Food and Agriculture Organization of the United Nations

Towards effective national forest funds

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Cover photo:
Improving national forest funds presents both a challenge and an immense opportunity for the global forest community (© Christiane Ehringhaus)

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by

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Foreword

With growing recognition of the critical roles played by forests in addressing global challenges such as climate change, food security and poverty alleviation, supporting sustainable forest management (SFM) remains key. Yet the financing of SFM continues to be a challenge; it has been a standing item at relevant global fora for decades.

Strengthening financing is about more than just raising money. Broadening and diversifying the financial base for SFM entails, among other things, effectively demonstrating the multiple benefits of investments in forests; creating new and innovative revenue streams; establishing viable and lasting partnerships with other economic sectors; and strengthening the financial management capacity of forestry institutions.

National forest funds (NFFs) have gained international attention in recent years as potential means for addressing the issue of financing SFM. A forest financing study by the Collaborative Partnership on Forests' Advisory Group on Finance, and the Tenth Session of the United Nations Forum on Forests, noted the potential role of NFFs in absorbing, managing and using domestic and foreign investments to support SFM. Nevertheless, despite the existence of NFFs in more than 50 countries, limited information is available on how NFFs work, the experiences gained from their operation, and the lessons learned.

This publication, *Towards effective national forest funds*, addresses the need for more information on the way NFFs work and how best to establish and manage them. It shares some of the lessons that have emerged from the establishment and management of NFFs with the aim of supporting countries in designing and operating NFFs effectively according to their specific needs and circumstances. Based on a review of practical experiences, this publication outlines the general architecture and design elements of NFFs, and the potential approaches and actions that can be taken to improve their performance.

Through this publication and related support for capacity building, FAO hopes to contribute to the development of NFFs that are able to translate forestry investments into effective national action, promoting sustainability.

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Acronyms and abbreviations

AFF	African Forest Forum
BPK	Supreme Audit Board (Indonesia)
CAF	Compensatory Afforestation Fund (India)
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza
CIFOR	Center for International Forest Research
CTF	conservation trust fund
FAO	Food and Agriculture Organization of the United Nations
FCA	Forest Conservation Agreement (Cuenta del Acuerdo para la Conservación de Bosques) (Colombia)
FNDF	National Fund for Forest Development (Fundo Nacional de Desenvolvimento Florestal) (Brazil)
FRDF	Forest Resource Development Fund (Lao People's Democratic Republic)
FREDDI	Fund for REDD+ in Indonesia
FONAFIFO	National Forest Financing Fund (Fondo Nacional de Financiamiento Forestal) (Costa Rica)
FONERWA	National Climate and Environment Fund of Rwanda
FUNDECOR	Fundación para el Desarrollo de la Cordillera Volcánica Central (Costa Rica)
GEF	Global Environment Facility
GIZ	Deutsche Gesellschaft für internationale Zusammenarbeit GmbH
ha	hectare(s)
NFF	national forest fund
NFP	national forest programme
NGO	non-governmental organization
PES	payments for environmental services
PFES	Payments for Forest Environmental Services (Viet Nam)
REDD+	reducing emissions from deforestation, forest degradation, conservation, sustainable management of forests and enhancement of carbon stocks
SFM	sustainable forest management
SMEs	small and medium-sized enterprises
US$	United States dollar(s)
VNFF	Viet Nam Forest Protection and Development Fund

Executive summary

What are national forest funds?

- National forest funds (NFFs) are dedicated financing mechanisms managed by public institutions designed to support the conservation and sustainable use of forest resources. They may be funded by earmarked taxes and other domestic forestry income and through bilateral or multilateral development assistance mechanisms, including donations.
- Depending on the source of financing, NFFs usually exist for more than a single government budget cycle.
- NFFs have many potential functions. They may support the implementation of specific forest-related goals and activities of government agencies, assist the capacity-development efforts of non-governmental actors, help implement schemes for the payment of environmental services, or co-finance private investments in forests.
- As of 2014, 70 NFFs were operating globally and nine more were in the process of being established. The growing importance of NFFs is due partly to their potential to harness multiple sources of financing, and partly because they offer specialized management – such as flexibility, openness to innovation and focus on results – to support targeted forest investments.
- Nevertheless, many NFFs have struggled to achieve financial sustainability, and some exist only on paper. In addition to funding challenges, some NFFs do not have clear, well-defined goals, and links between NFFs and national forest policies and programmes are often weak.
- The financing of SFM is becoming more complex with the emergence of various national and international financing mechanisms, such as those related to climate-change adaptation and mitigation. The magnitude of funding is increasing, along with the complexity of accessing such resources.
- Despite a growing need for institutional mechanisms to improve forest financing and its governance, there is limited information at the global level on how NFFs work and how to improve their design and operation.

NFF design

- NFFs have four basic design elements: 1) fund governance structure and management; 2) fund capitalization; 3) fund utilization; and 4) fund oversight.
- **The governance** of an NFF can be improved through, among other things:
  - greater congruence between an NFF's mandate and the overall or specific goals of forest policies and programmes within which the NFF operates;
  - close coordination at the highest levels of government to ensure complementarity and cohesiveness among national forest initiatives;

- well-defined goals and objectives and a clear set of target parameters;
- an appropriate legal form that is aligned with the objectives of the NFF and the political and institutional environment in which it operates; and
- a robust, competent and flexible organization, with adequate financial management capability.

- NFFs that operate under the administrative orders of single ministries are generally weaker than those working under higher-level institutional set-ups; for example, they may be less effective in negotiating with donors and other key stakeholders.
- NFFs are most effective when they have operational flexibility and both financial and technical expertise.
- Fund **capitalization** depends on an NFF's ability to mobilize, harmonize and consolidate financial resources from all sources. It can be increased by:
  - ensuring that domestic policy and institutional frameworks meet the governance requirements of international funding mechanisms;
  - making an attractive business case for investment by the private sector; and
  - diversifying sources of income and devising innovative schemes such as payments for forest environmental services.
- NFFs that depend on forest-sector-related taxes and fees tend to experience slower growth in capitalization than funds that receive non-forest revenues. They may therefore face greater challenges in achieving financial sustainability.
- Strong government support and funding can help legitimize a fund and generate trust among stakeholders.
- Increased coordination among public, private and not-for-profit organizations in forest investment can achieve synergies by capitalizing on the comparative advantages of the various sectors. The public sector can especially assist by improving the enabling environment for investments by others.
- Fund **utilization** will be more effective when:
  - there is public awareness of the NFF and its role;
  - administrative procedures are easy to understand;
  - funding is sufficient; and
  - appropriate technical support is available.
- Better matching of investor needs with incentives and applying a mix of incentive mechanisms to support forest investments can result in stronger and more sustainable outcomes.
- Greater receptiveness and responsiveness to local community needs and aspirations can improve an NFF's visibility and sustainability.
- Funds with specific target areas and beneficiaries are most likely to have a significant impact.
- Effective **oversight** is a key means for improving the performance of NFFs. It can be achieved by:
  - ensuring broad representation in fund management and decision-making;
  - maintaining effective accounting and monitoring and evaluation systems;
  - strengthening mechanisms for independent review and oversight;

  - improving public access to information on NFFs; and
  - building the capacity of staff in managing funds and good governance practices.
- A well-functioning NFF requires an environment that is supportive in three key aspects:
  1. *Strong policy and political support at the highest levels of government:* many existing NFFs benefited from championing by political leaders, who negotiated and promoted policies in support of the forest sector.
  2. *Well-defined tenure systems and property rights:* policies to promote forest-tenure security provide key incentives for forestholders and forest managers to engage actively with NFFs.
  3. *A positive investment climate that encourages innovation and private-sector investment:* such an environment would include openness to free-market principles, transparency and accountability in business transactions, and simple and quick dispute-resolution mechanisms.

The way forward

NFFs are playing an increasingly important role in channelling forest finance, and there is a strong need to improve their performance. Possible ways forward include the following:

- **Increase awareness of NFFs within and outside government.** More awareness of the role of NFFs could leverage additional interest from the private sector and also increase transparency.
- **Link national forest priorities to international processes.** A key measure is to put in place financial governance and fiduciary standards that meet the requirements of new international financing mechanisms, such as those related to climate change, while maintaining a focus on national priorities.
- **Improve governance.** NFF governing bodies need wide representation to increase legitimacy, strengthen support, promote innovation and synergies and help ensure management transparency. The design of NFFs should set high standards of financial governance and define criteria and indicators for accountability.
- **Seek innovative funding opportunities.** Diversifying the sources of funding, such as payment schemes for environmental services, can increase the stability and sustainability of funds for NFFs.
- **Increase private-sector investment.** The key to motivating the private sector to support NFFs is creating an attractive business case for them to do so.
- **Decentralize.** Decentralizing NFFs can increase their accessibility to local communities, non-governmental organizations and other stakeholders directly involved in the implementation of forest activities and also increase the responsiveness of NFFs to local needs.
- **Create a global NFF platform.** Such a platform tailored to suit regional contexts could greatly expand the sharing of information and knowledge on real-world NFF experiences.

Towards effective national forest funds

National forest funds can help implement payment schemes for the provision of environmental services, among other things.

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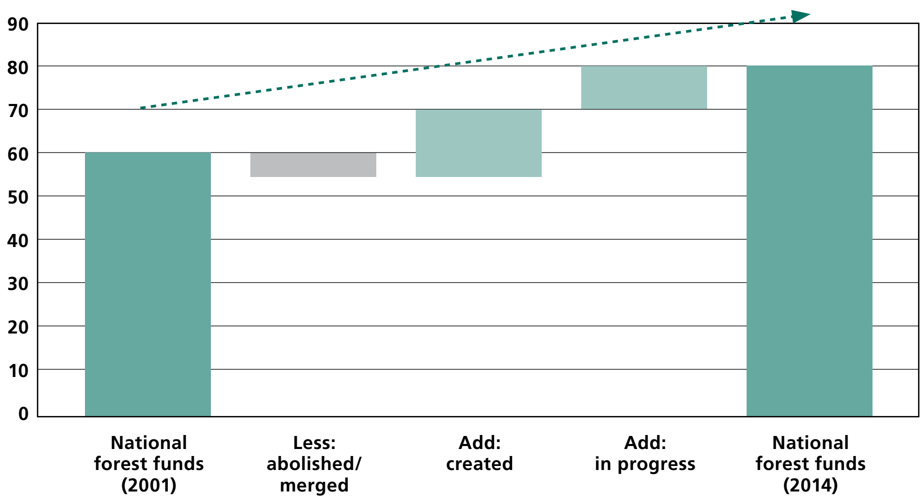
1. Introduction

WHAT ARE NATIONAL FOREST FUNDS?

National forest funds (NFFs) are dedicated financing mechanisms established with the main objective of supporting the conservation and sustainable use of forest resources. They typically rely on national revenues and are tasked with channelling such revenues to specific forest investments. NFFs may be funded by earmarked taxes and other domestic forestry income and through bilateral or multilateral development assistance mechanisms, including donations. They are managed by public institutions, which retain and disburse funds for this purpose. Unlike traditional government budgetary funding, NFFs exist for more than a single government budget cycle and offer a certain amount of flexibility in spending. Worldwide, NFFs vary greatly in their structure and governance, the sources of their funding, and the range of actors and activities they support. Thus, the term "national forest fund" does not refer to a specific model but instead describes a constellation of approaches (Rosenbaum and Lindsay, 2001).[1]

FIGURE 1
Growth in the number of national forest funds, 2001–2014



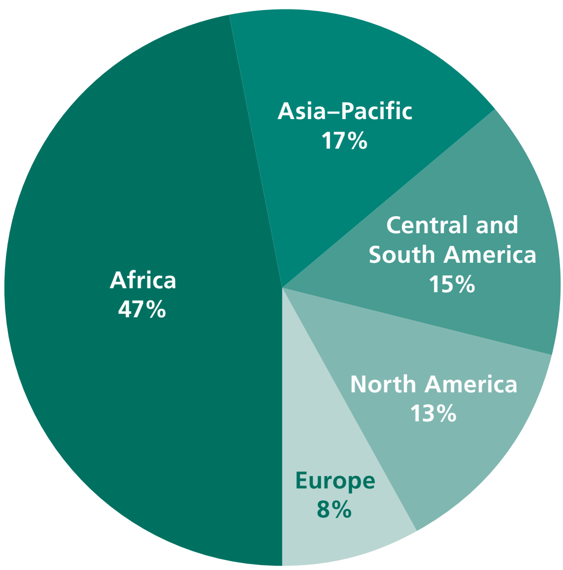
[1] This report does not address privately managed "for profit" investment funds or funds managed by international or multilateral organizations (e.g. the Global Environment Fund, the Green Climate Fund and the BioCarbon Fund).

RENEWED INTEREST IN NATIONAL FOREST FUNDS

NFFs are not a new concept; in several parts of the world they can be traced to the 1930s. In the United States of America, for example, the Knutson-Vandenberg Fund dates to 1930, while Spain's Patrimonio forestal del Estado was established in 1939 (Fontaine, 1961). By the late 1970s, provisions for forest funds were incorporated in the laws of at least ten Latin American countries, and there was also a steady increase in the establishment of NFFs in countries throughout Africa, Asia, the Pacific, Eastern Europe and the former Soviet Union (Rosenbaum and Lindsay, 2001).

In the past, NFFs were established primarily because of frustrations with traditional budgetary and financial management mechanisms. In the last three decades, the evolution in many countries towards forest sectors that are decentralized, participatory and multi-objective has increased interest in NFFs. As of 2014, 70 NFFs were in operation globally (Annex 1), and nine more were either not yet operational or were in the process of being established. In addition to traditional forest-sector activities, many NFFs are endeavouring to incorporate objectives related to climate change, biodiversity conservation and REDD+.[2] Figure 1 shows that the number of NFFs increased by 34 percent between 2001 and 2014; Figure 2 shows the regional distribution of NFFs in 2014.

FIGURE 2
Regional distribution of national forest funds, 2014



Source: Compiled from Rosenbaum and Lindsay, 2001, Gondo and Mandota, 2013, and web searches

[2] REDD+ = reducing emissions from deforestation, forest degradation, conservation, sustainable management of forests and enhancement of carbon stocks.

NFFs have gained the attention of countries for their potential to improve financial performance by increasing access to additional capital and by providing specialized management to support targeted forest-sector investments. NFFs are expected to:

- **Help stimulate effective forest management**. NFFs can release funds on time (which is important because of the seasonal nature of many forestry operations), and funds will not be forfeited if they are unspent at the end of a budget cycle, thereby encouraging more efficient spending.
- **Help meet long-term investment needs**. Sustainable forest management (SFM) requires long planning horizons. NFFs can shield the forest sector from the fluctuations and unpredictability of national budgets.
- **Help leverage additional sources of funding**. Dedicated funding mechanisms can serve as tools for financial and governance reforms in the forest sector, and they can receive performance-based contributions from non-governmental and international sources. Carefully designed funds can also help harmonize investment streams from multiple donors, for example in the framework of national REDD+ schemes.
- **Enable the implementation of PES schemes**. In countries where schemes for forest-based payments for environmental services (PES) are in operation, NFFs have become tools for pooling money from various forest users and distributing it to the providers of environmental services. NFF-based financing also enables payments for multiple benefits (e.g. carbon, water and biodiversity) in PES schemes, known as bundling.
- **Increase transparency and accountability**. A range of appropriate stakeholders outside government can be involved in the administration of NFFs, helping ensure that spending is transparent and that there is independent auditing.
- **Reduce political interference**. NFFs can protect politically sensitive programmes from budget cuts and changes and insulate donor projects and funding from political manipulation.

CONTINUING CHALLENGES

There are many expectations of NFFs, but their performance on the ground has been mixed, with some countries consolidating gains and others lagging behind (AFF, 2014). Examples of NFFs that have played important roles in promoting SFM and forest development include Costa Rica's National Forest Financing Fund (Fondo Nacional de Financiamiento Forestal – FONAFIFO), Viet Nam's Forest Protection and Development Fund (VNFF), which has assisted small and medium-sized forest landowners and community-based forestry, and the Bhutan Trust Fund for Environmental Conservation, which has contributed to biodiversity conservation. In Brazil, the National Forest Development Fund (FNDF) has supported long-term investments and made a significant contribution to SFM by, for example, enabling the creation of financial incentives, building multistakeholder participation and enhancing public awareness of forestry. In Africa, the United Republic of Tanzania's Forest Fund has helped maintain steady progress in forest-sector capitalization and use. In the Philippines, the Tropical Forest Conservation Fund has assisted in the re-introduction of native trees, and India's Compensatory Afforestation Fund (CAF) has generated funds to the tune of US$5 billion.

Nevertheless, many NFFs have struggled to achieve financial sustainability, and some exist only on paper, having failed to become operational. This is particularly true of NFFs in Africa and Asia that were established with a single source of funding (e.g. a share of revenue from timber leases). In addition to funding challenges, some NFFs do not have clear, well-defined goals, or their objectives have changed, making it difficult to measure their effectiveness. Links between NFFs and national forest programmes (NFPs) and national forest policies are often weak. NFFs often lack the ability and opportunity to integrate with sectors or stakeholders outside forestry. Many NFFs have proved unable to channel significant resources to community forestry or to small and medium-sized enterprises (SMEs); most NFFs in Africa administered by government, for example, restrict their support to governmental forest agencies. The ineffective and inefficient management of many NFFs is reflected in a low level of fund disbursal and complicated procedures for accessing funds.

NFFs often face serious deficiencies in accountability and transparency. For example, the Indonesian Government loaned NFF funds for the development of industrial plantations, but many of the plantations were never established and the loans were not repaid (CIFOR, 2013). Poor governance is a factor impinging on the performance of public fund-based mechanisms (Barr *et al.*, 2010). With only a few exceptions, NFFs are administered by understaffed forest departments with limited expertise in finance and budgeting, and suboptimal outcomes are the inevitable result.

EMERGING NEEDS

The financing of SFM, while gaining in importance, is complicated by the emergence of various national and international financing mechanisms, such as those related to climate-change adaptation and mitigation, PES, and protected areas. International funding mechanisms include the Global Environment Facility (GEF), REDD+, the Green Climate Fund, the Adaptation Fund[3], and a range of bilateral and multilateral sources. Despite commitments to harmonize and align various programmes, there has been both a proliferation and a fragmentation of financing modalities, with a strong focus on the climate-change-mitigation functions of forests. The magnitude of funding is increasing, along with the complexity of accessing such resources. A broad range of economic instruments is being applied in various combinations, spurring a number of voluntary and market-based actions at the national and international levels. The changing financial landscape in forestry requires improved financial governance and fiduciary standards at all levels as well as adequate and efficient means for channelling and distributing the resultant benefits. Social and environmental safeguards built into mechanisms involving large public payments underline the need for good financial governance at the national and subnational levels.

[3] The Adaptation Fund is an international fund that finances projects and programmes aimed at helping developing countries adapt to the harmful effects of climate change. It functions under the aegis of the United Nations Framework Convention on Climate Change.

Despite a growing need for institutional mechanisms to improve forest financing and its governance, there is limited information at the global level on how NFFs work and how to improve their design and operation. NFFs hold or manage an estimated US$12–13 billion in developing countries[4], which is about five times the funding ($2.1 billion) that the GEF has provided for SFM in developing countries since 1992 (GEF, 2014). The amount held by NFFs is also much higher than the amount (US$672 million in 2013) managed globally by conservation trust funds (CBD, 2014). NFFs, therefore, represent a huge untapped and unrecognized resource for advancing SFM, but literature on them is limited.

PURPOSE OF THIS PUBLICATION

The purpose of this publication is to assist forest practitioners and policymakers with approaches for the effective establishment and management of NFFs. The publication has been prepared in response to growing interest in NFFs, and its aim is to serve as a tool for addressing the challenges and emerging needs of NFFs. The publication draws on work on NFFs by FAO and its partners since 2000. Sources of information include workshops, expert consultations, literature and country reports pertaining to NFFs. In particular, the report received considerable input from three workshops[5] organized jointly by FAO and Deutsche Gesellschaft für internationale Zusammenarbeit GmbH (GIZ) in 2013 and 2014 in collaboration with Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), the Center for International Forest Research (CIFOR) and the African Forest Forum (AFF), which brought together experts with hands-on experience in managing NFFs in different regions. The workshops examined the experiences of about 20 funds. This publication further develops an FAO working paper titled *National Forest Funds (NFFs): Towards a Solid Architecture and Good Financial Governance*.

Chapter 2 describes the general architecture of NFFs and their main design elements. Chapter 3 elaborates on these dimensions and outlines the key elements that need strong consideration in efforts to improve the performance of NFFs, drawing on lessons learned from existing NFFs. Chapter 4 identifies steps for improving the effectiveness and contributions of NFFs as a way forward. The publication concludes by highlighting the need to pay greater attention to financial governance in coming decades if SFM is to become widespread globally.

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4 See Annex 2.

5 Expert Meeting on Strengthening Finance for SFM through National Forest Funds for Latin America and the Caribbean, held in Turrialba, Costa Rica, 28 –30 January 2013; Expert Meeting on Strengthening Financing for SFM through National Forest Funds for the Asia-Pacific, held in Bogor, Indonesia, 24–25 October 2013; and Expert Meeting on Strengthening Financing for SFM through National Forest Funds for Africa, held in Mombasa, Kenya, 19–21 February 2014. Proceedings of these workshops are available at: www.fao.org/forestry/finance/en.

Effective national forest funds have adequate provisions for the involvement of all stakeholders.

2. General architecture of national forest funds

NFFs are dedicated financing mechanisms for supporting SFM, often also encompassing climate-change mitigation, biodiversity conservation and the restoration of degraded lands. National governments have a strong role in their establishment and management, motivated in some cases by the expected public good and in other cases by the economic potential of forest investment. This chapter describes the general architecture of NFFs with the aim of familiarizing readers with relevant concepts and terminology. Chapter 3 provides additional detail and specific examples aimed at identifying ways to improve the functioning of NFFs.

BASIC DESIGN ELEMENTS OF A NATIONAL FOREST FUND

Four key elements define the design of NFFs (Rosenbaum and Lindsay, 2001; FAO, GIZ and BMZ, 2013):

1. governance;
2. income sources, or "capitalization";
3. utilization; and
4. oversight.

Governance

An NFF may be nothing more than a separate account in a government ministry or agency. It can also be a complex legal entity subject to special rules that make it independent of the usual channels of government decision-making. Between these two extremes are many variations in the ways in which NFF governing bodies are structured. In the case of an NFF that is simply a separate account in the budget of a ministry or agency, the account receives specific income streams, and laws define the ways in which the government may spend the money in the account. Indonesia's Reforestation Fund, which is administered jointly by the ministries of forestry and finance, is an example of such an account. A special agency may exist within a ministry to administer the fund. A law may also create a board of directors or stakeholders (with specific responsibilities) to advise the agency that administers the fund. In some cases, NFFs have independent or quasi-independent legal personalities.

Some NFFs operate as government-owned corporations, in which the government appoints the managers of the fund and supplies it with a stream of income but the fund otherwise operates independently. Such corporations may be structured like charities (e.g. trusts or foundations), providing them with a certain amount of flexibility and independence from bureaucratic requirements. An NFF may also be organized as an independent corporation, with the law specifying how it operates, how the managers of the corporate body are chosen, and what roles they will have in its management. NFFs may be structured in such a way that they shift the control of money from a central federal bureaucracy to provincial or local governments or to community-based organizations. In such cases, NFFs may reserve portions of their income for use by the local or regional offices of national forest bureaucracies. A common feature of laws designed to encourage community-based forest management (e.g. in the Gambia) is an NFF and several local funds operating in tandem.

Capitalization

In many countries NFFs are considered to be extra-budgetary funds, which the International Monetary Fund defines as "general government transactions, often with separate banking and institutional arrangements that are not included in the annual state (federal) budget law and the budgets of sub-national levels of government" (Allen and Radev, 2010). Most NFFs can also be termed "revolving funds", meaning funds that are replenished, usually through charges on related goods and services and on lending operations and whose income remains available to finance its continued operation, which would otherwise be jeopardized by budget rules that require budgetary appropriations to expire at the end of the (financial) year. Some funds, such as those established under debt-for-nature swap arrangements, are "sinking funds", which operate with an initial endowment for a specific period and cease to exist when the money is spent.

Currently, funding for NFFs originates from either budgetary or extra-budgetary sources. Government income for NFFs may comprise direct revenues from domestic production and the trade of forest products and services (e.g. royalties, concession fees, entry fees, carbon credit sales, fines and penalties); general fees and taxes not tied to forest commodities; donations; grants; bonds; and loans. Table 1 sets out the most important sources of NFF capitalization.

TABLE 1
National forest fund capitalization sources

	National	International
Public	• General government revenues • Forest-sector revenues, including forest-related taxes • Revenues from state-owned forests • Fines, penalties and seizures • Fees and taxes not tied to forest commodities	• Bilateral aid • Multilateral grants/financing • International financing mechanisms (e.g. REDD+)
Private	• Forest industry • Corporate contributions (e.g. corporate social responsibility schemes) • Philanthropic funds/donations • Non-governmental organizations	• Philanthropic funds/donations • Non-governmental organizations • Bonds and loans

Utilization

NFFs vary significantly in how their funds are used; they may involve a narrow or broad range of activities. Highly specialized NFFs may provide funds to specific groups or projects, while more generalized NFFs may offer access to their funds to a broader group of actors and uses. Uses and beneficiaries supported by NFF funds may include the following:

- **Forest-related government activities**. NFFs may support the activities of forest agencies, while decrees, regulations or the decisions of appropriate ministers or management bodies determine the use of funds.
- **Support private forest owners and forest industry**. NFFs may specifically exclude government agencies and support private forest owners and forest industry in afforestation and reforestation activities and the development of forest enterprises, including through the promotion of markets for forest products and services.
- **Long-term forest investment**. NFFs may reserve a portion of their incomes (e.g. from government concessions) for reforestation or other management activities that do not generate immediate income.
- **Capacity development**. NFFs may support forest research and awareness programmes, including forest outreach services, to benefit a variety of stakeholders.
- **Supporting the work of non-governmental organizations (NGOs) and community-based organizations**. A portion of NFF funds may be earmarked to support projects implemented by NGOs or community-based organizations.

Depending on how the money is used, NFFs may be characterized as transfer or catalytic funds. A transfer fund acts essentially as a distribution platform, channelling its money to funding streams from its (mainly public) sources to beneficiaries. In such cases, grants are provided with no financial returns for the fund. Conservation trust funds established under debt-for-nature swaps are examples of transfer funds, which generally involve grants and do not generate financial returns for the fund. Catalytic funds, on the other hand, provide finance (or seed money) for potential economic activities over a certain period, for example until the supported activities are self-financing or competitive in the target market. Such funds provide a combination of grants and loans aimed at leveraging private-sector equity or commercial loans. Many current NFFs, particularly those managed by government agencies, serve as transfer funds.

Oversight

Most NFFs have provisions for oversight, including periodic reporting and verification. Many NFFs are subject to general government or corporate requirements for transparency, record-keeping, reporting and auditing, but very few have systematic monitoring and evaluation mechanisms. Some NFFs have independent advisory boards that review plans and spending and, in that way, promote transparency and integrity. In some cases it is mandatory for the responsible minister to consult with a national forestry board before approving NFF spending. Preparing and submitting annual accounts of actions is also a feature of many NFFs. Some national laws require annual audits of NFFs (by the auditor-general), as they do for other budgetary expenditure as part of national government auditing procedures.

There is no "typical" NFF, but identifying the success factors for existing NFFs can offer valuable lessons.

3. Key elements for optimizing the performance of national forest funds

Based on an analysis of a range of NFF case studies, this chapter elaborates on the key elements to consider in optimizing the performance of NFFs. The analysis showed that there is no "typical" NFF; the structure, scope of activities, priorities and procedures of NFFs vary according to their objectives, the changing opportunities and challenges they face, and the sociopolitical situations of the countries they serve. More importantly, NFFs operate in highly dynamic environments and are themselves subject to constant change and transformation. It may not be possible, therefore, to prescribe "one solution that fits all", but identifying the success factors for existing NFFs can offer valuable lessons.

The analysis of case studies also showed that many NFFs cannot be viewed simply as financial mechanisms; rather, they are institutions that play several roles in addition to receiving and channelling money. For example, NFFs may function as important actors in the implementation of national forest policies or programmes; as technical experts who can assist public and private actors in developing innovative financing strategies; and, in some countries, as the main vehicles for capturing and channelling international forest/climate-change funding. To succeed and create long-lasting impacts on the ground, NFFs need good governance, effective management, skilled staff, and a supportive enabling environment. Here, the analytical framework presented in Chapter 2 (i.e. governance; capitalization; utilization; and oversight) is further developed in light of the analysis of existing NFFs. Together, these elements broadly cover the strategic governance tasks of setting the goals, direction and accountability frameworks of an NFF, as well as aspects of management related to the efficient mobilization and use of NFF resources.

GOVERNANCE

The governance of an NFF – including its mandate and legal and organizational dimensions – is determined largely by the broader forest policy environment in which the institution operates.

Congruence between national forest funds and broader national policies and programmes

Since the 1990s, the NFF concept has evolved in a way that is consistent with broader policy developments both within and outside the forest sector. NFFs are now often seen as key operational mechanisms for improving financing for SFM and for putting specific forest policy goals or other broader national programmes (e.g. on biodiversity conservation and climate change) into practice. In an increasing number of cases, NFFs are also being developed or modified as part of the restructuring of public forestry institutions and the "spinning off" of some management functions to autonomous or quasi-autonomous bodies that are expected to be at least partially self-financing (Landell-Mills and Ford, 1999). Existing NFFs, particularly in Latin America, reflect efforts to develop institutional mechanisms at the national level with the capacity to absorb, manage, use and build on new areas of investment. In Chile, for example, the motive for establishing an NFF was to provide a strong institutional mechanism to consolidate and guarantee the continuity of multiple forest incentive schemes. In Peru, the need to ensure financial and institutional sustainability led to the exploration of options for an NFF (Box 1).

BOX 1

Links between forest policy and national forest funds in Chile and Peru

Since 1973, Chile has taken steps to complement forest subsidies with measures such as: bridging credits; forest insurance; plantation management programmes; and shared-cost agreements with private enterprises and forest operators. The process began with devising long-term incentive policies and building the institutional framework, and it culminated in changes in the law that enabled the creation of a fund for natural forests and the recognition of the value of forest environmental services.

Peru's forest financing experience started with the pooling of funds from government and bilateral and multilateral organizations. Funds were used to support a broad range of activities and stakeholders over a wide geographic area (54 million hectares), including natural protected areas; indigenous and smallholder communities with land titles; concessions for wood and non-wood forest products; permanent production forests; reserved territories for indigenous peoples in isolation; and Amazonian wetlands (Abanico de Pastaza). Because most of the funding was not permanent, there is now a proposal for a "fees law" that would establish a fund to give financial sustainability to the system by collecting a percentage of the income received by local governments from forest exploitation.

Source: CATIE, 2013

In the United Republic of Tanzania and Viet Nam, NFFs were established pursuant to goals specified in their national forest policies on providing the forest sector with greater independence from government budgets. Following successful recent experiences in some countries, many countries have endeavoured to mould their NFFs as vehicles for implementing PES schemes; NFFs are obvious choices where such schemes harness multiple sources of funding. Unlike traditional funds – such as Indonesia's Reforestation Fund, which focused on forest plantations – recent NFFs, such as Brazil's FNDF, endeavour to play catalytic roles. Established as a key mechanism for implementing Brazil's Forest Code, the FNDF is designed to promote forest development with a focus on forest-based enterprises.

Another major development for NFFs – and a major deviation from traditional NFF models – is the growing significance of mobilizing money from sources outside the forest sector.[6] Significant policy developments have enabled some NFFs to receive revenues from non-forest sectors such as agriculture, energy and the environment. Income sources may include general taxes, special taxes (e.g. a fuel tax, as in the case of Costa Rica's FONAFIFO) and compensation payments (e.g. India's CAF), in addition to PES contributions paid by forest users such as hydroelectric and ecotourism companies (e.g. in Viet Nam) and climate-change-related funds (e.g. REDD+) and other international financing sources. The trend towards decentralized forest governance has meant that NFFs have shifted from being mechanisms for implementing the work of forest departments to serving a more diverse client base. The objectives of almost all NFFs in Latin America and a majority of them elsewhere now include supporting community and smallholder forestry.

Long-term forest policies or programmes are a prerequisite for the success and sustainability of NFFs, and well-structured NFFs with financial and management capabilities can serve as operational entities for implementing policy objectives. In that sense, what matters is the existence of institutions with such capabilities, rather than their designation as NFFs. For example, the National Forestry Fund Gambia is maintained as a separate account with the Accountant General in the Ministry of Finance; although it bears the title of an NFF it is, for all practical purposes, the same as a regular government budget allotment. The single instance in which the forest sector received funding from Nigeria's Ecological Fund arose because of the intervention of the President. Ad hoc interventions that lack long-term policy or programme support are unlikely to result in sustainable outcomes. Particularly in Africa, there appears to be a strong disconnection between forest policy reforms and NFF management, with the latter not in tune with broader developments. According to Gondo (2010), while most countries in Africa have developed or updated their NFPs, they have not followed them up with the necessary financing strategies to clearly articulate their financing needs. The net result has been a continued absence of links between NFPs and NFFs and a lack of financial resources for the implementation of NFPs.

There is potential for a mismatch between forest policies and NFFs, especially in countries that have multiple forest-related funds with similar or overlapping mandates. Indonesia has several funds and a reported lack of coordination among them (CIFOR, 2013). In Viet Nam, various forest funds are grouped under an overarching fund. Brazil, which has many specialized funds (Annex 3), has noted that strong relationships among

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[6] Debt-for-nature swaps (e.g. the Philippines' Tropical Forest Conservation Fund and the Jamaica Forest Fund) are examples of mechanisms with funding sources outside the forest sector.

these funds are vital for ensuring efficiency and minimizing the duplication of effort (CATIE, 2013). Malaysia has the Malaysian Timber Industry Development Fund and various additional funds that were created for specific purposes. While multiple funds with defined geographical or programmatic scope can be effective when there is a clear need and strong local support, as in the case of conservation trust funds (GEF, 1998), there appear to be significant advantages of scale in combining multiple purposes or "windows" within a single fund. This is becoming evident, for example, in the Solomon Islands and Vanuatu.

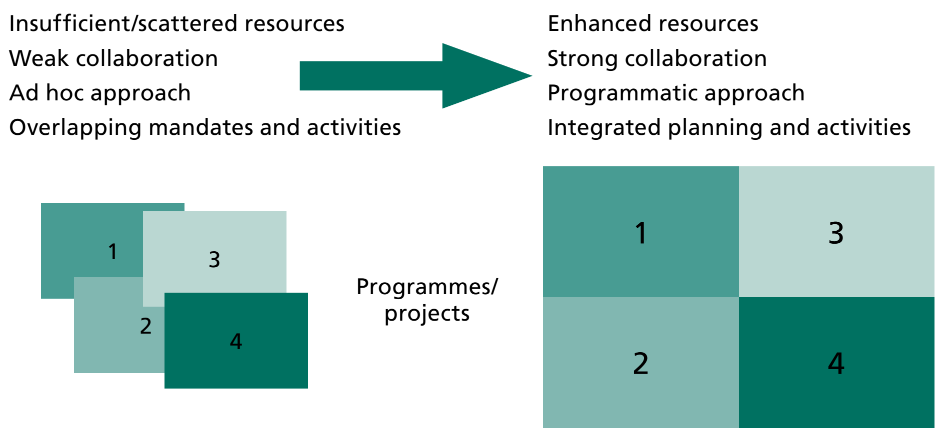
The issue of multiple funds may have become more pronounced with the development of climate-related funds. REDD+, for example, has relegated some existing NFFs to minor roles in Cameroon, Kenya and the United Republic of Tanzania. The existence of numerous focal points dealing with various international mechanisms has also led to the fragmentation or duplication of effort. This suggests a strong need for close coordination at the highest levels of government to ensure complementarity and cohesiveness among national initiatives. Such coordination is already happening in some countries. The National Climate and Environment Fund of Rwanda (FONERWA), for example, absorbed the existing forest fund there and created a funding window for forestry. The Green Fund – an environment fund in Trinidad and Tobago – is opening up funding opportunities for the national forest agency. In Costa Rica, on the other hand, FONAFIFO is pursuing several broad environment-related objectives in addition to forestry. In Jamaica, there are efforts to consolidate the Forest Conservation Fund and the Environmental Fund. There is a need, therefore, to evaluate and align NFFs and broader international or national policies and programmes to ensure they are complementary.

Programmatic approach to fund design

Closely related to the task of integrating policy objectives and sectoral mandates at the national level is the positioning of NFFs as coordinating mechanisms for avoiding the fragmentation of efforts and for strategically promoting investments in SFM from all possible sources (Figure 3). An inclusive NFF design requires adequate provisions for the involvement of stakeholders from other sectors – particularly finance, tourism, energy and infrastructure – in NFF design and implementation, as well as cooperation among federal, state and local governments.

Potential additional funds have been missed in the past because NFF management has been unable to demonstrate the potential of forestry for assisting in government priority areas such as poverty reduction and economic development (AFF, 2014). Cross-sectoral collaboration is critical for implementing schemes such as PES and REDD+ (CIFOR, 2013); for example, an integrated approach enabled FONAFIFO to mobilize investments from international agencies and the private sector. Other NFFs are also making efforts to integrate cross-sectorally, mobilizing significant funds from both domestic and international investors and donors. In Viet Nam, the VNFF is working closely with the Ministry of Industry and Trade to ensure that small and medium-sized hydroelectric plants pay for the environmental services provided by upstream forests. In Brazil, the FNDF succeeded in increasing the investment available for the caatinga biome from

FIGURE 3
Programmatic approach to financing sustainable forest management



Source: Adapted from GM, 2010

US$100 000 to US$2.5 million in one year by closely associating with two other funds. A systematic financial needs assessment (gap analysis) across relevant sectors and policies guided Rwanda's FONERWA in its planning and design process; this assessment was conducted to justify the investment areas (i.e. "windows" or "entry points") proposed for the fund and to develop a holistic, programmatic approach to its implementation.

Well-defined goals, objectives and target parameters

NFFs operate in multistakeholder environments and depend on funding streams that are subject to multiple challenges and agendas. Many NFFs, particularly those administered directly by government ministries, operate on an ad hoc basis with short time horizons and without well-defined work programmes. For example, a lack of clear operational criteria was a major criticism of Indonesia's Reforestation Fund.[7] In the absence of well-defined goals, objectives, and work programmes, NFFs will find it difficult to secure money, particularly when the fund money must come from other agencies or donors. Having well-defined goals and objectives and a clear set of target parameters helps NFFs follow a steady path and can help in avoiding the misuse of funds. Indonesia's approach to the creation of a wildlife conservation fund (Box 2) is an example of the systematic planning required to establish an effective fund.

In addition to providing clarity on the activities to be implemented by an NFF, a work plan can also help in defining the kind of institutional set-up required. Conservation

[7] According to one participant at the NFF regional workshop held in Bogor, the main criterion for accessing the Reforestation Fund was "closeness to power" (CIFOR, 2013).

BOX 2

Indonesia's wildlife conservation fund planning

The Government of Indonesia designed a trust fund with the objective of conserving key wildlife species. Although ultimately the fund was not established, its design remains of interest because it was based on well-defined criteria and objectives. For example, it was designed to:

- **Clearly define desired outcomes.** The fund would measure the number of rhinoceroses, tigers and elephants in clearly defined areas (three national parks) in the period 2013–2018.
- **Focus on a limited number of achievable objectives.** The fund would aim to maintain three clearly identifiable species (rhinoceros, tiger and elephant) in prescribed locations.
- **Avoid fluctuations in annual budgets.** The fund would be financed from the proceeds of a debt-for-nature swap, with predictable (and gradually increasing) annual allocations.
- **Work with stakeholders on the ground.** At least 35 percent of the resources of the fund would be allocated to non-governmental organizations, communities and research institutes working in the focal areas.
- **Avoid the fragmentation of effort.** Funds would be channelled through a single trust fund governed by representatives of the Government of Indonesia, the financier (the Government of Germany), and civil society.

Source: AFF, 2014

trust funds in Bhutan, Colombia and the Philippines, and Costa Rica's FONAFIFO, all have well-laid-out work plans.

Target parameters are generally based on a set of principles, criteria and indicators for planning, costing, implementing, monitoring and measuring progress. Such an approach helps in ensuring that financial, human and technical resources contribute to a logical chain of results and impacts as they relate to national priorities. It also enables the transparent and objective evaluation of the performance of an NFF and provides options for adaptive management over time. The work of FAO and others[8] on principles, criteria and indicators for SFM provides an entry point to the principles that NFFs should consider in developing programmatic approaches.

Legal dimensions

NFFs exist as separate accounts held by governmental entities or as trust funds, foundations, associations or other entities permissible under national laws. The wide array of structures and systems indicates that there is no single, ideal format for an NFF (Annex 4 describes four of the most common legal forms of NFFs). It is important,

[8] www.fao.org/forestry/ci/16609/en

however, that an NFF has a strong legal basis for its establishment and operation. Even if the proposal for its establishment originates in bilateral or multilateral international agreements, it still requires the additional step of national legislation to properly establish the legal entity in the jurisdiction. For example, Viet Nam's VNFF was launched through a memorandum of understanding signed by the Government of Viet Nam and the governments of Finland, the Netherlands, Sweden and Switzerland. Its formal establishment, however, required follow-up domestic legal instruments in the form of Prime Ministerial decisions, decrees and circulars (Litzenberg and Luong, 2013). More rare is the case of India's CAF, which also required a decision by the judiciary.

Establishing an NFF involves procedural and substantive requirements, both of which affect the entity's governance structure and authority. Procedural requirements include those related to registration procedures and the steps that must be taken to establish the NFF as a separate entity such as a trust fund, a foundation or an association. Commonly, foundations require registration with a judicial or state entity (EFC, 2007). Trusts usually require registration at a relevant government office using a deed of trust, charter or articles of incorporation (IPG, 1999). Additional approval by an appropriate government entity may be required to enable the entity to operate in a foreign currency. In some jurisdictions, multiple registrations may be required. For example, Uganda's Mgahinga-Bwindi Impenetrable Forest Conservation Trust required registration as a trust with the Ministry of the Interior, as well as registration as a not-for-profit corporation with the Ministry of Justice. The information required for filing and registration often relates to the substantive requirements for establishing the entity.

Substantive requirements include those related to the purpose, governance structure and capitalization of the entity. If the NFF is to be created as an existing type of entity, such as a foundation, it may need to meet certain substantive requirements regarding its purpose.[9] An NFF is inherently for public benefit, so it should have no trouble satisfying a requirement for general public benefit. Trust funds are managed by trustees and generally do not have specific requirements for the structure of governance (Spergel and Taieb, 2008), although some entities, such as associations, may require a minimum number of members (EFC, 2013).

NFF legal status and power. "Power" relates to the decision-making capacity of an NFF or its host organization. It also chiefly determines an NFF's relationship with other key actors – such as donors, partner organizations and civil society – and their ability to influence them. In designing or reforming an NFF, therefore, it is important to consider the implications for power relations when deciding on the legal form of the entity and its associated governance structure. NFFs that operate on the basis of administrative orders or other instruments issued by executing ministries or agencies

[9] In Austria, for example, public-benefit and private foundations are governed under different laws. Public-benefit foundations may only serve public-benefit purposes, whereas private foundations have the freedom to pursue either private or public-benefit purposes. In countries such as Poland, Portugal and Spain, foundations may only serve public benefit. Other organization types, such as tax-exempt not-for-profit organizations in the United States of America, may have their own laws and even more specific requirements for their purposes (see 26 U.S.C. § 501(c)(3)).

(i.e. the "account" entity type) are weak compared with those established under higher-level statutes such as acts of parliament or presidential decrees. In an account-based entity, the host organization may be unable to enforce the obligations of other agencies in situations where remittances are expected to come from outside the forest sector; this was the case of the Gambia's NFF and Uganda's Tree Fund. On the other hand, India's CAF has strong backing from the country's Supreme Court and has been able to strictly enforce its funding policy.

An NFF structured as a separate account under the direct governance of a ministry or government agency does not have a separate legal identity and therefore is unable to enter into contracts directly with other parties as an independent legal entity. Such NFFs would depend on their parent ministries or agencies to enter into contractual arrangements on their behalf, and this may affect their operation and could potentially influence relations and power dynamics between them and donor countries.

Legal status and fund capitalization. The legal status of an NFF could affect its capitalization by acting as a barrier to funds from sources other than the national treasury (Kant and Appanah, 2013). Concerns over accountability could also have implications for an NFF's ability to attract funds from private investors.

NFF legal personality and fund utilization. The legal structure may have important implications for fund utilization. For example, legal structure is a critical determinant of the capacity to involve stakeholders in projects funded by an NFF and to share resultant benefits. Ambiguities in enabling legal provisions, such as the right of an entity funded by an NFF to manage forests, or its capacity to receive funding (including signing agreements), could create challenges. In Viet Nam, despite a decree allowing households, communities and companies to receive funding through the country's Payments for Forest Environmental Services (PFES) scheme, which in turn is linked to the VNFF, ambiguities created in other legal instruments raise questions about the eligibility of households, communities and companies to receive this funding (CIFOR, 2013). Under the 2004 Forest Law, communities are considered legal subjects with the right to manage and protect their forests, but they do not enjoy the status of legal entities under the 2005 Civil Code (Litzenberg and Luong, 2013). NFFs also need strong legal requirements (quality assurance) to prevent the fraudulent use of funds by user organizations. These rules are normally executed in the form of "agreements" that follow a standard template, as provided in local civil laws. Although such provisions exist in some NFFs, their enforcement has been weak.

Legal aspects related to receiving international funding. Many international funding mechanisms, such as the Adaptation Fund, have created their own sets of fiduciary standards, some of which may be similar to requirements imposed by domestic laws and some of which may be additional. To obtain funding directly from entities such as the Adaptation Fund, NFFs need to demonstrate their ability to comply with the fiduciary standards required by those entities. Moreover, several international funding mechanisms bypass intermediary agencies, instead using national entities as implementing entities; in such cases, meeting the standards set by the international funding mechanism is essential for the certification of NFFs as national implementing entities. For example, Benin's

National Environmental Fund is recognized legally as Benin's national implementing entity for the Adaptation Fund.[10] Therefore, if the goal is for an NFF to gain status as a national implementing entity for a given international funding mechanism, an essential step would be to ensure that the NFF is capable of meeting the standards required by that mechanism. NFFs may also be required to meet specific standards in order to receive funding from multilateral and bilateral sources.

It is important that such factors are considered when deciding on the legal form of an NFF, along with its overall objectives and the broader political and institutional environment in which it will operate. The assessment of NFFs made for this publication indicated a need for current NFFs, which are mostly account-based entities, to progress toward forms such as trusts and foundations to allow them greater autonomy in their functioning. Such a transition would increase their flexibility and ensure that they are innovative, transparent and accountable and capable of achieving financial and organizational sustainability.

Fund administration

Managerial structure and organizational capacity are critical determinants of an NFF's success. They have the following dimensions:

- strategic leadership, planning and management;
- operational structure (e.g. rigid rules and regulations can prevent innovation);
- process management (e.g. problem-solving, decision-making and communication); and
- programme management (e.g. designing, implementing and monitoring programmes and projects).

The apex management body of an NFF has a major influence on all these dimensions. The analysis of NFF case studies shows that successful NFFs are managed by robust, competent and flexible organizations. These organizational attributes are essential not only for ensuring the efficient management and integration of capital flows but also for encouraging innovation and accessing new funding sources and markets. They also play a pivotal role in reducing transaction costs and ensuring effective monitoring and evaluation. A deficiency in these attributes is one of the reasons why many NFFs struggle to mobilize and spend financial resources in a timely and efficient manner. Weak organizational capacity is a deterrent to safe, secure and responsible investments, and NFFs with this quality are unlikely to attract donors and other interested funders. As noted by Barr *et al.* (2010), weak financial management and the inefficient administration of revenues were the main factors undermining the effective use of Indonesia's Reforestation Fund.

A typical NFF consists of a top-level governing body (or board) and an operational arm ("executive secretariat"), which undertakes the day-to-day activities of the NFF and supports the work of the governing body. The governing body provides overall leadership and is entrusted with critical decisions on the overall direction and operationalization

[10] See: "Adaptation Fund: accredited national implementing entities", www.adaptation-fund.org/national-implementing-entities, accessed 1 September 2014.

of the NFF. Some NFFs have smaller executive committees that meet frequently to take short-term and urgent decisions, while the full board meets only once or twice per year and focuses on strategic decisions. The structure and composition of the governing body are key determinants of the overall performance of an NFF. For example, the top-level governing body of Rwanda's FONERWA, the Fund Management Committee, is responsible for the following aspects (FONERWA, 2012):

- overall structure of the fund;
- investment priorities;
- capitalization sources for further development;
- financial structure and priority financial instruments;
- institutional arrangements; and
- governance modalities.

BOX 3

Governing body of the Forest Resource Development Fund, Lao People's Democratic Republic

The directors' board of the Forest Resource Development Fund is composed of the following:

- Deputy Minister of Agriculture and Forestry (MAF) – president;
- Director General of the Department of Forestry, MAF – vice-president and chairperson of the secretaries' board;
- Director General of the Department of Agricultural Extension and Cooperation, MAF – vice-president;
- Director General of the Department of Poverty, Ministry of Finance – member;
- Director General of the Department of Planning, MAF – member;
- Director General of the Department of Forest Inspection, MAF – member;
- Director General of the Department of Planning and Land Development, Prime Minister's Office – member;
- Director General of the Department of Forest Management – member; and
- Director General of the Department of Planning and Investment – member.

Source: CIFOR, 2013

Over 80 percent of NFFs involved in the analysis of case studies for this publication were set up as government institutions, with little management representation from outside the government (see example in Box 3). These management bodies were established more to allocate resources among stakeholders than to govern the NFFs as independent self-sustaining institutions and, as a consequence, they do not have the membership needed for this broader role. The formal representatives of ministries in governing bodies tend to perceive their roles in terms of allocating resources to the agencies or sectors to which they belong, rather than functioning as part of a coherent body to support the fund's mission (GEF, 1998).

In the few cases in which governing bodies allow the participation of NGOs or the private sector, their participation is often restricted to one or two "seats", with government representatives typically holding the majority. This is in contrast to conservation trust funds, most of which are governed by a spread of representation involving NGOs, the business sector, government and donors. Literature on the performance of conservation trust funds indicates that when members of governing boards are elected or nominated in their personal capacities they tend to develop a stronger sense of "ownership" of the fund as an institution and to work more effectively in implementing the fund's mission (GEF, 1998). In addition, performance-based governance in such trust funds requires considerable time and creativity from all parties, including board members and the executive secretariat.

Box 4 describes key aspects of the structure and composition of the governing board of a conservation trust fund that contribute to its functioning. Although these principles also hold true for NFFs, making such drastic changes to the governing bodies may be challenging in the short term. Also, in view of the "public good" orientation of NFFs, a majority representation of non-governmental actors on their governing boards may not be politically feasible, at least at the beginning. Nevertheless, this issue can also be partly addressed by providing the governing body with considerable autonomy, as in the case of Costa Rica's FONAFIFO. Table 2 provides a comparative analysis of the governance structures of two prominent NFFs, and Annex 4 gives additional examples of NFF management structures.

BOX 4

The influence of governing board structure and composition on the performance of a conservation trust fund

The most important condition (i.e. best practice) for good governance in a conservation trust fund (CTF) is for a majority of the members of the fund's governing board to come from outside government. Experience shows that, compared with government-controlled CTFs, those with greater independence from government are more transparent and effective in achieving biodiversity conservation goals, less influenced by short-term political considerations, and more successful in attracting contributions from international donors and the private sector. Other important factors ensuring the independent status of a CTF include the following:

- The chair of the board should not be a government official.
- The CTF's offices should not be physically located inside a government ministry.
- Non-governmental board members should not be chosen or appointed by government.

Continues

Box 4 continued

Non-governmental board members should be elected by other board members or chosen by widely recognized and independent groups and associations. However, it is highly advisable that there is at least one high-level government representative on the board to ensure that the CTF's activities are linked to national biodiversity conservation action plans and policies and to ensure government support for the CTF.

Board members should have diverse backgrounds, and they should be chosen on the basis of their personal competencies and on how they can contribute to achieving the goals of the CTF. The terms of office of board members should be staggered (rather than all ending at the same time) to provide greater institutional continuity, and responsibilities should be specified clearly in the CTF's bylaws or its operations manual.

Source: Extracted from GEF, 1998

The analysis of case studies shows the importance of strong financial management capabilities. The Bhutan Trust Fund for Environmental Conservation's organizational structure (Annex 5), for example, is conducive to ensuring well-balanced financial and technical capabilities. As exemplified by FONAFIFO and in Viet Nam, such capabilities are particularly important for mobilizing resources through PES schemes and other market-based mechanisms. FONAFIFO is not only able to engage other sectors, particularly the finance sector and other top levels of administration, it is also actively involved in carbon and biodiversity offset markets, both within and outside Costa Rica. FONAFIFO's success can be attributed to its staff's robust technical knowledge of financial processes and instruments, and to a strong inclination to continually innovate and adapt. Brazil's FNDF reported a 30 percent decrease in costs due to improved financial management. Strong financial management capacity will become increasingly important given the opportunities for financing arising through climate-change-related mechanisms such as REDD+ (Barr *et al.*, 2010), and it is also a key to changing the dynamics of low-performing NFFs. Annex 6 outlines some of the elements of financial capacity.

Expertise in financial management could be increased through the establishment of working committees to deal with specific issues, such as financial management, fundraising and technical oversight. NFF governing bodies are more effective if they delegate certain topics to such expert committees, which make recommendations to the main board (see Box 8 on the Amazon Fund). Such an approach may also help reduce the administrative costs of an NFF by reducing the need to directly employ experts.

In addition, the governance board has a major role in ensuring the necessary accountability and transparency in the administration of an NFF. In particular, given that fund utilization is weak in many NFFs, strong provisions for quality assurance in disbursement, including monitoring and evaluation, can only be ensured at the top levels of management.

The FONERWA design team in Rwanda conducted a comparative advantage analysis to assess the institutions best suited to facilitating fund management and ultimately recommended a mechanism that involved both the public sector and the private sector. According to this model, publically oriented funds are channelled through the Rwanda Environmental Management Authority using existing government procedures, while the Rwanda Development Bank channels private-sector disbursements using its existing procedures. The Fund Management Committee, FONERWA's highest decision-making body within the Government of Rwanda, has overall responsibility for directing and monitoring the fund's activities through the authority and the bank.

TABLE 2
Governance of Costa Rica's National Forest Financing Fund compared with Indonesia's Reforestation Fund

Costa Rica's National Forest Financing Fund (FONAFIFO)	Indonesia's Reforestation Fund
Trust fund hosted under the structures of the State Forestry Administration but administered independently by a governing board.	Revolving fund under the administrative control of the Ministry of Finance, regularly audited by a national audit board.
FONAFIFO is a fully decentralized body within the organizational structure of the State Forestry Administration. Law 7575 grants FONAFIFO relative autonomy, instrumental legal status, and the authority to engage in any type of licit non-speculative legal transaction, including the establishment of trust funds, to guarantee the effective administration of its patrimonial resources. FONAFIFO's governing board has five members (two from the private sector and three from the public sector), who are appointed for two-year terms. FONAFIFO is operated by its Executing Unit, which comprises an executive director and five operating departments: Environmental Services; Credit; Administrative; Legal; and Resource Management. FONAFIFO uses the modality of a trust fund to carry out its tasks and operations. Under this mechanism, FONAFIFO conveys the ownership of its assets and rights to the trustee.	Established in 1989, the Reforestation Fund is financed by a timber-volume-based levy paid by timber concessionaires. It was created with a mandate to support the reforestation and rehabilitation of degraded land and forests. As of 2009, the fund had aggregate (nominal) receipts of approximately US$5.8 billion, making it the single-largest source of government revenues from Indonesia's commercial forest sector. Throughout the post-Soeharto reform era, and especially during the Yudhoyono administrations (2004–2014), the Government of Indonesia took steps to improve the administration of the Reforestation Fund. The capacity of the Indonesian Supreme Audit Board has been strengthened with its designation as the sole external auditor for the Government of Indonesia. The Ministry of Forestry and the Ministry of Finance jointly established two new institutional structures to oversee the administration and use of the central government's share of revenues from the Reforestation Fund. These are the Forest Development Account and the Forest Development Funding Agency Public Service Unit, which is mandated to administer the Reforestation Fund as a "revolving fund".

Sources: Barr *et al.*, 2010 and FAO, GIZ and BMZ, 2013

Operating costs are another key determinant of NFF performance, and experience from conservation trust funds suggests that such costs should not exceed about 20 percent of the total value of the investment portfolio. Operating costs include administrative costs (e.g. project identification, selection and supervision) and the costs associated with governance and outreach (e.g. the cost of board operations, fundraising, constituency building and participation in policy dialogues). Operating costs tend to be proportionally higher in small funds, and the scale of operation is therefore an important factor in ensuring that operational costs do not constitute a major burden for an NFF. Programme support costs, such as those associated with providing grantees with technical assistance and building capacity within the NFF itself (e.g. staff training and technical support for the development of policies and procedures), also need careful consideration (GEF, 1998). It is important to anticipate the funds required to pay operational expenses and to ensure that such funds are available so that time is not wasted on a "permanent search for funding" and the management team can instead focus its attentions on strategic actions.

All the dimensions discussed above call for the careful evaluation of the evolving roles of NFFs vis-à-vis the laws and governance structure in which they are nested. Table 2 provides an illustrative example comparing the fund governance structures of two NFFs.

FUND CAPITALIZATION

The performance of an NFF is significantly affected by its ability to mobilize financial resources. There is wide variation in the ways in which NFFs have approached resource mobilization and the results they have achieved, providing valuable lessons. Some funds, such as the Vanuatu Biodiversity Conservation Trust Fund, have been unable to mobilize any resources, while others have succeeded in generating considerable capital (e.g. US$5 billion in the case of India's CAF). In Vanuatu's case, the minister responsible for forestry deposited an amount of US$100 into the fund when it was launched in 1998, but to date this is the only money deposited in the account. This illustrates the importance of scale – small, local-level funds may not be worth the costs they entail.

Domestic public sources

The domestic public sector continues to be the main source of funds for a majority of NFFs (Table 3), with the exception of those that were established with climate-change funds or under debt-for-nature swaps. In the past, NFFs were established primarily to serve as devices for receiving specified percentages or categories of forest revenues (e.g. fees, taxes and royalties) and earmarking those revenues for reinvestment in the forest sector. NFFs were mostly operated by government forest departments and used mainly for departmental activities. The main objective behind their establishment was to ensure that forest revenues were not totally absorbed by the treasury and a portion was ploughed back into forestry. The Malawi Forestry Department, for example, retained up to 80 percent of forest taxes and fees in its Forest Development Management Fund (Landell-Mills, 1999). This approach, which was common in the 1980s and 1990s, continues to be the model for some NFFs (e.g. those of Cameroon, the Gambia, Indonesia, the Lao People's Democratic Republic, Malaysia and the United Republic of Tanzania), although many of these are undergoing or envisioning changes.

Overall, the "traditional" NFFs that depend on forest-sector-related taxes, levies and fees generally achieve lower capital growth than funds that receive non-forest revenues. For example, the Gambia's NFF has operated with an annual allocation of around US$150 000 since its inception a decade ago, while funds such as FONAFIFO in Costa Rica have achieved considerable growth. In particular, capitalization has stagnated or declined in funds that depend on logging and timber revenues (e.g. the Forest Resource

Development Fund in the Lao People's Democratic Republic, the Malaysian Timber Industry Development Fund, and Indonesia's Reforestation Fund). An exception is in the United Republic of Tanzania, where the NFF has achieved moderate capital growth due to ongoing forestry operations. Another reason for the poor capital growth obtained by NFFs hosted by government agencies could be the lack of priority given to achieving annual revenue mobilization targets. In general, forest revenues may be insufficient to sustain NFFs in the long term.

TABLE 3
Main sources of capitalization, selected public domestic national forest funds

Fund	Source
National Forest Financing Fund (Costa Rica)	Fuel tax
Green Fund (Trinidad and Tobago)	Levy on general sales
Compensatory Afforestation Fund (India)	Compensation paid by forest-user agencies
Forest Fund (British Columbia, Canada)	Forest royalties
National Forest Fund (Croatia)	Timber sales
National Forest Fund (Morocco)	Tax on timber imports
Forest Fund (Mozambique)	Levy on forest concessions
Forest Development Fund (Zambia)	Forest licences/fees

Another major hurdle for capitalization strategies that depend on revenue derived from forest products is that such products may be collected and traded locally and informally. For example, the charcoal industry in Kenya was estimated to be worth more than US$425 million per year in 2008, employing more than 700 000 people, but it mostly operates informally and therefore contributes little to government revenue. Studies in the United Republic of Tanzania and Zambia indicate that the informal trade of forest products in those countries is similar in magnitude to that in Kenya (Gondo, 2010).

Recognizing the challenges associated with forest-based revenues, some funds have diversified their revenue sources. The examples of a fuel tax in Costa Rica (paid to its NFF, FONAFIFO) and compensation payments in India (paid to CAF) are of particular interest because they are based on the principle of "polluter pays". Levies imposed on industries to compensate for their environmental damage are likely to play an increasingly important role worldwide; they offer great promise as potential sources of NFF funding for undertaking mitigation measures and restoring lost environmental services. The making of such payments to NFFs is also an indicator of a country's commitment to improving environmental and social outcomes, and this may trigger interest in the international community in supporting NFFs. For example, Costa Rica's initial domestic policy for a fuel levy to fund FONAFIFO helped mobilize funds from bilateral and multilateral sources such as the World Bank and the GEF. Conservation trust funds in Bhutan, Colombia and the Philippines showed the commitment of those national governments to protecting and sustainably managing their forest resources and ultimately generated substantial donor funding. Viet Nam's pro-poor SFM policy, including its pioneering national PFES scheme, was one of the reasons for an initial donor commitment of 30.92 million euros.

Thus, strong government support and funding is important for legitimizing NFFs, validating and guaranteeing their financing mechanisms and generating trust among stakeholders. Experts at the NFF workshops highlighted the importance of starting NFFs to meet domestic needs and creating domestic structures for ensuring financial and organizational sustainability. Even for NFFs established with international funding, workshop participants stressed the need for contributions from the domestic public sector in the form of appropriate matching funds. Mozambique, the Philippines, the Solomon Islands and Vanuatu are all exploring the possibility of leveraging GEF funding through their NFFs (as Costa Rica has done through FONAFIFO), often with the NFFs to serve as co-financiers.

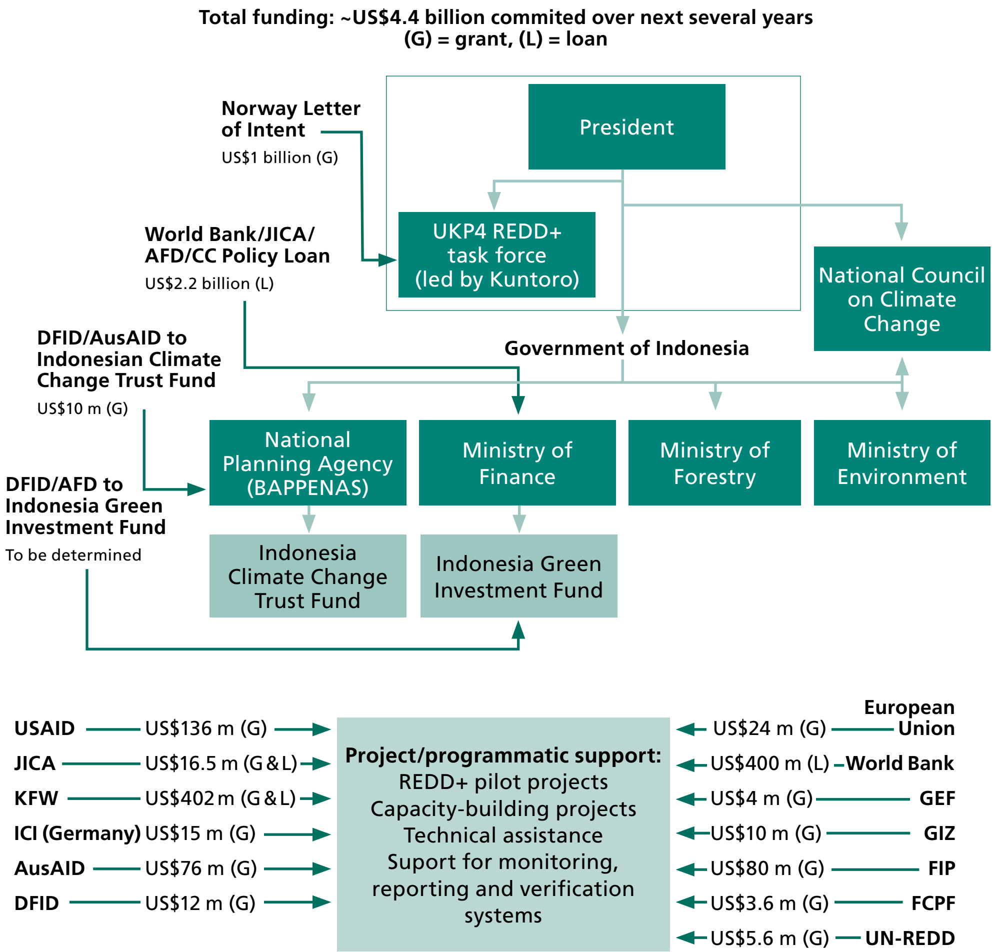
International funding

The capitalization process becomes more complex when it involves harnessing international funding, particularly sources related to climate change. For example, the possibility of large sums of money demands national structures capable of absorbing, re-directing and using such sums efficiently. The potential complexity of administering incoming funds from various sources is demonstrated by the case of Indonesia (Figure 4), where international contributions related to climate change are allocated to ministries and government entities directly, or fed into funds such as the Indonesia Climate Change Trust Fund.

Participants at the NFF workshop in Latin America favoured earmarking international climate-change-related funding for NFFs with long-term perspectives, and these are most likely to be in place in countries where domestic policies have already "set the stage". In other words, having the necessary policy and institutional frameworks in place facilitates better access to international funding. For example, FONAFIFO was able to secure funding from the Forest Carbon Partnership Facility's Carbon Fund to implement an emission reductions programme in Costa Rica. FONAFIFO is responsible for managing and coordinating the country's REDD+ strategy and for executing the "readiness package", and it is also responsible for linking with stakeholders to undertake activities that reduce emissions from deforestation and forest degradation, conserve forests, promote SFM, and enhance forest carbon stocks. This has been made possible by the development of mechanisms for cost-effective and verifiable reductions in greenhouse gas emissions as well as by the clear demonstration that FONAFIFO could meet the requirements of the funding agency.

Other countries, such as Indonesia, are in the process of developing legal and institutional provisions to harness international funding effectively. International funding sources will be particularly important in Africa, where, on average, funds sourced from international development partners amounted to about 41 percent of forest-sector expenditure (Gondo, 2010). Some countries, such as Burundi, Chad, Madagascar, Mali, Niger, Senegal and the United Republic of Tanzania, remain heavily dependent (i.e. more than 60 percent) on external sources for their public expenditure on forestry, and this is likely to continue.

FIGURE 4
Arrangements for channelling incoming funding on climate change in Indonesia



Source: Redrawn from Brown and Peskett, 2011
Note: AFD = Agence Française de Développement; DFID = Department for International Development (United Kingdom); FCPF = Forest Carbon Partnership Facility; FIP = Forest Investment Fund; GEF = Global Environment Facility; GIZ (formerly GTZ) = Deutsche Gesellschaft für internationale Zusammenarbeit GmbH; ICI = International Climate Initiative; JICA = Japan International Cooperation Agency; KfW = Kreditanstalt für Wiederaufbau; UN-REDD = United Nations Collaborative Initiative on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries; and USAID = United States Agency for International Development.

Private sector

Resource mobilization in the private sector ranges from voluntary payments to public–private partnerships. FONAFIFO is a good example of a public-sector organization that has complemented its funding with schemes involving the private sector, including voluntary contributions through corporate social responsibility programmes such as green labelling, "Fly Clean" and "Solidarity". The Certificate of Environmental Services, for example, was created to raise funds from private businesses interested in protecting environmental services in specific areas. Such private funds are matched with government funds and bilateral and multilateral grants and loans. A similar programme is being developed in Morocco. The Philippines' Tropical Forest Conservation Fund has supported watershed management plans and institutionalized multistakeholder management arrangements through public–private partnerships to promote community enterprises and advance their livelihood opportunities. Since 2005, the Tropical Forest Conservation Fund has leveraged US$3.4 million by partnering NGOs and private organizations as counterpart investments. Viet Nam's VNFF has also been successful in collecting payments from companies (mostly hydroelectric companies). Some NFFs have approached commercial airlines and tourism sectors (mostly national but also international) to mobilize resources.

As noted by Elson (2012), governments (in this case, as represented by NFFs) with limited business skills often invest in commercial forest enterprises, while the for-profit sector expends a great deal of energy dealing with hostile policy environments, which are the domain of governments. Investments by the not-for-profit sector in soft loans and partial subsidy programmes aimed at meeting environmental or social objectives often allocate capital and other resources poorly. The end result in such investment approaches is inefficiency, ineffectiveness and limited progress on the ground. The best results will be obtained through a judicious blend of government, for-profit and not-for-profit resources and the channelling of investments to activities that make best use of the comparative advantages of the public, for-profit and not-for-profit sectors (Elson, 2012).

Overall, the ability of many NFFs to channel private finance to the forest sector is weak, and there is significant potential for improvement. Among other things, this will require NFFs to establish a track record of success to satisfy the expectations of private investors for returns on investment (financial, social or environmental).

Other funding arrangements

Taxation can play a central role in the financial sustainability of NFFs, both by providing funds and by attracting private and institutional investors. The tax status of an NFF is tied closely to its legal status and classification. Under domestic laws, certain legal entities qualify for tax-exempt status; these may include trust funds, foundations and other entities created to serve the public good. NFFs that are tax-exempt are likely to have a greater proportion of funds available for furthering their missions. Tax laws could also be an important determinant in the attractiveness of NFFs to donors. For example, domestic laws governing foundations may allow donors to claim tax relief for "charitable donations", usually up to a certain limit. Laws in donor countries may also affect decisions to donate to NFFs in other countries. For example, most countries in the European Union do not offer tax relief for donations to "non-resident foundations"; Poland is an exception to this.

BOX 5

Approach to financial sustainability for a conservation trust in Colombia

Colombia's Cuenta del Acuerdo para la Conservación de Bosques (Forest Conservation Agreement – FCA) was capitalized initially through a debt-for-nature swap in 2004. A sum of US$10 million was allocated to the FCA for forest conservation, of which US$5 million was earmarked for project-related expenditure and the other US$5 million was allocated to a capital fund. The capital fund has been invested in holdings issued or guaranteed by the Colombian Central Bank or in the publicly traded stocks of industrial and commercial companies, banks, financial corporations and public debt or commercial bonds with AAA, AA+ or equivalent ratings. The aim is to achieve significant returns from these investments to finance FCA activities in the long term. It is anticipated that the fund will receive net returns from the investments by 2016. Until then, projects and activities are funded through donor contributions and from the government budget; those sources will be reduced in coming years.

Source: CATIE, 2013

Some conservation trust funds have sought new ways to ensure financial sustainability by investing part of their funds in capital markets (Box 5). Professional fund managers are engaged to ensure that these funds are invested at minimal risk.

FUND UTILIZATION

Many NFFs face challenges related to the effective use of mobilized funds. For some, such as India's CAF, this seems to be a bigger problem than fund capitalization. Fund utilization consists of four basic components: 1) identifying priority areas; 2) prioritizing eligible beneficiaries and activities; 3) deciding on types of assistance; and 4) developing a detailed fund access (project solicitation and fund granting) mechanism. Even for NFFs with narrow purposes (such as the Gambia's NFF) there is potential for greater elaboration of guidelines in the use of funds. Many NFFs do not have a rigorous approach to fund utilization; for example, the main type of assistance is in the form of grants and the most common activity funded is forest plantation development. Only in a few cases do there seem to be well-developed guidelines and evidence of their implementation on the ground.

Most case-study NFFs cite obtaining qualified and competent proposals as the biggest challenge to the effective use of their funds. Brazil's FNDF described this as an "ever-present" challenge that requires investment in the necessary structures, with economies of scale. For some NFFs, transparent procedures for reviewing and approving grants are not commonly available, and these need to be established. Some NFFs also require an overlay of donor requirements that complicates the project selection process. Similarly, where mechanisms for complementary co-financing are involved, the effective use of funds entails the implementation of synergistic actions among federal, state and local governments. In the early years of grant-making in the Tropical Forest Conservation

Fund in the Philippines, the approval rate averaged 12 percent because of the poor quality of proposals received; over the years, however, the rate has increased to 45 percent. The complicated nature of requirements, such as licensing for small-scale farmers, is a major barrier in Malaysia. Other obstacles to the effective use of NFF funds include a lack of awareness about NFFs, complicated administrative procedures, low levels of funding, and a lack of appropriate technical support (and other inputs, such as tree seeds in the United Republic of Tanzania).

Identifying priority areas for funding

Priority areas for funding – such as forest plantation development, the conservation of natural forests, forest industry, community forestry, agroforestry, and forest-related climate-change mitigation and adaptation measures – are usually identified in the original law or statute that enabled the creation of the NFF, or they may be outlined in subsequent rules or guidelines. Some funds indicate almost all possible activities in their "areas of support". However, funds with specific target areas, such as biodiversity conservation, the protection of natural forests, community forestry, or private forest development, seem to have had a greater impact. In large funds it is logical to have separate windows to cater to different priorities based on pre-identified objectives and criteria. Table 4 shows that Costa Rica's FONAFIFO has favoured forest protection over other management approaches.

TABLE 4
Extent of forest area supported by Costa Rica's National Forest Financing Fund, by management approach, as of 2013

Management approach	Area ha (% of total)
Forest management	4 307.83 (10.4)
Forest protection	32 506.98 (78.5)
"Solidarity" scheme	2 217.30 (5.4)
Reforestation	2 135.46 (5.2)
Natural regeneration	221.20 (0.5)

Source: CATIE, 2013

FONAFIFO also assists activities that encourage entrepreneurship and foster business linkages. Experience has shown that NFF support must be comprehensive, and there must be a clear vision that takes the forest-sector development needs of a particular region or country fully into account. Experience also underlines that isolated and fragmented support that is not linked to a clear analysis of value chains and markets results in weak business models (CATIE, 2013). To achieve real and lasting impacts, therefore, it is essential that NFFs support activities along the entire value chain, from forest production to certification and marketing.

An innovative way to identify priority areas is to keep funding options (and resource allocations across windows) open and flexible and to let demand (i.e. submitted project proposals) inform it. This is a good strategy in the early stages of fund operationalization, enabling decisions to be made based on emerging priorities.

Eligible beneficiaries and activities

The majority of NFFs in developing countries support forest investments by local farmers, communities and small forestholders. As illustrated in Table 5, some funds, however, have specific beneficiary groups.

TABLE 5
Examples of national forest funds supporting specific beneficiary groups

Fund	Main beneficiaries
Forest Development Management Fund, Malawi	Forest Department
Forest Trust Fund, Norway	Private forest owners
National Forest Financing Fund, Costa Rica	Small and medium-sized forest owners
Forest Conservation Fund, Jamaica	Non-governmental/civil-society organizations
Forest and Wildlife Development Fund, Mozambique (Ministerial Decree No. 93/2005)	Local communities
Compensatory Afforestation Fund, India	State governments

Prioritizing beneficiaries and activities to ensure the effective use of limited resources is particularly important in funds that administer PES and other incentive schemes. Piloting some activities may be advisable before scaling them up to include other groups. It is also important to take into consideration existing provisions and obligations while extending benefits to new groups of beneficiaries. FONAFIFO provides a good illustration of how different categories of beneficiaries can be supported differently according to pre-identified criteria or priorities (Box 6).

BOX 6
The application of differential rates of interest

Costa Rica's National Forest Financing Fund (FONAFIFO) is addressing the financing gap by offering credit lines to enterprises at differential rates of interest. The interest rates increase along the value chain, and they are lower for the most capital-intensive investments.

The five credit lines in FONIFIFO are:

1. Forest production – 6 percent interest rate. Eligible activities are nurseries, afforestation, forest management, forest use, harvesting and primary processing, and agroforestry.
2. Forest industries – 9 percent interest rate. The eligible activity is industry-scale primary and secondary processing.

Continues

Box 6 continued

3. Forest-based development – 9 percent interest rate. Eligible activities are forest-related activities such as ecotourism.
4. Forest products trade – 12 percent interest rate.
5. Organizational development – 8 percent interest rate.

Source: CATIE, 2013

Forests and trees play major roles in the livelihoods of many rural communities and urban poor (Matta, 2009). In the majority of African countries, for example, over 70 percent of forestry activities are undertaken in the informal or smallholder sectors (FAO, 2014). These sectors are characterized by SMEs that operate largely at the household level, mostly employing family members or neighbours. SMEs usually have very limited access to credit and other financial services provided by formal financial institutions. Although other financial services such as microfinance and ad hoc trade contracts with buyers have become more prominent in recent years in addressing this financing gap, they charge very high interest rates and impose short and coercive repayment obligations and many other social and financial burdens (Elson, 2012).

Efforts to promote SFM and improve the livelihoods of forest communities, therefore, need alternative financing models, such as NFFs (Matta, 2009). NFFs could play a particularly important role in bridging the SME financing gap and helping enterprises that otherwise struggle to obtain fair financial services. If properly structured, NFFs are well placed to perform such a function because of their flexibility. In particular, their capacity to operate through intermediaries or partners to combine technical and financial assistance can help ensure the effectiveness of targeted investments. As noted in the previous section, the private-sector financing component of Rwanda's FONERWA is managed in partnership with the Rwanda Development Bank. In Costa Rica, Fundación para el Desarrollo de la Cordillera Volcánica Central (FUNDECOR), an NGO, serves as an intermediary between FONAFIFO and forest owners, providing the necessary technical support to translate financial services into concrete action on the ground. This support often includes developing proposals to access FONAFIFO's financial support, which seems to be a crucial factor in ensuring that effective use is made of FONAFIFO's resources.

Type of assistance

Given the wide variation among intended beneficiaries and the types of activities they would like to undertake, funding support from NFFs varies in terms of its magnitude, nature and scope. It may also be characterized as small-, medium- or large-scale funding; monetary, material or technical assistance; and outright grants, cost-sharing, subsidies or loans. Assistance may also have a temporal dimension because prospective beneficiaries may need different kinds of investment support at different growth stages of their enterprises, ranging from initial capital to price guarantees. Many NFFs offer these kinds of support, but they may lack adequate mechanisms for matching investor needs with investment types. Table 6 sets out some of the economic instruments that NFFs could make available, and their main characteristics and implications. The best results are likely to be achieved through a combination of mechanisms applied to suit the actual situation.

TABLE 6
Economic instruments that national forest funds could use

Type	Characteristics	Implications
Grants	• Normally one-time support involving no repayment	• Not self-sustaining • Limited entrepreneurship/ownership • Can create dependency
Loans	• Medium to long term • Repayment obligation • Carries interest	• Need business models with guaranteed returns • Require strong ownership and management skills
Subsidies	• Selective payments that subsidize particular inputs or practices	• Potential to promote sustainable forest management practices, sustainable development, and climate-change mitigation/adaptation
Advance market commitment, buyback arrangements, or out-grower schemes	• Binding contracts, typically offered by forest companies or other financial entities, guaranteeing viable markets for products	• Can stimulate private sector with incentive-based funding • Can save public/donor money for other purposes
Guarantees	• Guarantee projects by covering some of the risks of investors	• Mitigate partial risk, particularly for small and medium-sized enterprises across the value chain
Insurance	• Insure certain production/performance risks of project developers or private investors	• National forest fund can help promote index insurance that protects farmers from market and production risks
Compensation payments	• Payments for conservation efforts, tree-planting, improved management, etc.	• Can compensate for opportunity costs and overcome barriers due to loss of income and thus stimulate sustainable forest management
Direct payments for environmental products/services	• Through market transactions for environmental services (for example)	• Market-based approach to payments for environmental services • Major weaknesses are a general reluctance to pay, and estimating the monetary value of environmental services

Source: Adapted from Elson, 2012

As shown in other studies that analysed the functioning of conservation trust funds (GEF, 1998), better outcomes are usually achieved when investments are accompanied by technical assistance aimed at strengthening business capacity, thereby helping ensure that the provided capital is used productively and sustainably. One of the roles envisaged for NFFs is to act as knowledgeable and legitimate “financing facilitators” (for example, matching the finance type with the business). This role involves linking the supply and demand sides of forest enterprises by actively working with them. NFFs can improve access to finance by identifying the specific requirements of enterprises and the conditions that need to be put in place. They can also help in identifying opportunities for creating linkages between forest producers and forest companies through private–private partnerships. Such facilitation could also help increase the access of small producers to markets, financing, insurance, technical know-how and other material inputs. No NFFs currently take this approach, however, although FUNDECOR in Costa Rica, supported by FONAFIFO, undertakes some of the suggested activities. Participants at the NFF workshop in Latin America underscored the need for such a financing facilitator. Similarly, participants at the NFF workshop in Africa suggested that the use to which NFFs are put, especially by low-income groups, could be increased by promoting awareness about the funding support they offer and decentralizing their access points.

Proposal solicitation and grant-making

A few of the case-study NFFs (e.g. the Tanzania Forest Fund, FONAFIFO, the Tropical Forest Conservation Fund in the Philippines, and the Bhutan Trust Fund for Environmental Conservation) have systematic processes for soliciting proposals, granting funds and following up. Some NFFs, such as CAF, limit funding to subnational governments, and their procedures are specific to that case. All NFFs, however, require a systematic and well-detailed proposal solicitation process that is open and transparent. Such a process should include, for example, the frequency and timing of proposal seeking, the procedure to be followed for submission, the aspects that should be included in the application, the criteria for selection, and the timelines involved. In addition to having a specific format, all pertinent information should be made available on the NFF's website (well-performing NFFs have dedicated websites). Box 7 presents the key criteria used in project selection in the Tanzania Forest Fund.

BOX 7

Key criteria for project selection in the Tanzania Forest Fund

- Project contributes directly or indirectly to the conservation and management of forest resources
- Project provides tangible benefits (directly or indirectly) to target groups
- Operations are transparent and accountable
- Project is innovative in its approach
- Applicability of the results
- Attainment of objectives
- Capability of the applicant to implement and manage the project
- Sustainability of project interventions
- Participation level of stakeholders
- Applicant committed to contribute 20 percent (cash or in kind)

Source: AFF, 2014

A fund may also have procedures for decision-making on applications and how decisions are communicated to applicants. Generally, submitted proposals are processed by an executive secretariat and forwarded to the governing body, accompanied by assessments of eligibility and other aspects. The NFF also needs modalities for the disbursement of funds (e.g. by cheque or direct bank transfer). Fund disbursement modalities are critical for ensuring that authorized funds are disbursed to actual applicants in a timely fashion. Other procedures are needed for: financial withdrawals, returns and declinations; the administration of grants; the suspension or termination of grants; and reporting, supervision, monitoring and evaluation.

The following aspects may bring additional value to NFF procedures:

- creating a strong awareness of the NFF through, for example, brochures and a dedicated website on which all relevant information is posted;
- ensuring that only legally established/recognized entities or beneficiaries are eligible for financial support;
- planning the disbursement of funds in such a way that does not impair implementation; and
- ensuring that NFF staff or appointed agents physically verify that activities have taken place.

FUND OVERSIGHT

NFFs should have built-in oversight mechanisms to ensure that their impacts are properly assessed, that they meet the objectives for which they were established, and to provide feedback as part of a process of continual improvement. Oversight is needed of both individual projects funded by an NFF and the institution itself (LEAF, 2013).

The concentration of capital in funds such as NFFs offers potential opportunities for the illegal diversion of money. Flexibility in management without transparency and accountability can make such funds further vulnerable to corruption and illegality. In the period 1993–1998, for example, US$5.2 billion of public funds were lost from Indonesia's Reforestation Fund due to systematic financial mismanagement and the fraudulent practices of subsidy recipients (Barr *et al*., 2010). Financial losses of this magnitude and associated reputational risks underline the need for robust oversight mechanisms in NFFs. Few NFFs engage in regular, systematic and detailed monitoring and evaluation, however. Effective fund design can help ensure transparency and make the illegal diversion of funds more difficult. Systems for oversight and monitoring are usually determined at the establishment of an NFF through its enabling instruments and through relevant laws governing the organization and operation of such funds. Such systems may include internal mechanisms, as well as requirements to report to authorities outside the NFF. Some general ways of improving oversight within and outside NFFs are discussed below.

Broadening representation in fund management and decision-making

One way of increasing stakeholder involvement is to open up membership in governing bodies and management committees to relevant and competent groups and actors. This is particularly important for NFFs that are hosted and managed by government agencies.

BOX 8

The Amazon Fund

The Amazon Fund was established by the Brazilian Government with the aim of reducing the rate of deforestation in the Brazilian Amazon by 80 percent by 2020 (relative to the 1996–2005 average). The Norwegian Government committed US$1 billion to the fund to 2015, tied to the measurement of annual performance against forest delivery targets. Funds are held in a special account in the state-owned Brazilian Development Bank and replenished by donations. The bank also facilitates contracts and supports and monitors projects and other efforts. The Amazon Fund's decision-making structure is based on the Amazon Fund Guidance Committee (COFA) and the Amazon Fund Technical Committee (AFTC).

COFA is a three-bloc committee comprising the federal government, state governments and civil society (including indigenous peoples, traditional communities, non-governmental organizations, industry and scientists). Each bloc holds one vote on committee decisions and each member holds one vote inside his or her bloc. COFA has responsibility for setting guidelines and criteria for projects. The AFTC consists of six technical and scientific experts appointed by the Ministry of Environment for three-year terms, extendable once for an equal period. The AFTC issues certificates of carbon emission reductions and calculates the amount of carbon per hectare as well as the amount of deforestation avoided. An independent auditor assesses whether spending adheres to the guidelines set by COFA.

Source: www.climatefundsupdate.org

The importance of having private-sector, NGO and civil-society representatives in NFF governing bodies was noted earlier in the chapter. Another common way to promote transparency and accountability internally is to designate specialized bodies, such as advisory boards or committees, with responsibility for oversight and the monitoring of financial and technical aspects of performance. Such specialized bodies enjoy varying degrees of autonomy but are usually nested within the fund's organizational and decision-making structure. For example, the board of trustees of the Philippines Tropical Forest Conservation Foundation (which administers the Tropical Forest Conservation Fund) exercises oversight via two specialized committees: the programme committee for programme direction, project evaluations and monitoring; and the finance committee for fund utilization and investments (CIFOR, 2013). Staff of the foundation, and sometimes members of the board of trustees, provide oversight of the fund and conduct regular monitoring throughout the implementation of projects, and they measure performance against a results framework created from approved project descriptions. In the Uganda National Tree Fund, the government cabinet has put in place procedures to replace a specialized steering committee with a full board to provide fund oversight (Gondo and Mandota, 2013). Box 8 describes the system used for the Amazon Fund in Brazil as an example of a management structure with the necessary checks and balances for ensuring adequate oversight.

Strengthening provisions for external monitoring and oversight

Transparency and accountability can be increased through external monitoring and oversight. This is often done through periodic reports to national authorities such as the auditor general and legislative bodies. Government auditing is a common legal requirement for funds held as independent accounts within government agencies. Funds that are set up as independent or quasi-independent entities should have accounting provisions written into their enabling legislation. To facilitate audits, laws may require fund administrators to keep records and make annual reports. South Africa requires the accounting officer of the National Forest Recreation and Access Trust to keep records of assets, liabilities and financial transactions and prepare annual financial statements. The United Republic of Tanzania's law requires the trustees of the Tanzania Forest Fund to publish an annual report, including audited accounts.

In Nigeria, the Ministry of Environment and the Ecological Fund Office oversee transparency issues related to the Ecological Fund, while the National Committee on Ecological Problems serves as the fund's advisory board. The Ecological Fund Office is responsible for record-keeping and accounting functions, while the Federation Office's Accountant General and the Auditor General perform regular auditing.

BOX 9

Forest fund, forest land-use planning and deforestation in Argentina's Chaco ecoregion

In November 2007, Argentina enacted Law 26.331 (Ley de Presupuestos Mínimos de Protección Ambiental de los Bosques Nativos) to protect natural forest through forest land-use planning (ordenamiento territorial de bosques nativos) and payments for environmental services through an NFF. Provinces were given one year to develop and formally adopt their provincial forest land-use plans to qualify for access to the financial resources of the Fondo Nacional para el Enriquecimeniento y la Conservacion de los Bosques Nativos. The law mandated that at least 0.3 percent of the annual public budget should accrue to this fund, but this target has never been reached. In 2010, only 36.5 percent of the mandated amount was deposited in the fund, and this declined to less than one-tenth in 2014. An amount equivalent to US$30 million was deposited in the fund in 2014.

The underfunding of the forest fund has received less criticism than its flawed implementation. The Auditor General observed various severe deficiencies, including "complex and disarticulated" administrative procedures, a disconnection between

Continues

Box 9 continued

the administrative, technical and financial evaluation of projects, and "difficulties" in benefiting indigenous and *campesino* communities because of unclear land tenure. According to the National Forest Directorate of the Secretariat of the Environment, of 1 500 management plans financed through the forest fund between 2010 and 2012, only 29 (1.9 percent) benefited small-scale, forest-dependent peoples.

Source: H. Thiel, FAO, personal communication, 2014

Government representatives also make up the "project monitoring team" on the technical committee of the Malaysian Timber Industry Development Fund, which is tasked with performing inspections, monitoring visits, and preparing project implementation progress reports (Othman, 2013). In the Gambia, the Director of Forests must submit annual estimates of fund income and expenditure for approval by the Secretary of State for Finance and Economic Affairs. The board of directors of the National Forest Institute must approve the annual plan of the Guatemala Special Forest Fund. The accounting officer of South Africa's National Forest Recreation and Access Trust must submit annual budgets to the appropriate minister for approval. Uruguay's Forest Fund must be used according to an approved annual plan. In Argentina, detailed national auditing was instrumental in revealing several discrepancies in the implementation of its NFF (Box 9).

Some NFFs enlist NGOs to assist with oversight and monitoring because of their capacity to facilitate community-based monitoring and reporting. In the Philippines, the Philippines Tropical Forest Conservation Foundation partnered with the Palawan NGO Network Inc. to support community-based forest monitoring. Costa Rica's FONAFIFO (Table 7) outsources monitoring, reporting and verification to the private sector (LEAF, 2013). Some NFFs combine the use of governmental representatives and non-governmental actors.

TABLE 7
Fund oversight in Costa Rica's National Forest Financing Fund compared with Indonesia's Reforestation Fund

National Forest Financing Fund (FONAFIFO)	Indonesian Reforestation Fund
Audits of FONAFIFO are done mainly by external organizations (i.e. licensed foresters, the national conservation area system, or non-governmental organizations), which are contracted for the work. Because FONAFIFO receives significant official development assistance, the auditing procedures specified in bilateral agreements apply	The Government of Indonesia has taken steps to improve transparency and accountability in the administration of the Reforestation Fund and other sources of state finance. The capacity of the Supreme Audit Board (BPK) was strengthened with its designation as the sole external auditor for the Government of Indonesia. Between 2004 and 2008, BPK conducted 29 audits related either directly or indirectly to the Reforestation Fund and published these on its website (www.bpk.go.id)

International agencies, including donors, can play significant roles in improving transparency and accountability and thereby improving the performance of NFFs. This is especially possible in situations where significant funding is sourced externally and through the "performance-based" funding requirements of donors. In some situations, international entities may have their own oversight and monitoring requirements for NFFs. For example, if the NFF is acting as a national implementing entity for the Adaptation Fund, it must meet the requirements of the Adaptation Fund's fiduciary standards. These include a section on institutional capacity, which requires NFFs implementing projects funded by the Adaptation Fund to develop the capacity to undertake the oversight and monitoring process (LEAF, 2013). Other multilateral or bilateral sources of funding may reinforce such general requirements through project-specific agreements.

A good example of oversight measures external to the fund playing an important role in increasing transparency and accountability is Indonesia's Reforestation Fund. According to Barr *et al.* (2010), in the face of pressure from the International Monetary Fund, the Government of Indonesia agreed to commission a comprehensive third-party financial audit of the fund, which is also subject to rigorous periodic audits by Indonesia's Supreme Audit Board and the high-profile Corruption Eradication Commission (Komisi Pemberantasan Korupsi) and Corruption Court.

Transparency can be improved by following best-governance practices, such as improving public access to information about the NFF and its use; raising awareness about the fund among the public through various media; and transferring money directly to beneficiary bank accounts. Rwanda's FONERWA indicates in its grant-making process that written justification is to be provided for both approved and non-approved applications. Moreover, to avoid conflicts of interest, FONERWA staff members involved directly in the development of proposals are not to be part of the project-screening team. In some countries, provisions under freedom-of-information legislation can require funds (in cases when public money is involved) to disclose information to interested citizens. In situation where NFFs are constituted as trusts, intended beneficiaries can ask courts to order an independent review of trust administration. They may also ask courts to enforce the terms of the trust, stop illegal uses of the trust, and stop trustee actions that fail to protect the interests of beneficiaries in the trust.

Strengthening the capacity of NFF staff to improve transparency and accountability can also help improve performance. Another possible measure to improve quality assurance in disbursement is the imposition of sanctions against errant grant recipients. If the grant recipient breaches the obligations set out in an agreement by, for example, providing incorrect information, using the grant for purposes other than those agreed, a lack of mandated control systems, or violating ethical guidelines, legal provisions should exist for imposing appropriate sanctions.

In places where corruption is endemic, there may be little reason to believe that, on its own, the creation of an NFF will contribute much towards greater accountability, no matter how well drafted are the procedural safeguards. Moreover, sustaining the political will to put in place and enforce regulations, transform agencies at various levels, and set up transparent systems is a daunting task. Nevertheless, fostering transparency and good financial governance is a win–win strategy, not only for managing a nation's valuable forest resources and generating new revenues, but also for overall societal development.

Evaluation

Evaluation is an integral part of oversight and can assist policymakers and NFF administrators in assessing the extent to which an NFF has achieved its intended objectives and impacts. In addition to gaining insights into the functioning of an NFF, periodic evaluation can help identify whether changes are needed. All well-performing NFFs in the study (e.g. in Brazil, Colombia, Costa Rica, the Philippines and the United Republic of Tanzania) have systematic evaluation programmes. On the other hand, NFFs hosted and managed by government agencies did not have built-in evaluation systems, which could be a major factor hindering their progress. For many NFFs, the lack of baseline data and the absence of well-defined objectives and target parameters are major challenges in developing and conducting systematic evaluations. A lack of transparency and the limited involvement of non-state actors further compound this problem.

TABLE 8
Indicative dimensions for evaluating national forest funds

Dimension	Main features
Effectiveness	• Evaluates national forest fund (NFF) accomplishments • Has the NFF achieved its objectives? • What are the NFF's outcomes or results, both intended and unintended?
Efficiency	• Examines parameters such as productivity, unit cost, utilization rates, backlogs and bureaucratic processes • Do NFFs maximize outputs in relation to costs and other resource inputs (e.g. number of project proposals reviewed per staff)? • Examines the extent to which the NFF has minimized its use of inputs (e.g. money, staff resources, equipment and facilities) consistent with the quality needs of the programme. For example, an economy audit may evaluate the validity of a competitive procurement process to ensure that costs have been controlled
Compliance	• Tests the NFF's conformity with objective requirements, standards or criteria. These types of audit typically assess compliance with laws and regulations, contract requirements, grant requirements and organizational policies and procedures. A relatively new service, environmental auditing, helps in examining compliance with environmental regulations
Policy and other prospective (forward-looking) evaluations	• Assesses programme or policy alternatives, forecasts potential programme outcomes under various assumptions, and evaluates the advantages and disadvantages of various legislative proposals. Auditors may also compile benchmarking or best-practice information to assist in evaluating programme design or management practices
Risk assessment	• Identifies risks that may affect the achievement of an NFF's strategic and financial goals and objectives and assesses management's response to those risks. In the forest sector, risks go beyond normal financial and operational risks and may include political and societal risks. For example, they may involve the political and economic consequences of the public's perception of fair and equitable treatment of target groups, resource use, the environment, and others

NFFs are often evaluated by donor agencies; for example, FONAFIFO has been evaluated by the World Bank, the GEF, Germany's KfW, Modena Italia's Life Gate, and the BioCarbon Fund. The results of these external evaluations, as well as internal evaluations, provide information that FONAFIFO's board of directors can use in revising, validating and updating the fund's programme and procedures. Table 8 presents some dimensions that could be considered in evaluating NFFs. Annex 7 lists potential indicators for evaluating the governance dimensions of environmental and forest funds.

Sound fund design and procedural safeguards can increase the operational costs of NFFs. It is important, therefore, to ensure that the cost of these due-diligence mechanisms do not outweigh the benefits they bring. It is also important to ensure a proper balance between provisions related to oversight and the NFF's autonomy so that it has the operational flexibility it needs to achieve its objectives.

OTHER ENABLING CONDITIONS

An appropriate enabling environment that is conducive to institutional and financial viability and sustainability is critical to the success of an NFF. It consists of external conditions that are beyond the direct influence of an NFF but which help it to function efficiently and effectively. Depending on the situation, a supportive enabling environment could be as simple as ensuring good governance, but it could also involve the development of pioneering policies and an openness to innovation and private-sector investment. A well-functioning NFF requires an environment that is supportive in three key aspects: 1) strong policy and political support at the highest levels of government; 2) well-defined tenure systems and property rights; and 3) a positive investment climate that encourages innovation and private-sector investment.

The absence of one or more of these three aspects should not deter the establishment of an NFF, however. Rather, proponents should ensure that such aspects of the enabling environment are addressed when developing the NFF architecture. Each of the three aspects is discussed further below.

Strong policy and political support

The justification for a long-term intervention such as an NFF needs to be sufficiently compelling to gain the attention and support of leaders at the highest levels of government. The public sector plays an important role in NFFs as promoter, investor, regulator and facilitator; it is also often the only source of funding for forestry activities focused on social and environmental benefits. Funds garnered through the public sector can perform an important leveraging function to boost private-sector investment.

Many existing NFFs benefited from championing by political leaders and legislators, who negotiated and promoted policies favouring forests with the strong involvement of the public sector and civil society. In Chile, for example, there was widespread belief at high levels of government that a forest-based industry could be an important economic sector, which ultimately led to the successful development of large-scale private forest plantations. In Costa Rica, the government invested strongly in major afforestation programmes (for both environmental protection and production). In Brazil and Indonesia, recognition of the importance of the role of forests in REDD+ by national policymakers can be said to have played an important role in the establishment of national funds and the provision of support through enabling legislation. Many other NFFs are backed by presidential decrees, parliamentary acts (e.g. the United Republic of Tanzania), and court judgments (e.g. India). On the other hand, a lack of political will was identified as the major reason for the failure of some NFFs to become operational or active (AFF, 2014).

Well-defined tenure and property rights

Well-defined tenure and property rights are often closely associated with the effectiveness of financing mechanisms and form a crucial part of the enabling environment. Policies to promote forest-tenure security act as key incentives for forestholders and forest managers to engage actively with NFFs and benefit from them. Importantly, the establishment and management of markets for environmental services can be constrained by a lack of clarity on property rights. In the absence of secure land-tenure and forest-use rights it is difficult for any party – the private sector, local communities or smallholders – to invest in such schemes. Secure property rights also improve efficiency by allowing landowners to devote resources to productive forestry purposes rather than to defending their holdings against expropriation by other agents (CIFOR, 2013). Thus, the national framework of tenure and land rights needs to be considered carefully when establishing an NFF because it is likely to have a considerable impact on NFF design and implementation.

Conducive investment climate

Forest-sector investments tend to be long-term, highly risk-prone and poorly serviced. Most markets for environmental services are in the initial stages of development; tools for assessing and addressing opportunities and risks are limited or unavailable, and concrete experiences using robust business models are rare. As a result, forest investors – both national and international – continue to face a number of challenges, such as the current undervaluation of the environmental services provided by forests. In addition to forest-sector-specific incentives, a generally pro-business environment is vital for attracting private investments in forestry and to the success and sustainability of an NFF. Such an environment would include openness to free-market principles, transparency and accountability in business transactions, and simple, quick dispute-resolution mechanisms. A pro-business environment would also include a basic setting of reliable and trustworthy legal and financial structures and supporting institutions (e.g. financial, banking, contracting and auditing services). CATIE (2013) attributed the good performance of NFFs in Latin America largely to the existence of such a positive investment climate.

Moving forward, there is a need to continuously reflect on the experiences of existing NFFs and to address current and emerging challenges.

4. Moving forward

NFFs have been touted as a major means for addressing the challenge of financing SFM, including by helping countries improve their forest-related financial architecture and governance. While NFFs are gaining in importance, their efficacy in the field is uneven. The analysis of case studies and literature presented in this report indicates that despite strong interest in some countries in promoting NFFs, this task is made difficult by institutional complexities and by the limited capacities of NFFs and ambiguities about their roles. There is a strong need, therefore, to improve the performance of NFFs, particularly by promoting their ability to: help meet long-term investment needs; leverage additional sources of funding; encourage private-sector investment; and enable a portfolio approach to forest financing. Significant challenges remain that need to be addressed to improve the contribution and effectiveness of NFFs. Moving forward, there is a need to continuously reflect on the experiences of existing NFFs and to address current and emerging challenges. For this to happen, the actions described below may be needed.

Increase awareness of NFFs

There is an overwhelming need to create more awareness about NFFs and their activities within and outside government structures – subnationally, nationally and globally. There is a void in communication; sometimes, not even other departments in a government are aware of the existence of an NFF. More awareness of the role of NFFs could leverage additional interest from the private sector. Raising awareness among the public through media and improved public access to information about NFFs and their use are also necessary for increasing transparency.

Link national forest priorities to international processes and opportunities

NFFs face the challenge of harmonizing the external requirements of international finance opportunities with the specific needs of the domestic forest sector. NFFs that want to be recipients of international REDD+ funds particularly have to rise to the occasion by suitably elevating their financial governance and fiduciary standards. This is a major challenge but, given the overall benefits such a transition would confer, it would be a win–win effort. In addition, NFFs have the potential to register as national implementing entities to access other global financing sources, such as the GEF and the Adaptation Fund, through dedicated capacity-building efforts. International cooperation could be a key for developing these capacities in NFFs and their managing entities in order to link them effectively to the emerging global climate finance architecture. Simultaneously, NFFs should be strongly encouraged and supported in their mission to focus on specific national priorities, including the sustainable, productive use of forest resources.

Improved governance

Good governance requires robust but flexible governance structures that are open and inclusive. There is a need for wide representation (e.g. business, academic, non-governmental and indigenous/local community) in NFF governing bodies to promote innovation and synergies and help ensure management transparency. The design of NFFs should also set high standards of financial governance and define basic accountability criteria and indicators. The systematic monitoring and evaluation of performance of both the institution itself and the projects it supports will assist the process of continual improvement and increase effectiveness. Disclosing criteria and procedures for accessing NFF resources and making financial and other reports available to the public will go a long a way in building credibility.

Innovation is a key ingredient

There is a need to diversify funding sources as a way of increasing the stability and sustainability of NFFs. Efforts to identify new and innovative sources should be intensified. NFFs should be open to a wide range of income possibilities (for example, India's CAF has had great success with its "polluter pays" approach). Many NFFs are interested in PES schemes, but, in some countries, fully realizing their potential will require significant development of the policy framework. In accelerating the evolution of PES schemes, there is huge potential and demand for cooperation and the exchange of experiences at the global level.

Increase private-sector investment

A broad range of private-sector entities – beyond those directly related to the forest sector – may be willing to invest in SFM. Information on the performance of conservation trust funds and environmental funds shows that it is possible to harness private-sector resources in innovative ways. There are ample opportunities for NFFs to proactively involve the private sector and to leverage their resources through innovative business models. Nevertheless, few NFFs have been able to attract significant private-sector support and there is an urgent need to address this. The key to motivating the private sector to support NFFs is creating an attractive business case for them to do so, which may require significant changes in the policy environment.

Decentralization

The decentralization of NFFs may increase the accessibility of their funds to local communities, NGOs and other stakeholders directly involved in the implementation of forest activities. Decentralization can also increase the responsiveness of NFFs to local needs within a clear strategic framework. NFFs may need to restructure to effectively administer funds and offer proper technical support at the decentralized level. NFFs that aim to leverage the vast potential of local communities in building sustainable forest-based economies will need to invest in capacity development.

Create a global NFF platform

It may be beneficial to create a global NFF platform with the aim of increasing awareness of the role of NFFs, generating collaboration among NFFs, and fostering a supportive policy environment. The platform, which could be tailored to suit differing regional contexts, could encourage the sharing of information and knowledge on real-world experiences related to NFFs. It could address topics such as funding sources, implementation, oversight and monitoring and assist in coordinating international finance streams, identifying finance gaps, and promoting coordination among donors and international and national forestry institutions. Such a platform could play a particularly important role given the failure of past efforts to create a global forest fund.

In conclusion, it is evident that NFFs have become key components of the global forest financing architecture. While systematic information on their effectiveness is still limited, in cases where they are well structured and well managed, NFFs have made significant contributions to SFM and forest conservation and development. They have also proved their potential for mobilizing significant resources when linked closely to, and guided by, NFPs and other broader national goals and strategic policy frameworks. Many NFFs have also been able to articulate the contributions of forests to broader development objectives, from poverty alleviation and the provision of safe drinking water to climate-change mitigation and adaptation.

Nevertheless, many challenges remain in improving the governance and institutional capacity of NFFs and their accessibility to forest stakeholders. At a time when ensuring that public investments are “good value” for money has never been more important, improving NFFs presents both a challenge and an immense opportunity for the global forest community.

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Annexes

Annex 1
Updated list of national forest funds and other similar mechanisms with significant forest financing portfolios

	Country	Name of fund	Brief description
1	Albania	Fund of the Directory General of Forest and Pasture	Reserves a percentage of revenues from government forests to support forest-related activities
2	Argentina	Fondo Nacional para el Enriquecimeniento y la Conservacion de los Bosques Nativos	Argentina's Law 26.331, issued in 2007, created a forest fund with public resources earmarked for the provinces that promote the sustainable use of native forests and payments for environmental services. Replenished by 2 percent retention of agricultural primary export revenues. In recent years, around US$55 million has been transferred annually to the fund
3	Bhutan	Bhutan Trust Fund for Environmental Conservation[1]	Established in 1992. The main focus is on the conservation of forests, flora, fauna, wildlife, diverse ecosystems and biodiversity. The endowment fund is the most important asset of the fund and has been successful at more than doubling its original amount
4	Bolivia	National Fund for Forest Development	Reserves revenues from multiple sources for forest projects
5	Botswana	Forest Conservation of Botswana and the Botswana Environment Fund	Income received is used for community forestry, reforestation and afforestation, and management planning
6	Brazil	Reforestation Fund	Uses income for reforestation projects
		Amazon Fund for Forest Conservation and Climate Protection	Established in 2008 and managed by the Brazilian Development Bank. The majority of its funding comes from the governments of Norway and Germany, and from Petrobras (a Brazilian oil company), and the focus is on preventing deforestation
		Fundo Nacional de Desenvolvimento Florestal	A public fund created in 2006 with regulatory specifications issued in 2010. Managed by the Brazilian Forest Service
7	Bulgaria	Concessions Cost Recovery Fund	Reserves a portion of the income from concessions to cover administration costs
8	Burkina Faso	Fonds Forestier	Holds donations and other income for use in forest, wildlife and fishery projects

	Country	Name of fund	Brief description
9	Cameroon	Fonds Spécial de Développement Forestier	Formerly received money from multiple sources; now apparently takes money from annual budget allotment to use for forest purposes
10	Canada	Forest Resource Improvement Association of Alberta	Quasi-public provincial entity that collects forest-related dues, levies and fees and spends them on reforestation and forest management
		Forest Investment Account (British Columbia)	Established in 2002 to assist government in developing a globally recognized, sustainably managed forest industry. Projects include information gathering and management, restoration and rehabilitation, forest health activities, etc.
11	Chile	Fund for native forests	Created consequent to the law adopted in 2008 that provided for the protection of native forests. The process to develop the fund took around 20 years and is now in its first five years of implementation
12	Republic of the Congo	Fonds d'aménagement et des ressources naturelles	Receives income from multiple sources. Finances work in forestry, wildlife and aquaculture on general forestry administration, research, reforestation and afforestation, management planning, forest-related plan implementation and the promotion of forest-based manufacturing
13	Colombia	Account for the Conservation of Forests[1]	Managed by Colombian Fondo Acción. Started with swapping part of the national debt for conservation. Other sources include donations and grants. The fund begun in 2004 and has had a coverage of 3.4 million hectares in five areas. Concentrates on the conservation and protection of native forests and not reforestation
14	Costa Rica	National Forest Financing Fund	Focuses on small and mid-sized landowners; receives income from various sources, including a tax on fossil fuels. Reimburses forest owners for the provision of environmental services
15	Côte d'Ivoire	Forest Development Fund	Suggested uses of revenue include: sustainable conservation of national parks and reserves; replenishment; inventory and sustainable management of forest and wildlife; monitoring of forest resources; evaluation activities; and improvements in the sustainable management of forests
16	Croatia	Simple Biological Reproduction Account	Collects a portion of income from timber sales, plus the proceeds of a general tax on industry (representing the value of environmental services) for financing reforestation
17	Cuba	National Fund for Forest Development	Promotes activities to conserve and develop forest resources, particularly inventories, management, protection and research
18	Cyprus	Communal Forest Funds	Individual funds for each communal forest receive income from forest produce to finance forest management
19	Dominican Republic	Special Fund	Receives income from multiple sources, including the sale of special postal stamps. Spends income on the conservation of forest resources, reforestation and agroforestry, fire and forest disease prevention, and extension
		Forest Trust Fund	Receives income from donations and from compensation for environmental services. Spends on sustainable forest development in priority areas

	Country	Name of fund	Brief description
20	France	Fonds Forestier National	Takes income from a tax on forest products and supports research, tree nurseries, forestry promotion, public education, public-sector afforestation and forest protection, and private afforestation
21	Gabon	Fonds Forestier National	Operationalized in 2012. Income from the fund is used to support general forestry administration, market promotion, research, public education, tree nurseries, public participation in government forest policy activities, community forestry, reforestation and afforestation management planning, forest-related plan implementation, promotion of production of environmental services, promotion of forest-based manufacturing and economic development of forest communities
22	Gambia	National Forestry Fund	Receives money from multiple sources (sale of forest products, forest parks, community forestry, forest fees and royalties, fund-financed projects, general revenues and donations) to support the protection, development and sustainable use of forests and promotion of community forestry
23	Guatemala	Special Forest Fund	Income generated from multiple sources and funds spent on forest development, industrial forestry, the management of natural resources, agroforestry, watershed restoration, reforestation, research, agroforestry education, and other purposes
24	Guinea	Fonds Forestier	A general forest development fund tapping several forest-related income sources, including products from the exploitation of state forests, taxes and fees from the application of forest laws, fines and penalties, the sale of confiscated items, net profits of a public wood-processing enterprise, and loans and donations from state and international organizations
25	Guinea Bissau	National Forest Fund	Forest management and development. Several forest-related income sources (taxes, fines, sale of forest produce)
26	India	Compensatory Afforestation Fund	Constituted based on the order of the Supreme Court of India dated 5 May 2006 and operationalized in 2009. Follows a specialized financing mechanism based on the "polluter pays" principle designed to levy those who use forests. Funds collected are used to mitigate losses by investing in afforestation, reforestation and conservation
27	Indonesia	Reforestation Fund	Obtains income from a tax on logs, woodchips and other raw materials. Spends on reforestation, plantation development in non-productive forests, and the rehabilitation of other lands
		Fund for REDD+ in Indonesia (FREDDI) (in progress)	A "fund of funds", meaning that it is a fund that invests in other funds and is the trust fund for REDD+. The funds under FREDDI may be special-purpose vehicles or collective investment agreements. Presidential Regulation 62/2013 defines modalities. FREDDI is expected to mobilize up to US$20 billion by 2020
28	Jamaica	Forest Conservation Fund[1]	Established following an agreement signed in 2004 by the governments of Jamaica and the United States of America, The Nature Conservancy and the Jamaica Protected Areas Trust, according to which the Government of Jamaica will deposit US$16 million into the fund over 19 years

	Country	Name of fund	Brief description
29	Kenya	Forest Management and Conservation Fund	Income received is used in the management of public lands (including land purchases), research, tree nurseries, public participation in government forest policy activities, private forestry, community forestry, reforestation and afforestation management planning, and forest-related plan implementation
30	Lao People's Democratic Republic	Forest and Forest Resource Development Fund	Established in 2005 with income of US$1 916 932 in 2012–13. Receives income from national budget and other sources. Funds may be spent on a broad range of forest activities, including public education
31	Lesotho	Forest Fund	Receives all fees collected under the Forest Act, which may be spent on forest management and research, including assistance to private and community forestry
32	Madagascar	Fonds Forestier National	A special account under private management and directed by a management council with representatives of the state and local governments, non-governmental organizations, and operators
33	Malawi	Forest Development Management Fund	Receives income from multiple sources, which is spent on forest management, with an emphasis on local communities
34	Mali	Fonds d'Aménagement et de Protection des Forêts	Receives income for use in firefighting, reforestation and afforestation, and forest-related plan implementation
		Fonds d'Aménagement et de Protection de la Faune	Focuses on the conservation, development and protection of forest and fauna resources. The previous Fonds Forestier National was disbanded in 1993 due to the conditions imposed by the World Bank and the International Monetary Fund in addition to other challenges; in 2009, two new funds were set up. Discussions have been underway since 2007 to establish the Malian Carbon Fund
35	Malaysia	Forest development funds	Individual funds created in each state. They receive income from various sources and spend on state forest management and administration
36	Mauritania	Fonds National de Développement Forestier	Receives income from taxes and fees, which is spent on reforestation and forest protection
37	Morocco	Moroccan National Forest Fund	Capitalized through fixed shares of various taxes. Leverages funding for afforestation/reforestation on public, collective and private land, compensating the loss of user rights for local land users, and forest research activities
38	Mozambique	Forest and Wildlife Development Fund	Receives income from various sources and uses it to fund insect and disease control, firefighting, tree nurseries, private forestry, community forestry, reforestation and afforestation, and the economic development of forest communities
39	Nepal	User group funds	Participants in community forest programmes keep funds that receive income from forest activities, donations and government, which is to be spent on forest management and community development

	Country	Name of fund	Brief description
40	Nicaragua	National Forest Development Fund	The regulation for operation was approved in 2005. About 51 projects were approved from 2006 to 2012, with an investment of US$15 million. The funds have mainly been allocated to social projects and communities and only marginally to the private sector
41	Nigeria	Ecological Fund (*inactive*)	Established in 2009. The income received from government revenues is used for research, public education, tree nurseries, private forestry, community forestry, reforestation and afforestation, management planning, forest-related plan implementation, and the provision of environmental services
42	Niger	Fonds d'Aménagement Forestier	Used to support general forest administration, public education, tree nurseries, community forestry, reforestation and afforestation, forest-related implementation, and the promotion of forest-based manufacturing
		Fonds villageoise de Développement	
		Fonds au Contrôle Forestier	
43	Norway	Forest Trust Fund	Receives income from assessments on transfers of forest products. The funds collected must be used to benefit the forest from which the forest products originated
44	Peru	In progress	Proposals include enacting a "fees law" to levy a percentage of the income that local governments receive from forest use and allocate it to forest conservation projects; and establishing a fund similar to Brazil's Amazon Fund to channel funding from Germany, Norway and the United Kingdom through the National Forest Conservation Program, which is based in the Ministry of Environment
45	Philippines	Special Deposit Revolving Fund	Receives income from forest-related fees, which is spent on various forestry projects
		Tropical Forest Conservation Fund[1]	Established in 2002 and became active in 2005. Its aims to conserve, maintain or restore tropical forests
46	Rwanda	National Climate and Environment Fund of Rwanda[2]	Established in 2012 by law No. 16/2012 as a cross-sectoral financing mechanism. Its ultimate purpose is to spearhead resource mobilization from different sources so that it grows to meet the country's increasing environmental management needs. Sustainable forest management is supported under Window 1: Conservation and Sustainable Natural Resources Management
47	Senegal	Fonds Forestier National	Receives income from the sale of forest products from government forests plus other sources, which is spent on the protection and conservation of forestry, wildlife and fish resources, reforestation and the restoration of denuded lands in danger of erosion
48	Sierra Leone	Reforestation Fund	Income is spent on firefighting, tree nurseries, private forestry, community forestry, reforestation and afforestation, and forest-related plan implementation
49	Solomon Islands	Forest Trust (*inactive*) (The Protected Areas Act also provides for the Protected Area Trust Fund, which has not yet been established)	Receives income from multiple sources, including forest-related fines, licence fees and levies, which is spent on tree-planting and tending, reforestation and other purposes. The proposal to establish the Protected Area Trust Fund is being pursued though a Global Environment Facility project

	Country	Name of fund	Brief description
50	South Africa	National Forest Recreation and Access Fund	A specialized and quasi-independent fund dedicated to recreation, education, culture and spiritual fulfilment; it is notable for its public participation and transparency provisions
51	Sri Lanka	Forest Department Fund	A specialized fund devoted to law-enforcement activities, such as paying rewards and compensating forest officers injured in the line of duty
52	Sudan	National Reservation Fund	Supports management planning and forest-related plan implementation
		National Environment Fund	Supports the provision of environmental services
		Shelterbelt Fund	Supports community forestry and reforestation and afforestation
53	Trinidad and Tobago	Green Fund[2]	Created in 2000 with a levy of 0.1 percent on the gross sales and receipts of private companies operating in the country and is supposed to be *ad infinitum*. While the quarterly remittances into the fund began in March 2001, the fund became operational only in 2008. Envisaged as a major financing mechanism for programmes and for implementing the National Forest Policy 2011
54	Tunisia	Fund for Sylvo-Pastoral Development	Supports private and collective efforts to improve forests and pasture lands outside the state forest domain
55	Uganda	National Tree Fund (Community Tree Planting Programme)	Established in 2003. This fund receives money for establishing tree nurseries, the management of public land, private forestry, community forestry, reforestation and afforestation, and the economic development of forest communities
56	United Republic of Tanzania	Tanzania Forest Fund	A public conservation trust fund made operational in 2011. It was established as a mechanism to provide long-term, reliable and sustainable financial support for forest conservation and sustainable forest management
57	United Republic of Tanzania (Zanzibar)	Forestry Development Fund	The income received from various sources is used for a broad range of forest projects; the establishment of the fund requires the approval of Finance Ministry
58	United States of America	Knutson-Vandenberg Fund	Takes receipts from timber sales in national forests and allocates them to forest management and environmental projects in the forest to generate the income
		Reforestation Trust Fund	Uses income from tariffs on imported solid wood products to fund reforestation and stand improvement in public forests
		Rural Fire Disaster Fund	Assists subnational governments with forest firefighting
		Land and Water Conservation	Takes income from offshore oil and gas royalties and supports the purchase of public lands by national and subnational governments
		America the Beautiful Act	An example of an urban tree-planting fund administered by an independent non-governmental organization
		Woodland Incentive Program Fund (Maryland)	Taxes land transfers to support forest management by small landowners

	Country	Name of fund	Brief description
58	United States of America (continued)	Chesapeake Bay Trust (Maryland)	Uses income from donations and the sale of special automobile licence plates to support reforestation to improve water quality
		Forest Resource Trust (Oregon)	Supports private-land reforestation in return for a share of future forest income; also markets the resultant carbon sequestration
59	Uruguay	Forest Fund	Receives income from various sources, which is spent on loans to forest landowners and light industry, forestland purchases, and public forest management. Spending follows long-term plan
60	Vanuatu	Biodiversity Conservation Trust Fund (*inactive*)	Difficulties experienced in getting the fund off the ground and operating. There is now another proposal to establish a local conservation trust fund though a Global Environment Facility project
61	Viet Nam	Forest Regeneration Fund	Receives income from a fee charged on all harvests, which is spent on planting new forests, restoring damaged forests and managing and protecting existing forests
		Forest Development and Protection Fund	This fund was established in 2008 through Decree N05/2008/ND-CP. Its value in 2012 was US$55 million
62	Zambia	Forest Revenue Fund	Receives income from licences, fees and concessions
		Forest Development Fund	Promotes the wood-processing industry and afforestation and reforestation programmes in the forest sector
		Fund for Joint Forest Management	Supports local forest management efforts
63	Zimbabwe	Environment Fund (*inactive*)	Receives money from environmental levies, government and donor loans to support local authorities, environmental extension, research, training, technology transfer, the rehabilitation of degraded areas and the promotion of environmental awareness

Source: Originally listed by Lindsay and Rosenbaum, 2001. Updated with the best-available information and includes all known NFFs that had been established or were in the process of being created as of September 2014.

1 The funds in Bhutan, Jamaica and the Philippines are set up as part of debt-for-nature swap arrangements. These operate with more autonomy than traditional national forest funds in their governance and management.

2 The Green Fund in Trinidad and Tobago and Rwanda's National Climate and Environment Fund are mainly environment funds with significant forestry portfolios.

Annex 2
Indicative amounts of funds held or managed by national forest funds in some developing countries

Country	Fund name	Amount (US$ million)	Remarks
Argentina	Fondo Nacional para el Enriquecimeniento y la Conservacion de los Bosques Nativos	29	Fund should receive 0.3 percent of annual public budget. In 2014 it was supposed to receive about US$300 million but the actual amount deposited was about 9.5 percent of this
Bhutan	Bhutan Trust Fund for Environmental Conservation	48.63	Generating US$1.7 million per year on average to undertake conservation activities
Brazil	Amazon Fund for Forest Conservation and Climate Protection	1 033	Pledged contributions from Norway, Germany and Brazil (Petrobras)
	Fundo Nacional de Desenvolvimento Florestal	4	As of 2012 (US$162 000 own income)
Cameroon	Fonds Spécial de Développement Forestier	6.72	Revenue in 2013
Colombia	Fund for the Conservation of Tropical Forests	7.4	As of December 2012
Costa Rica	National Forest Financing Fund	88	Average annual disbursement of about US$4.5 million
Gabon	Fonds Forestier National	0.90	Average annual disbursement reported in 2013
Gambia	National Forestry Fund	0.35	As of 2013
Guinea	Fonds Forestier	0.26	Average annual disbursement reported in 2013
India	Compensatory Afforestation Fund	5 000	Principal plus interest
Indonesia	Reforestation Fund	5 800	As of 2009 (Barr *et al.*, 2010)
	FREDDI (in progress)	4 000	Expected capitalization (mainly through external funding)
Jamaica	Forest Conservation Fund	16	Following an agreement reached in 2004 with The Nature Conservancy and the Government of the United States of America, the Government of Jamaica will deposit US$16 million into the fund over a period of 19 years

Country	Fund name	Amount (US$ million)	Remarks
Lao People's Democratic Republic	Forest and Forest Resource Development Fund	1.92	Planned amount for use in 2013
Mali	Fonds d'Aménagement et de Protection des Forêts	0.84	Average annual disbursement reported in 2013
Malaysia	Forest Development Collection Fund	124	Revenue receipts, 2012
	Malaysia Timber Industry Development Fund	100	Amount approved from 1998 to 2013. For every 1 ringgit funded by the Malaysia Timber Industry Development Fund, 6 ringgit are additionally spent by state governments
Morocco	Moroccan National Forest Fund	55.5	Annual income in 2010
Mozambique	Forest and Wildlife Development Fund	5	Ministerial Decree No. 93/2005 regulating the distribution among local communities of the 20 percent of taxes collected from the use of forest and wildlife resources
Nicaragua	National Fund for Forestry Development	0.12	Average annual disbursement reported between 2006 and 2013
Nigeria	Ecological Fund	34	A one-time allocation in 2010–11
The Philippines	Tropical Forest Conservation Fund	8.2	Debt-for-nature swap sinking fund
Sierra Leone	Reforestation Fund	0.1	Average annual disbursement reported in 2013
Sudan	National Reservation Fund	0.03	Average annual disbursement reported in 2013
United Republic of Tanzania	Tanzania Forest Fund	2.8	Average annual disbursement reported in 2013
Trinidad and Tobago	Green Fund	404	As of 2011. Environmental fund with provisions for funding forestry
Viet Nam	Forest Development and Protection Fund	56	Revenue received in 2012

Source: Compiled from various sources, including the regional expert meetings on NFFs. In view of the difficulties in accessing finance-related information data (including currency conversions at various points of time), figures are at best indicative and may be considered to represent an overall trend.

Annex 3
Multiple funds operating in Brazil with forestry as one of their mandates

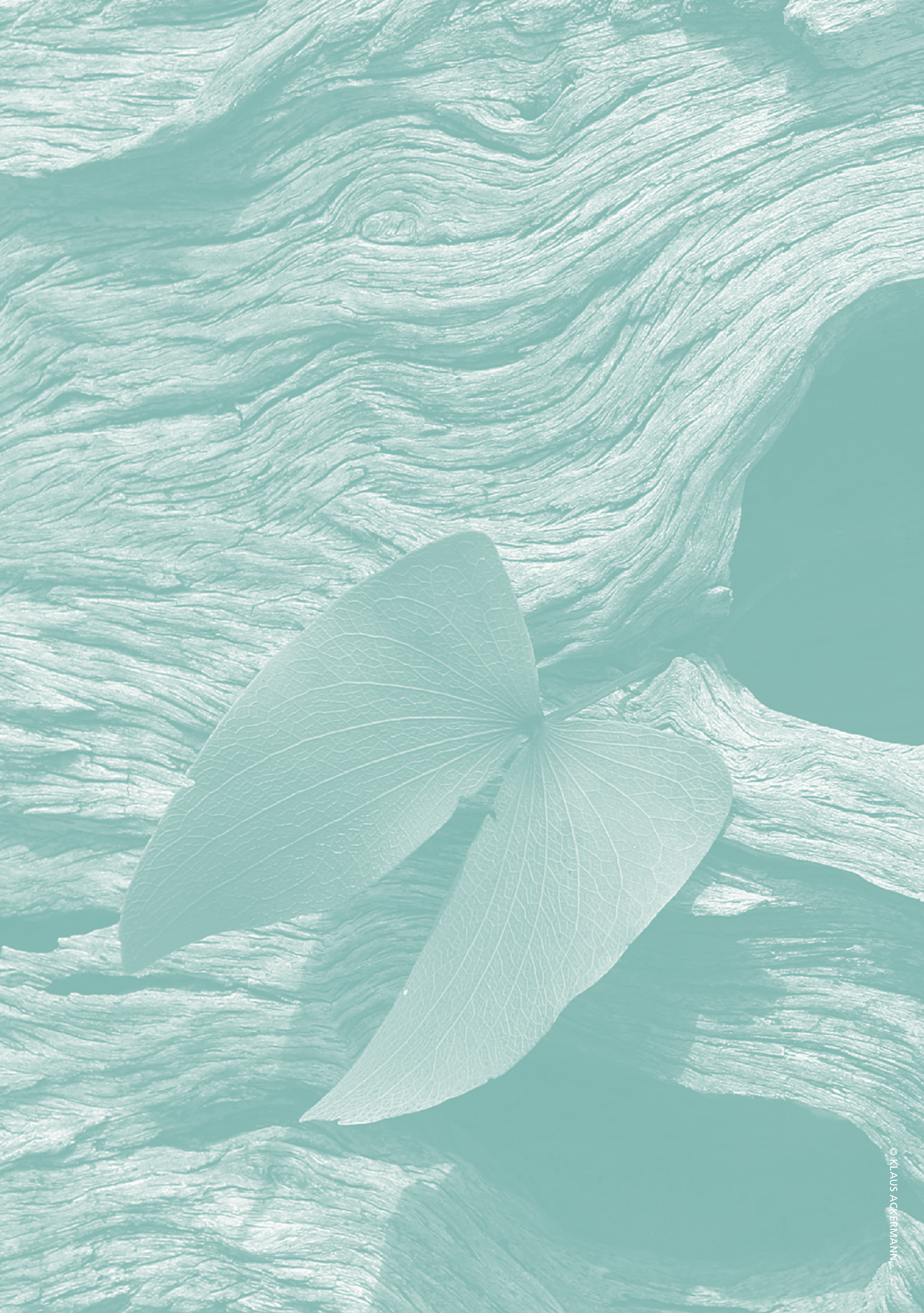
Funds	Sources of funding	Themes supported
National Environmental Fund (FNMA)/MMA-Act No. 7.797/1989	• Federal government budget • Environmental fees • Donations	• Conservation units • Research and development • Environmental education • Institutional development • Environmental control • Sustainable economic use of native flora, fauna and forest resources
National Fund for Forest Development (FNDF)/ Brazilian Forest Service/ MMA-No. 11.284/2006. Decree No. 7.167/2010	• Federal forest concessions • Federal government budget • Donations	• Research and development in forest management • Technical assistance and forest extension • Recovery of degraded lands • Forest management • Control and monitoring of forestry and deforestation • Environmental education • Conservation of natural resources
National Fund on Climate Change (FNMC)/MMA Act No. 12.014/2009	• Portion of oil royalties	• Mitigation and adaptation to climate change and its effects
Restoration Fund of Atlantic Forest Biome Act No. 11.428/2006	• None	• Conservation of remaining native vegetation • Scientific research • Forest restoration
Amazon Fund/BNDES Decree No. 7.6527/2008	• Donations due to the reduction of Brazilian Amazon deforestation	• Management of public forests and protected areas • Environmental control, monitoring and inspection • Sustainable use of forests • Ecological and economic zoning • Land regularization

Source: Adapted from Sotero and Azevedo-Ramos, 2013

Annex 4
Common legal forms for national forest funds

Legal form	Description
Account (as a separate account under an existing government budgetary provision)	A national forest fund (NFF) may exist in the form of a separate account managed by an existing governmental entity. Such NFFs are subject to the sole control of the relevant governmental entity. Usually, the account is established exclusively or jointly under the ministries or agencies responsible for forestry and/or finance, and the funds are held separately to those in the regular account of the ministry or agency. NFFs have no separate legal identity independent of the host governmental entity. In some cases, the controlling governmental entity has wide discretion to use the resources in these accounts however they see fit, perhaps only subject to certain restrictions posed by the relevant legislation
Trust fund	In some common law jurisdictions, NFFs are established as trust funds under the legislation and case law of the different jurisdictions. The initial establishment and the management and regulation of trust funds vary depending on the specific laws of the jurisdiction involved. The general notion of a trust fund is that the trustee will hold trust property "in trust" for beneficiaries. This means that the trustees hold legal title to the assets and the beneficiaries hold the equitable title. The trustees are entrusted with holding and managing the property placed under the trust. As such, the term "trust fund" may be used to refer to the legal entity created to hold the assets in trust. Some countries have also adopted laws that allow the creation of trusts
Foundation	NFFs often take the form of foundations in civil law jurisdictions that have not adopted the wholesale transplant of legislation to allow the creation of trust funds. Foundations have many similarities to trust funds and are said to have a large degree of overlap in their legal definitions. The exact definition of "foundation" varies according to the specific language of the legislation creating this type of legal entity. According to the European Foundation Centre (EFC, 2007), public-benefit "foundations" generally refer to independent, separately constituted not-for-profit bodies with their own established and reliable sources of income, usually but not exclusively from an endowment, and their own governing board. Foundations have independent legal personalities; a foundation holds assets as its own legal person, separate from the members of the foundation
Association	NFFs may be established via laws on associations in certain jurisdictions where other suitable entities, such as foundations and trust funds, do not exist. Organizations such as societies are sometimes the functional equivalent of associations, both types drawing strength from the collective number of their members. According to Spergel and Taieb (2008), the jurisdictions favouring the creation of associations are mostly francophone countries that achieved independence prior to the adoption of the French "Law on Associations"
Other possibilities	NFFs may be created as other organizational types for public benefit in jurisdictions that allow their creation, based on the country's existing legal framework; an example of this is 501(c)(3) tax-exempt not-for-profit organizations in the United States of America. NFFs may also be created by passing a statute to create a unique legal entity, which otherwise would not exist as a specific type of entity under the legal framework. Certain NFFs have been created via international agreements; these are usually bilateral agreements between donor and recipient countries that create an NFF as a channel for receive funding. Examples include: the Viet Nam Forest Protection and Development Fund, created via Decision No. 114/2008/QD-BNN; and the Tropical Forest Conservation Fund, which was created via a bilateral agreement between the United States of America and the Philippines

Source: Adapted from Li and Matta, 2013



Annex 5
Management structures of selected national forest funds

MANAGEMENT STRUCTURE OF THE TANZANIA FOREST FUND

According to Section 81(1) of the Forest Act, the Tanzania Forest Fund is managed by a board of trustees. The Minister for Natural Resources and Tourism appoints all trustees except the chairperson, who is appointed by the President. The board is assisted by full-time and part-time staff (the "Fund Secretariat") to ensure that operations are implemented. The Fund Secretariat is headed by an administrative secretary. The composition and procedures of the board of trustees are provided for in the Second Schedule of Forest Act No. 14 of 2002, as follows:

- the chairperson, who shall be of proven quality and integrity and who will have achieved high office or distinction within the country, and shall be appointed by the President;
- a senior representative from the ministry responsible for finance;
- a senior representative from the ministry responsible for forestry;
- a member from an institution concerned with training in forestry and allied matters;
- a qualified and registered accountant by a competent authority in the country;
- a person qualified in legal matters holding office in the Attorney General's chambers nominated by the Attorney General;
- a member from non-governmental organizations concerned with the conservation of the natural resources of Tanzania;
- one person representing local government; and
- a member of the forestry research institution.

No fewer than three of the trustees shall be women. Further, the trustees shall hold term for three years and, except where their membership is terminated for misconduct or other sufficient reason, shall be eligible to be reappointed for one further term. The board of trustees shall meet at least quarterly or call ad hoc meetings whenever deemed necessary.

Source: AFF, 2014

MANAGEMENT STRUCTURE OF THE BRAZILIAN FUND FOR FOREST DEVELOPMENT

To ensure transparency and the participation of civil society, as regulated by Decree 7167/201034, the Brazilian Fund for Forest Development (FNDF) has an advisory board composed of government and civil-society representatives, as follows:

Advisory Board of Brazilian Fund for Forest Development

Government

- Brazilian Forest Service
- Ministry of Environment
- Ministry of Agrarian Development
- Ministry of Science and Technology
- Ministry of Agriculture, Livestock and Supply
- Brazilian Association of State Environmental Entities
- National Association of Municipalities and Environment

Civil society

- Brazilian Micro and Small Business Support Service
- Brazilian Forum of NGOs and Social Movements for Environment and Development: social movements, environmental organizations and local communities are represented
- National Federation of Building and Wood Workers
- National Confederation of Industry
- National Confederation of Agricultural Workers

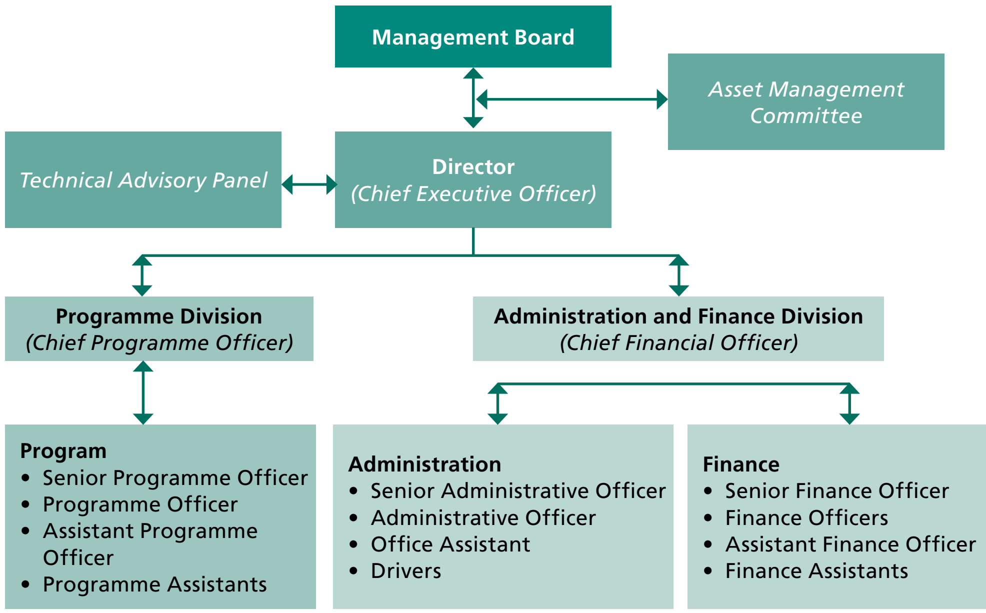
Source: Sotero and Azevedo-Ramos, 2013

MANAGEMENT STRUCTURE OF THE NATIONAL CLIMATE AND ENVIRONMENT FUND OF RWANDA

National Climate and Environment Fund of Rwanda Fund Managing Committee		
Permanent secretaries to the government • Chair – MINIRENA (Also acts as the chief fund manager) • MINECOFIN • MINAGRI • MIDIMAR • MININFRA • MINICOM • MINALOC • MINISANTE • MINEDUC	*Development partners* • Co-Chair – heads of all contributing development partners on a rotational basis	*Private sector/civil-society organizations* • Chief executive officer of the Private Sector Federation • Chief Executive Officer of the Rwanda Development Bank • Chairperson of the Rwanda Civil Society Platform

Source: FONERWA, 2012

ORGANIZATIONAL STRUCTURE OF THE BHUTAN TRUST FUND FOR ENVIRONMENTAL CONSERVATION



Source: CIFOR, 2013

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Annex 6
Required financial management capacities in a national forest fund hosting organization

Financial planning	• Contextualization of the national forest fund (NFF) financial strategy under the overall national forest policy/programme or financing strategy • Adequate budgetary planning, its timely updating, and making financial forecasts • Analysis and monitoring of actual and planned budgets and their comparisons on a regular basis to aid decision-making • Preparation of cash-flow statements and thorough analysis of cash requirements • Provision of financial information to those who need it as well as public information • Management of supply and markets, which indicates the integration of the organization in the value chain
Financial accountability	• Mechanisms to review financial policies and procedures on a regular basis • Presence of competent staff and board members who understand financial procedures and information • Contextualization of financial information in a strategic or business plan • Risk management, including mechanisms for quick redress in the event of a lapse
Financial monitoring	• Periodic financial reports and statements to support informed decision-making and good performance • Adequate bookkeeping system that can generate monitoring information • Preparation of balance sheets (assets and liabilities) and income and expense statements on a periodic basis • Management decisions reflecting the use of financial knowledge and information • Good overall financial portfolio and cash management and financial sustainability

Annex 7
Indicators of governance evaluation for environmental and forest funds

Indicator	Elements of quality
Public participation in creation/revision of fund rules	• Fund priorities and objectives established through a transparent and participatory process • Regulation of the fund and operational procedures established through a transparent and participatory process • Revision of fund objectives and rules integrate contributions from civil society
Clarity of rules for collection and distribution of resources	• Collection and distribution of funds based on rules that are clear and accessible to public • Procedures for application to fund are clear and accessible to public • Norms and criteria for evaluating proposals are clear and accessible to public • Fund employees send feedback on the evaluation of project proposals
Clarity in administrative responsibilities	• Law clearly defines the roles and responsibilities of the fund's management structure • Clarity regarding who is the authority for deciding project approval
Specific support for vulnerable groups	• Specific procedures for access to the fund by vulnerable groups • Technical support for vulnerable groups • Support for vulnerable groups in fulfilling norms and requirements • Access by vulnerable groups to the fund monitored
Forest and fund-raising expertise	• Fund employees have forest expertise • Employees consult specialists in evaluating proposals • Employees consult project proponents for clarification in evaluating proposals • Employees have expertise in obtaining funds
Administrative capacity	• Financial and human resources are sufficient for administering fund • Field monitoring team has access to information needed
Financial monitoring	• Financial report is available to public in various formats (printed, online, etc.) • Reports include all fund operations • Reports are generated in a regular fashion • Information contained in reports is clearly presented and easily understandable
Monitoring of impacts and effectiveness	• Monitoring of contributions of the fund to the established objectives • Monitoring of other social and environmental impacts • Monitoring mechanisms include consultations of interested parties • Efforts to correct the main problems identified by monitoring

Source: Thuault, Brito and Santos, 2011

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Towards effective national forest funds

Given increasing recognition of the role of forests in addressing global challenges such as climate change, food security and poverty alleviation, sustainable forest management is more important than ever. But financing it remains a major challenge.

Financing is about more than raising money. Broadening and diversifying the financial base for sustainable forest management involves, among other things, demonstrating the multiple benefits of forest investment; creating new revenue streams; establishing viable and lasting partnerships with other economic sectors; and strengthening the financial management capacity of forestry institutions.

National forest funds (NFFs) have gained international attention in recent years for their potential role in financing sustainable forest management. Despite the presence of NFFs in more than 50 countries, however, limited information is available on how NFFs work, the experiences gained from their operation, and the lessons learned.

Towards effective national forest funds addresses the need for more information on the way NFFs work and how best to establish and manage them. It shares the lessons that have emerged from the establishment and management of NFFs with the aim of supporting countries in designing and operating NFFs effectively according to their specific needs and circumstances. Based on a review of practical experiences, this publication outlines the general architecture and design elements of NFFs, as well as potential approaches and actions that could improve their performance.

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