board to deploy several diverse tracks simultaneously, and use an adaptive management strategy that allows for easy shifts in effort and resources as conditions dictate. Importantly, this approach would require a much more robust ongoing assessment capability than is traditionally the case.

## 5. Conclusion: Looking Forward

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This proposal for a portfolio approach to an expanded Forest Financing Mechanism (FFM) will require several actions in order to be implemented because of the following unique characterizations:

- It supports the implementation of the NLBI and the Global Objectives of Forests;
- It involves governments, international agencies and non-governmental actors including the private sector, NGOs and philanthropic leaders, in order to enlarge the available financing potential through a portfolio of financial products, services, and actions;
- It is modular and flexible, and built up from many components that provide multiple layers of support and is a closer match between financing opportunities and the diverse constituents that are part of forest-based economies and management;
- It will require an ongoing assessment of effectiveness and an adaptive management process for selecting an optimal mix from among the many possible components.

An expanded FFM would require an alternative to traditional international sustainable development governance, and decisions on the following items:

- A set of financial products and services that should be the focus of the FFM;
- A structure for an executive board of the Forest Financing Mechanism, made up of governments, international organizations, private sector and NGO representatives, including forest users and Indigenous Peoples, and the two ex officio members noted above, that can make the decisions concerning adaptive management of the multiple components of the portfolio;
- A set of criteria for judging performance and effectiveness.

The international forest community has an opportunity to provide leadership and to bring real and meaningful change in international governance. A new FFM that acknowledges the realities on the ground, focuses and engages on key interests of the multiple forest actors around the world should mobilize new and significant resources for forests. With a bold, innovative and collaborative forest financing mechanism, the international forest community can benefit from truly complementary partnerships.



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*Credit: N. Hindori*

## **Annexures:**

### **Annex A1:**

Forest Benefits and Services

### **Annex A2:**

Notes on Present and Potential  
Sources of Forest Financing

### **Annex A3:**

Types of Policy Interventions

### **Annex A4:**

Principles of Good Design

**Annex A1.****FOREST BENEFITS AND SERVICES**

Forests are a major component of planet Earth's ecological and basic life support systems. Forests are also threatened directly by a wide range of human activities or by indirect consequences of human actions as well as by natural disasters.

To enhance the capacity of global actors to manage forests, members at the 2007 Session of the UNFF agreed on a Non-legally Binding Instrument (NLBI) to guide forest policy and action, including to generate new and additional financial resources to enhance international cooperation and to support national, sub-regional, regional and global policies and actions. The need for a new voluntary funding mechanism is precipitated by a notable decline in the channeling of sufficient resources from domestic as well as international sources for strengthening the management, conservation and sustainable development of forests to enhance their contribution to realizing societal agenda.

The UNFF recognized the "...importance of the multiple economic, social and environmental benefits derived from goods and services provided by forests and trees outside forests." Furthermore, it emphasized "...sustainable forest management can contribute significantly to sustainable development, poverty eradication and the achievement of internationally agreed development goals including the Millennium Development Goals." Accordingly, at the national level, UNFF proposed the integration of "... national programmes or other forest strategies into national strategies for sustainable development, relevant national action plans and where appropriate, poverty reduction strategies." As many benefits and environmental services are received far beyond the boundaries of the countries where their forests are located,

UNFF, in recognition of our collective interest and global responsibility, advocated enhanced promotion of "international cooperation, including South-South cooperation and triangular cooperation." In this context, an overview of: the type and the state of forests of the world; the significance of the multiple benefits and services provided by forests; and the wide range of their beneficiaries and stakeholders are summarized below.

**Forest Cover**

Global Forest Area is estimated to be about 4 billion hectares, covering nearly 30.3 % of total land area. It is estimated that nearly 44 % of the world's forests are located in the boreal and temperate eco-zones, 47 % in the tropics and 9 % in the subtropics (FAO 2001, 2005). It is important to note that the world's forest cover is unevenly distributed. More than 50% of the world's forests are located in only five countries, namely, the Russian Federation, Brazil, Canada, USA and China. Nearly 66 % of the world's forest cover is located in only 10 countries, and about 82% in about 25 countries; about 170 countries share the remaining 18 % of the forest cover. Sixty-four countries, located mostly in North Africa, West Asia and small islands, have less than 10% of their land forested and are recognized as "*low forest cover countries*". At the global level, forest area per capita is 0.62 hectares (FAO 2001).

**Economic Benefits from Forests**

In the year 2000, the *gross value-added* in the forestry sector totaled about US\$ 354 billion and in 2003, the *global trade* in wood products totaled about US\$150 billion (Lebedys 2004). In 2000, nearly 13 million people were employed in the formal forest industry sector. It is important to note that small scale forest enterprises are among the top three non-farm rural commercial activities in most countries. The

global round wood production in 2003 was about 3,342 million cubic meters. A relatively small number of industrialized countries account for the majority of exports of wood products.

Of the total international trade in forest products, Europe accounts for nearly 50 %, North America another 30% and the developing countries about 20 %. The Developing countries are gradually increasing their share of wood and wood products in international markets. The value of travel and tourism exceeds US\$4.2 trillion annually or more than 10 % of the global GDP. Nature tourism and ecotourism, much of which focuses on forests, is estimated about 10 to 20 % of the total (FAO 2005).

Non-wood forest products are critical in daily subsistence of millions of people including indigenous people that live in around forests. Non-wood forest products are also important in local economies. In 2002, the import value of 28 unprocessed non-wood forest commodities amounted to about US\$2.7 billion, while the import value of another 34 commodities at different stages of processing amounted to US\$7.0 billion. The trend of these imports is increasing (FAO 2005).

### **Environmental Benefits and Services**

World-wide forests and their soils store approximately twice as much carbon as is present in the atmosphere as carbon dioxide (IPCC LULUCF, 2000). Deforestation accounts for nearly 20 % of the global greenhouse gas emissions that contribute to global warming (World Bank 2004), and in some years, forest fires may contribute even more. Forests are also a rich reservoir of biodiversity that supports 90% of terrestrial species on earth (World Bank, 2008).

The ecological role of forests in creating and conserving soil by preventing erosion, and in storing and regulating the flow of

water has long been recognized.

*“(T)he plains of Pheleus were once covered in rich soil, and there was abundant timber on the mountains. .. But not so long ago trees fit for vast buildings were felled there.*

*The yearly water from Zeus was not lost as it is today, by running off a barren ground to the sea. The moisture absorbed...percolated to the hollows, and so all quarters were lavishly provided with springs and rivers. By comparison with the original territory, what is left now is like the skeleton of a body wasted by disease. The rich, soft soil has been carried off. Only the bare framework of the district is left.” (Plato 4th century BC)*

Forests play an important role in the hydrological cycle through transpiration of soil water to the atmosphere, and influence regional weather by affecting rainfall and temperature. The water catchments areas of almost all rivers in the world are either forested or were forested. In arid environments particularly, forests serve as a crucial safety net by providing food security in dry season which appear to be becoming increasingly frequent.

In humid and sub-humid tropical countries, the mismanagement of woodlands contributes to significant soil losses estimated to be equivalent to about 10 percent of their annual agricultural gross domestic product (GDP).

### **Forest Heritage**

An estimated 12.4 % of the world’s forest area is now designated as protected areas as classified by the World Conservation Union. The area of certified sustainably managed forests has grown exponentially during recent years. As of mid-2004, about 176 million hectares of forests, representing only 4% of the world’s forests (UNECE/FAO 2004) were certified. Most of these certified forests are located in Eu-

rope and North America. Forests and sacred groves are revered in many cultures for their spiritual value.

### **Forest-dependent People**

It is estimated that globally, nearly 1.6 billion people depend heavily on forests for their subsistence including fuelwood, fodder, medicinal plants and forest foods. While similar estimates are unavailable for sub-Saharan Africa, the number is perhaps several hundred millions. It is estimated that about 60 million indigenous people live in and around forests and are almost wholly dependent on forests (World Bank 2004). An estimated 25 % of the forests in most forested countries is owned or controlled by indigenous and rural communities (Scherr *et al* 2004). It is estimated that bushmeat from a wide range of wild animals accounts for up to 85 % of the protein intake of people living in and around forests (FAO 2001). Natural products are the only source of medicine for 70-90 percent of people living in developing countries (FAO 2001).

In developing countries, about 120 million people depend on agroforestry farming systems that contribute to agricultural productivity and generate income (World Bank 2004).

About 53 % of the world's round wood production is used as fuel. While the developing countries use nearly 76 % of their total roundwood production as fuelwood, the proportion of fuelwood in the G8 countries is only 14 % (FAO 2005).

### **Threats to Forests**

Forests are threatened directly by a wide range of human activities as well as by the indirect consequences of human actions as well as by natural disasters. These threats include encroachment of forestland by human settlements, transportation corridors, seismic lines and mining, floods, fires

and insect and disease epidemics. The following two threats are of particular significance at present.

*Deforestation* - Alarming rates of deforestation and forest degradation have been experienced during the past four decades. The consequent impact has been on: the structure and function of forests; the wide range of forest-based benefits and services; and on the well-being of the people worldwide that depend on forests. According to a recent Forest Resource Assessment (FAO 2005), while the annual loss of forest world-wide is about 13 million hectares, the net forest loss, from 1990 to 2000, was 8.9 million hectares per annum and from 2000 to 2005 it was 7.3 million hectares per annum. The net reduction in forest area is attributed to new planting and natural expansion of existing forests. Forest dependent people, living in and around forests are most vulnerable to the consequences of deforestation.

*Illegal Logging*- "Forest crime, including illicit activities such as illegal logging, illegal occupation of forest land, woodland arson, wildlife poaching and encroachment of both public and private forests is rampant throughout the world" (World Bank 2006). In developing countries, losses in assets and revenue, attributed to illegal logging, are estimated to be about US\$10 billion – an amount six times the total official development assistance (ODA) dedicated to sustainable management of forests. The livelihoods and well-being of nearly one billion forest dependent people, living in and around forests in developing countries, are at risk with the consequences associated with these illegal activities. Illegal logging has also been implicated as a revenue source for the illicit weapons trade.

### **Forest Stakeholders**

That forest is a cross-sectoral issue is illustrated by the fact that reference to forest is

made in about 50 % of the 40 Chapters of Agenda 21 agreed at the UN Conference on Environment and Development held at Rio in 1992. Accordingly a very wide range of stakeholders pursue their special interests, including the following:

- Governments
- Multilateral organizations (with Global and Regional mandate)
- Members of Collaborative Partnership on Forests
- Environmental Conventions, their Secretariat and constituencies
- Local communities of Indigenous People as well as their national and international organizations
- Environmental NGOs including the constituencies the International Environmental Agreements
- Development NGOs
- Forest Industry and their national, regional and international organizations
- Small/ Family Forest Owners Associations: national and regional
- Various regional and sub-regional initiatives and “Processes” engaged in regional cooperation on forest and in cross-sectoral forest-related issues.

#### **Four Realities of Forest-related Concerns**

Forest management and utilization is complex, politically sensitive and a cross-sectoral issue. There is a great diversity of forest types and of forest endowment of individual countries. It is widely recognized that whereas there are overarching guiding principles governing sustainable management (i.e., management, conservation and sustainable development) of all types of forests, countries have the sovereign right to manage and use their forests in accor-

dance with their own priorities as defined in context of their social, economic and political conditions. There is not any single, rigid policy and forest management “template” that is equally applicable worldwide. It has been suggested that per capita income and per capita forest cover define four broad forest-related “realities” in the world and that these two parameters are the drivers of the areas of priority concern of countries. Based on these parameters, a typology of “four realities has been proposed (Maini 1996, 2003).

*See more discussion in Chapter 2 of this model of understanding forest concerns*

Based on per capita income as an indicator of economic development and per capita forest cover as an indicator of forest endowment, it is possible to recognize “four realities” in the world.

Countries with high per capita income and richly endowed with forests are also major producers and consumers of forest products. Industrialized countries with scarce forest cover rely heavily on imports from offshore sources to meet their demand for wood and wood products. On the other hand, forest rich developing countries view forests as an important instrument of economic development. A very large proportion of people in developing countries with scarce forest cover (“*low forest cover developing countries*”) depend on forests for their daily subsistence. Nearly a billion people, including the indigenous people, in both industrialized and developing countries, live in and around forests and depend on these forests for their subsistence and livelihoods. The position/location of individual countries in this typology changes over time (Wang et al 2007). The design of an *effective* FFM would need to consider these *four broad realities on the ground*.

**Annex A2.****NOTES ON PRESENT AND POTENTIAL SOURCES OF FOREST FINANCING**

On behalf of the Collaborative Partnership on Forests (CPF), The Forestry Department of FAO maintains very rich information (*Source Book*) on various types of funding available to assist sustainable forests management from ODA, bilateral and multilateral donors as well as the private sector. The Sourcebook documents these sources in a searchable database now available through FAO's website. FAO acts as a Sourcebook repository.

Relevant information can be accessed at the following websites:

*FAO Forestry Department Site:*  
<http://www.fao.org/forestry/site/site-index/en/>

*Collaborative Partnership on Forests:*  
<http://www.fao.org/forestry/site/site-index/en/>

*Secretariat, UN Forum on Forests:*  
<http://www.un.org/esa/forests/n-sep06.html>

*Source Book:*  
<http://www.fao.org/forestry/site/cpf-sourcebook/en/>

*Global Funding Mechanisms:*  
<http://www.fao.org/forestry/site/21647/en/>

*Developing funding proposals:*  
<http://www.fao.org/forestry/site/7857/en/>

**Current Financial Assistance**

Estimating ODA trends in the forestry sector is problematic as consistent information is not readily available. According to the Development Assistance Committee of

OECD (*as cited by Persson 2003*):

- Bilateral aid to forestry in 1973-1998 amounted to USD5 billion and the ODA lending by multilateral development banks totaled about USD 3 billion.
- From 1994 to 1998, the total ODA for forestry was USD480 million per year, representing about 1 % of the total ODA.
- The assistance to forestry is very unevenly distributed. Of the total annual bilateral assistance to forestry, the top 10 recipients in the world, who received 70% of the total assistance to forestry, were located in Asia and South America. The top 10 recipient countries in Africa received 60%, in Asia 97% and in Latin America 81%. The OECD statistics show that about 120 'remaining countries' received a total of USD47 million.

A 1999 analysis by the Program on Forests (PROFOR) estimates that from 1986 to 1997, ODA from bilateral and multilateral resources in the forestry sector rose from US\$784 million in 1986 to US\$1.270 million in 1997.

**Trade in Forest Products**

- Globally, the gross value added by the forest sector (including forestry, logging and related activities, the manufacturing of wood products, paper and paper products) in 2000 is estimated to be about USD 354 billion or about 1.2 % of GDP. Globally, forestry per se contributes only USD 78 billion of the gross value added or constitutes only about 22 % of the GDP (FAO 2005).
- The value of global imports of wood based forest products, including fuelwood and charcoal in 2000 amounted to USD 141 billion, while 34 non-wood forest product commodities, originating from both inside and outside forest had a total import value for 2002 of USD 7 billion (FAO 2005).

## Private Sector Investments

- It is assumed that the bulk of the investment in forestry is from local sources, while foreign sources of financing play an important role in the processing industries in many countries. As of 2004, about 93 % of direct investments in the forest sector as a whole were from private investors and amounted to USD 63 billion (Finland 2006). This represents about 1.5 % of global direct investment and was mainly domestic direct investment (90 %).

- The UNCTAD data from 2005 and Tomaselli's study on investment trends in the forest sector (Finland 2006) show that foreign direct investment (FDI) in the primary sector activities associated with forestry (as well as agriculture, hunting and fishing) are concentrated in developing countries. However, foreign direct investment in the manufacturing and processing sector of the forest sector (i.e., forest industries) is much greater in developed countries than developing countries.

## Environmental Services

The World's trees store an estimated 425 gigatons of carbon, and their soils an additional 1050 gigatons; the atmosphere contains 760 gigatons (IPCC LULUCEF, 2000). Forest fires and decaying wood after deforestation release one-fifth of Earth's annual emission of carbon dioxide, approximately the same as the entire transportation sector (IPCC AR4, 2007). Financing forest protection, fire prevention enhanced carbon storage and reduction in carbon emissions is a large potential service payment option.

- There are nearly 30 carbon management systems and funds worth USD 3.8 billion (Finland 2006).
- Forests provide enhanced water storage and reduce flood potential, a service that can be much less expensive than large

flood control projects.

## Forest Heritage

In 2000, about 12.4 % of the world's forest area is now designated as protected area as classified by the World Conservation Union (FAO 2001).

- GEF financing related to sustainable forest management (SFM), from 1997 – 2005, amounted to 183 million. GEF supported 236 projects on forest conservation (53%), sustainable use of forests (12 %) outside protected areas and SFM in wider production landscapes (35 %) beyond strictly forest (Finland 2006). GEF has a larger potential to contribute financial support to SFM than its past and present activities indicate.

- Potential opportunities are offered by "Debt for Nature Swaps," although the pace of these projects seems to have slowed in recent years.

## Ecotourism and Nature Tourism

The value of travel and tourism exceeds US\$4.2 trillion annually or more than 10 % of the global GDP. Nature tourism and ecotourism, *much of which focuses on forests*, is estimated about 10 to 20 % of the total (FAO 2005).

**Annex A3.****TYPES OF POLICY INTERVENTIONS**

In the face of the realities on the ground, there is not any single, fixed policy and forest management “template” that is equally applicable world-wide. Nor is there a single, financing mechanism that is equally appealing to all potential donors. Policy makers engaged in international cooperation including financing must assess their goals, available resources and the contexts in which they are working.

Based on this assessment, instead of selecting just one option for all issues, it is suggested that UNFF identify a “basket” of possible options that can fit the variety of challenges and the variety of country needs and priorities in terms of forest financing. This selection process is conducted in order to establish appropriate and flexible policies that address the realities on the ground. While our proposals for the ‘basket’ of options and policy choices is discussed in the main text of this report, this Annex will outline some of the forms that policy interventions have taken in other arenas and might take in the case of a FFM. The purpose of this Annex is to outline the type of options that we can choose from and build upon.

**Institutional and Legal**

Set by state or multilateral actors, these policies create incentives for compliance and implementation of policy initiatives. They may also aim to promote voluntary changes in stakeholder behaviors in order to support larger policy goals. In the context of financing, these policies aim to generate new revenue streams for policy initiatives. Made at sub-national, national, or international levels, these interventions create voluntary or mandatory requirements for stakeholders to finance policy initiatives. Specific mechanisms used to

shape policy or generate revenue include to:

*Clarify authority* – State or sub-state authority over natural resource use can be challenged, in some circumstances, by legal and institutional actions. Laws and policies made at international, national and sub-national levels may: protect scarce resources; challenge the authority of governments to use resources in a sustainable way; and leverage the right to generate revenues for policy initiatives. Examples of clarifications of authority over the use of a natural resource include: policies on trade of endangered species under the Convention on International Trade in Endangered Species (CITES), national management of watersheds, and environmental service fees.

*Create rights and obligations* – State actors may build consensus on a set of rights that individuals, flora, fauna or ecosystems are privileged to protect and that formal systems of authority are obliged to uphold. The creation of these rights and obligations affording stakeholders formal legal rights, such as those afforded under the United Nations Declaration of Human Rights. They also provide stakeholders an official channel through which they may defend and seek compensation if those rights are violated. Obligations imposed on states and corporations, such corporate requirements to promote sustainable livelihoods, serve similar purposes and afford stakeholders opportunities to seek compensation if those obligations are left unfilled.

*Set regulatory measures* – Regulations set expectations and limitations for behavior. State actors may use permits, required approvals, targets and limits to curb behavior that is detrimental to their policy goals. These regulatory measures can offer a revenue stream for state endorsed initiatives. The threat of regulations may also inspire voluntary actions by stakeholders to make

policy relevant modifications to their own behavior in advance of the regulation.

For example, in anticipation of an international agreement to limit the use of ozone depleting chemicals, several U.S. chemical companies, including Dow Chemical, developed alternatives chemicals to ozone depleting chlorofluorocarbons (CFCs). Their discoveries and interest in fostering markets for their new products contributed to the success of the Montreal Protocol on Substances That Deplete the Ozone Layer. As there is no legally binding instrument on forests, an example of market driven change in behavior is a range of schemes dealing with certification of sustainably managed forests.

*Correct undesirable behaviors* – Institutional or legal policies may be used to safeguard against undesirable behaviors in the future or correct for harmful behaviors done in the past. These policies can take the form of rewards for positive behavior, or penalties for undesirable behavior.

### **Voluntary Actions**

Targeting both state and non-state actors, voluntary policy interventions appeal to stakeholders' senses of civic and moral responsibilities to protect people and resources. Targeted actions include appealing to countries, organizations and individuals to make voluntary philanthropic contributions to support policy initiatives. These actions convince stakeholders of their responsibility to take their own action to address the problems facing people and resources. Potential voluntary donors include: individual philanthropists, such as Bill Gates or Ted Turner; long-standing donor organizations, such as the Ford Foundation or Bertelsmann Stiftung; and private sector contributors, such as the Corporate Giving section of many companies. These donors make voluntary contributions to initiatives for many reasons including:

*To Appeal to Civic Duty* – Policies can mobilize individuals, governments and corporations, particularly in developed countries, to feel a sense of duty to off-set their use of financial and natural resources with those who are less fortunate.

*Call upon citizenship* – National pride is a powerful force that can lead citizens to take steps to support initiatives in the name of tradition, honor or national obligation. For example, Canadians have pride in their forest stewardship, and as such feel a sense of pride in lending their support and expertise to forest stewardship efforts in other nations.

*Addresses wrongs* – Policies use image campaigns to appeal to donors to address the harms done to a community, environment or resource. These policies can raise awareness and financial resources to institute change. Wildlife non-governmental organizations, in particular, have proven to be quite skilled at raising awareness and donations to support their causes to protect animals around the world.

### **Markets for Services**

A market is a mechanism that allows people to trade goods and services by using a pricing mechanism that facilitates the transfer financial resources from an entity that wishes to purchase a good or service to an entity that provides those goods or services. These markets are designed to minimize negative externalities that result from “uncharged” use of common goods. Market-based policies include:

*Creating markets* - There is international precedent for environmental markets, including for carbon dioxide and sulfur credits. Policies can create new markets to include other forest-related services including those provided by soils, water, trees and diverse plant life.

*Testing Incentives* – Markets can serve to

test the inclinations of consumers and corporations toward new services or products. Those tests help to direct state and private sector initiatives for policies and product development activities that help to advance policy agendas. For example, without committing significant capital to the project, General Motors is testing the potential market value of solar panels by leasing space on its roofs to start-up solar panel vendors. GM purchases the electricity generated from the solar panels, creating additional revenue for solar panel vendors and tests newer products before investing in the products themselves.

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**Annex A4.****PRINCIPLES OF GOOD DESIGN**

More than just collaboration, the evolution of environmental policy-making over the past thirty-four years since the UN Conference on Human Environment held in Stockholm (1972), UNCHE offers many lessons for good policy design. Politically sensitive and complex, environment issues, including the forest issue sometimes divide nations along lines other than South and North.

From the lessons of Stockholm, Rio de Janeiro, Johannesburg and other intergovernmental Conferences, we identify six principles of design that are important to consider when evaluating a Forest Policy Instruments and Mechanism for Forest Financing.

**Stakeholders**

Stakeholders are the persons and entities that are in some way impacted by a proposed policy. They can be government, private sector, and non-governmental organization actors. Their roles range from donors to financing recipients from administrators to enforcement bodies. Their reasons for participating abound.

From past experiences, we have learned to *PAY ATTENTION TO STAKEHOLDERS*. Political and economic interests, global and domestic political dynamics, history and future goals including South-North dynamics, public-private sector relationships and cultural beliefs impact how stakeholders will participate in any policy instrument. It is necessary to be able to assess what interests and positions participants might have in the goals and administration of a policy.

We have also learned to *THINK BEYOND NATIONAL BORDERS*. NGOs and private sector actors offer largely untapped possibilities for financing, administration and

implementation. Opportunities for increased participation of non-governmental actors could fulfill the endorsement of “type two” partnerships made by nations at the World Summit on Sustainable Development in Johannesburg.

**Incentives**

Incentives are the policies that motivate and entice targeted audiences to implement a policy goal. Incentives ought to be appropriate for the intended audience and help to achieve a desired goal.

We have learned from previous experiences that *GOODWILL IS NOT ENOUGH*. To ensure implementation and instrument sustainability, particularly when soliciting financing for policy initiatives or seeking commitments to fulfill implementation, careful consideration and framing of incentive structures is critical. Incentives that meet a “need” of a participant will foster on-going participation. When policy goals aim to generate financial resources to support long-term projects, effective incentives help to secure sustainable financing sources. Stakeholder participation is subject to political, economic and social fluctuations and failure to consider why and what motivates stakeholders to participate in an initiative will increase the risks of creating an un-sustainable instrument that does not achieve its intended goals.

**Coherence**

Coherence ensures that the selected policy or mechanism addresses the problem that it sets out to solve. The policy or mechanism must be relevant to current environmental, economic and political dynamics and be consistent with the needs of stakeholders.

We have learned that *A GOOD IDEA IS NOT ENOUGH*. A policy or mechanism must be relevant to those affected by it. This necessitates consideration of the interests and constraints of participating stake-

holders including: reflection on North-South dynamics, domestic and international politics, ecological realities, governance, economic, human and institutional capacities, and predictable impacts on other policy areas, forests, and people. Failure to consider the full range of coherence issues may result in policy that is popular in principle but not implementable. It may also create policy that is not consistent with the needs of affected ecosystem and populations.

### **Governance**

Governance refers to the administration of the policy or mechanism. More specifically, governance considers the individuals, states and institutions that are involved in the creation and implementation of a policy or mechanism. It also identifies the political space that the policy exists in and analyzes how this affects the policy's ability to achieve its goals.

We have seen that *GOVERNANCE IS POLITICAL*. Adopting a governance strategy requires careful consideration of existing institutions, political dynamics, resources and turfs. Failure to include the interests of all relevant stakeholders in the decision-making process will hinder implementation. We have also learned that *REDUNDANCIES ARE INEFFICIENT*. The creation of new institutions to address old problems will lead to duplication of effort, donor fatigue, impact fragmentation and turf wars. These outcomes are undesirable and limit a policy's ability to achieve its goal.

### **Linkages**

Linkages refer to the identification of other available resources that could be tapped to help implement a policy or mechanism. Resources include other institutional structures, policy agendas and initiatives.

We have seen that *LINKAGES ARE A DOUBLE-EDGED SWORD*. Creating linkages between institutions and goals can help to generate new resources and achieve greater results. Linkages can also foster turf wars over financing and ideas, contribute to donor fatigue, lead to "mission drift," and divert attention and financing away from other important causes. While generally undesirable, these outcomes also hurt local stakeholders and environments and ultimately jeopardize the policy or mechanism's ability to achieve its goals. Linkages must be pursued with careful consideration of the policy's goals and of the political, social and economic environment in which they are created.

### **Performance**

Performance measures the policy's achievement of its goals and the performance indicators need to be defined when the goals, targets and timetables are initially established. We have learned that *PERFORMANCE IS MULTIDIMENSIONAL*. Evaluation of performance must consider: (i) compliance; (ii) effectiveness; and (iii) implementation. Compliance evaluates how the rules and procedures that the policy sets forth are being followed. Effectiveness evaluates the impact that the policy has on its stated goals. Implementation evaluates how the policy is carried out.

*PERFORMANCE INCLUDES PEOPLE*. All performance criteria should be viewed as a relationship between the stated ecosystem goals of the policy and the people that it impacts. The performance of a policy should balance the interests of people and the interests of the ecosystem.

After 15 years of discussions and negotiations, the UNFF in 2007 adopted a landmark international agreement on forest policy, implementation, and cooperation that sets a new standard in forest management. This new global agreement, the “Non-Legally Binding Instrument on All Types of Forests” (NLBI), calls for greater international cooperation and national action to reduce deforestation, reverse the loss of forest cover, prevent forest degradation, promote sustainable livelihoods, and reduce poverty for all forest-dependent peoples. Today, the challenge that remains is how to mobilize new and additional financial resources for forests in order to enhance their contribution to human well-being at the local, national, regional, and global levels. This initiative outlines a way to expand the current approach to mobilize forest financing as well as to establish an innovative, effective and efficient Forest Financing Mechanism. This proposed expanded financing mechanism would involve a new multi-actor, multi-pronged, and multi-level framework for financing a wide range of needs for forest initiatives throughout the world. This initiative was conceived and funded by the Netherlands Ministry of Agriculture, Nature, and Food Quality.

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