Forestry Financing Working Paper 16

National Forest Funds (NFFs)

Towards a solid architecture and good financial governance

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

On behalf of
BMZ Federal Ministry for Economic Cooperation and Development

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ISBN 978-92-5-107865-5 (print)

E-ISBN 978-92-5-107866-2 (PDF)

Photo cover: FAO/F. Schmidt-Pramov

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Foreword

The recent forest financing study by the Advisory Group on Finance (AGF) of the Collaborative Partnership on Forests (CPF) noted increased interest among countries to establish and effectively manage national forest funds to support sustainable forest management. National forest funds, in their most basic form, are designed to set aside a portion of national revenues for forestry purposes and exist for more than a single government budget cycle. While in some cases they were established as part of the national forest programmes, in others they were constituted as windows under national environment funds. Despite their existence in more than 50 countries, and their increased importance in recent years, currently, there is little information on their use or on potential ways and means of improving their functioning. This working paper endeavours to address this gap.

It is the outcome of a joint initiative by the Food and Agriculture Organization of the United Nations (FAO) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ) and aims to improve our understanding of this institutional mechanism and of the frameworks within which they are established. After describing the key elements of national forest funds, it discusses a set of elements that serve as a starting point for developing a fund performance assessment methodology. Drawing on some practical experiences of countries operating national forest funds, it illustrates how different funds can be compared and evaluated.

In times of tight public budgets, there is a growing need to ensure that public investments are of "good value for money" and that international finance (e.g. ODA, climate finance) is translated into national action in the best way. This requires not only efficient and effective resource allocation and usage, but also having in place appropriate monitoring and evaluation tools and ensuring an overall robust financial architecture and good governance mechanisms.

We hope this publication will serve as a useful analytical contribution to this goal and to the ongoing international dialogue on improving forest financing for sustainable forest management.

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Abbreviations and acronyms

CATIE	Centro Agronómico Tropical de Investigación y Enseñanza
CC	Climate Change
EBF	Extra budgetary fund
ESC	Environmental Service Certificates
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FONAFIFO	Fondo Nacional de Financiamiento Forestal (Costa Rica)
GIZ	Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH
ICIMOD	International Centre for Integrated Mountain Development
IMF	International Monetary Fund
IRF	Indonesian Reforestation Fund
MRV	Measurement, reporting and verification
NFF	National Forest Fund
NGO	Non-governmental organisation
ODA	Official Development Assistance
ODI	Overseas Development Institute
PEIR	Public Expenditure and Institutional Review
PER	Public Expenditure Review
PES	Payment for Ecosystem Services
PROFOR	Programme on Forests
REDD	Reducing Emissions from Deforestation and Degradation
REDD+	Reducing emissions from deforestation, forest degradation, conservation, sustainable management of forests and enhancement of carbon stocks
SFM	Sustainable Forest Management
UN	United Nations
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	UN-REDD Programme
WB	World Bank
WRI	World Resources Institute

Executive Summary

In recent years, National Forest Funds (NFFs) have regained international attention as potential solutions to improve financial governance and the administration of funds in the forestry sector. NFFs are financing mechanisms solely dedicated to improving the conservation and sustainable use of forest resources. They are usually established in order to pursue forest related activities independent from traditional budgetary allocation restrictions and are typically endowed with funds from national budgets, ODA and dedicated multi- or bilateral funding streams (e.g., REDD+ funding).

If well-managed and administered, NFFs can be effective in meeting a number of challenges in the forest sector including: advancing long-term investment needs; supporting the decentralisation and devolution of forest management; leveraging additional sources of funding; encouraging private sector investments; promoting the production of forest ecosystem services; adapting forestry spending to the seasonality of operations (e.g. planting season); stimulating more effective forest management; and creating increased transparency and accountability.

NFFs can vary significantly both in their stated purpose and the way in which they operate. Indeed, an NFF can function either as a transfer fund or catalytic fund, or perform both functions simultaneously. While a transfer fund can be defined as a distribution platform for funding streams from donors to beneficiaries (mainly from public sources), a catalytic fund provides finance/support to overcome socio-economic obstacles/crises and to prepare future commercial development more and more independently from public sources.

Since the first development wave of NFFs began in the early 2000s, forest funds have often been criticised for their top-down approaches and lack of direct support to forest-dependent communities, indigenous people or small forest owners. Another problem identified, has been a lack of coordination between different financing streams resulting in missed opportunities to create synergies. It is vital that the next wave of NFFs establishes mechanisms of benefit sharing which integrate civil society, forest communities and indigenous people in decision-making processes and that share forest management authority and (partial) control over funds with forest-dependent people.

Designing an effective NFF requires due consideration of a number of key elements, which govern their use and administration, including: (i) Fund income sources/capitalisation; (ii) Fund organisation (governance structures and fiduciary management); (iii) Fund implementation (accessing and using funds); and (iv) Fund oversight (monitoring, reporting and verification of fund uses and performance). This working paper makes a detailed comparison between two long running NFFs - Fondo Nacional de Financiamiento Forestal (FONAFIFO) in Costa Rica and the Indonesian Reforestation Fund (IRF) – and illustrates some of the key success factors that determine effective and efficient forest funds.

The first consideration in the design of an NFF is the source(s) of income to the Fund or fund capitalization mechanisms. In general, these derive either from budgetary or extra budgetary sources. Budgetary sources comprise all funds allocated to an NFF on behalf of annual or cyclic national budgeting. By contrast, extra-budgetary sources have their own separate banking and institutional arrangements that are not included in the annual state (federal) budget law and the budgets of subnational levels of government. ODA disbursements can provide important extra budgetary capitalisation sources such as the roughly US$ 4.5 billion that have been committed to REDD+. The private sector is also another key potential source of income to NFFs. This may come in the form of tax payments and direct forest related revenues or private sector investments into the commercial forestry sector or forest related projects (e.g. REDD+ projects or conservation projects) that generate employment and purchasing power.

The second important aspect to bear in mind while designing NFFs is their organisation and management. There does not appear to be one specific model in this regard, with Funds varying considerably one from another. For example, NFFs can be under the control of a forest or finance ministry; have separate institutional structures; be administered independently by an institution; work as decentralised spending entities; or be a mechanism of coordinated spending on a national level. Good financial governance of all forest funds however, requires the establishment of effective governance architecture; sound principles of fiduciary management; and the development of effective monitoring systems.

Fund implementation is the third element to consider with NFFs. Again these vary quite significantly; they can either have very narrow or very broad windows for channelling their funds to uses and users. Highly specialised and dedicated NFFs provide targeted funds to focus groups or project types. Other NFFs with more general purposes offer access to their funds to a broader group of actors and topics. Access to funds by users is regulated according to eligibility and selection criteria, which are defined by the fund governing authorities. These regulations are usually based on public procurement procedures and tenders. Funds may apply a wide range of financing instruments in order to provide funding to beneficiaries. The basic fund design (transfer and catalytic) determines the conditions for accessing these funds. Thus, a transfer fund works rather with grants and subsidies, while catalytic funds apply loans, capital leveraging mechanisms and performance based instruments.

Oversight and monitoring of funds is the final element to consider in the design of an NFF. Public Expenditure Reviews (PERs) are vital tools in this regard, to trace and analyse the allocation, management and impact of public and private sources of funding for climate and other similar projects. The World Bank has developed a systematic approach for conducting a Public Expenditure and Institutional Review (PEIR) that can help in budgetary and performance management issues.

By systematizing and defining the assessment attributes for these four key elements in NFF design, this working paper hopes to serve as a starting point for the further development of a fund performance assessment system. An assessment of this kind would allow for a detailed comparison between the architecture of NFFs perceived as being highly functional and effective and those that are considered to be sub-performing. Such a comparison would be important in indicating gaps and options for improvements.

One way to generate a more comprehensive picture of existing funding mechanisms is to initiate an exchange of experience between countries. In January 2013, the Food and Agriculture Organization of the United Nations (FAO), Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH and Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), organized a workshop in Costa Rica for this very purpose, providing 12 countries with the opportunity to share best practices regarding the design and operational procedures of their experiences with managing NFFs.

This working paper concludes that there are two major challenges in the design of NFFs: effectiveness and efficiency. 'Efficiency' relates to a NFF's capability to provide administrative structures and control mechanisms that allow for transparent and smooth processes when sourcing funds and finally channelling them to beneficiaries. "Effectiveness", on the other hand, refers to a NFF`s ability to achieve its defined objectives.

1 National Forest Funds

1.1 Rationale

Awareness of the key role forests play in addressing global challenges, such as poverty alleviation and climate change, has increased considerably in recent times. And yet, this has not always translated into a more profound consideration of how to improve financing for the forest sector. One key challenge that must be addressed is the current lack of knowledge relating to how much countries actually invest in sustainable forest management (SFM), with only a few Public Expenditure Reviews developed to date or currently underway.

This is having serious ramifications on the potential to access financial resources for SFM, particularly considering that many countries' objectives for REDD+ and other policy priorities related to climate change mitigation and adaptation need to be integrated more fully into national budgeting processes. Planning for inputs like climate finance is only possible if the flows of conventional funds for forest related activities and the channels to allocate them are properly tracked and evaluated.

With ODA disbursements to the forest sector having increased by an average of 125% between the periods 2002 to 2004 and 2008 to 2010, largely due to REDD+ related financing (AGF-CPF, 2012), this is proving to be a missed opportunity. Currently around US$ 4.5 billion have been committed to REDD+ countries by leading international donors.

In recent years, National forest funds (NFFs) have regained international attention as potential solutions for various challenges related to the financial governance of national forestry sectors and the administration of funds.

NFFs can:

- **Help meet long-term investment needs.** Sustainable resource development requires long-term planning horizons. NFFs can shield the forestry sector against the fluctuations and unpredictability of national budgets. They can also insulate forest programmes from changing political winds and compensate for the traditional economic undervaluation of forests.
- **Function as tools for the decentralisation and devolution of forest management.** National funds can channel swift and timely assistance to sub-national governments and communities. Multiple local level funds, when established under a similar rubric, can act as an assured incentive and a stable base for community forestry and other local forest initiatives. They can promote wider

and more effective participation in forest management and decision-making processes and also help in shifting power to previously underrepresented groups.

- **Help leverage additional sources of funding.** Dedicated funding mechanisms could also be the tools of choice for financial/governance reform in the forest sector, and are likely to attract the positive attention of international partners (mainly of social and conservation investors). Carefully designed funds may attract more money to the forestry sector (leverage effect). They can also help to harmonise the work of multiple donors.
- **Serve as a means to encourage private sector investments.** In view of the flexibility they offer, the funds can be used as collateral and, where appropriate and necessary, for securitisation and to improve liquidity, thereby helping to tap private and other institutional investments.
- **Promote the production of forest ecosystem services.** Flexible and appropriately designed funds can help capture the value of these goods and services through payment mechanisms such as taxes or fees or through innovative systems of property rights. A fund can then compensate the value to the providers/enablers of these services. By effectively internalizing externalities the funds can thus better leverage market forces to encourage SFM.
- **Stimulate more effective forest management.** NFFs are an improvement on the present situation where budgetary processes dictate the spending of the funds within periodic cycles. This can result in inefficient spending to avoid forfeiting funding.
- **Create increased transparency and accountability.** NFFs involve relevant stakeholders from outside the government in their administration. They may require that spending follows specific plans and initiates independent auditing. This can strengthen forest institutions by increasing incentives to carry out their mandates more effectively and efficiently.

1.2 Definition and categories of NFFs

NFFs are financing mechanisms dedicated to supporting the conservation and sustainable use of forest resources. They are managed by public institutions, which retain and disburse funds for this sole purpose. Depending on the source of financing, NFFs can exist for more than a single government budget cycle. In some cases NFFs have been developed as part of broader national forest programmes (e.g., FONAFIFO in Costa Rica), while in others they have been developed as windows under national environment funds (e.g., the Indonesia Climate Change Trust Fund in Indonesia) (compare AGF-CPF, 2012).

Either way, NFFs can be characterised by their catalytic objectives, capitalisation sources and fund implementation procedures. A Fund's overall capital cycle can be designed as a transfer mechanism to distribute (performance based) environmental and social transfer payments. In such cases, grants are often provided with no financial returns for the fund. Catalytic funds aim to operate for a certain period of time, e.g. until the supported activities are self-financing or competitive on the respective target market. In such instances, initially a combination of grants and loans are provided, which aim to leverage private sector equity or commercial loans.

Accordingly, there are two basic types of NFF:

1. Transfer fund: essentially a distribution platform for funding streams from donors to beneficiaries (mainly public sources).
2. Catalytic fund: provides finance/support to overcome socio-economic obstacles/crises and to prepare future commercial development more and more independently from public sources.[1]

1 Example of a catalytic fund: As part of its strategic focus on addressing adverse climate change across the emerging markets, the International Finance Corporation (IFC) is proposing to invest in the establishment of an investment vehicle ("Climate Catalyst Fund"). This will mobilise additional capital for co-investment alongside IFC in private equity funds ("Climate Funds") focused on low-carbon and climate-friendly projects and companies globally across the emerging markets. The objective of the Climate Catalyst Fund is to stimulate the development of Climate Funds and climate friendly projects and companies which are expected to play a key role in accelerating the growth of investment in renewable energy and other low-carbon solutions.

Many NFFs combine transfer and catalytic fund objectives. However, the main features enable a rough categorisation of the NFF. Table 1 compares the typical NFF categories with the basic features of commercial investment funds that are fully investor committed, and aim to optimise returns at a given risk (private sources). This category is usually not a design chosen by NFFs.

1.3 Inventory of National Forest Funds

The first development wave of NFFs began in the early 2000s, with an impressive number of funds coming into operation especially in Sub-Saharan Africa. To date, one of the first and most comprehensive inventories of forest funds was undertaken in 2001 by Rosenbaum and Lindsay. The study listed 41 countries hosting about 75 forest fund mechanisms (see Annex). However, more than a decade later there has still been no global update of this inventory.

In Africa alone, the number of NFFs has increased considerably over the past decade, with newly established funds now in operation in Ghana, Mali and Tanzania (Gondo, 2012). For example in July 2011, Tanzania established a forest fund as part of the country's national forest financing strategy, which also provides for the establishment of the Tanzania Forest Service. In Mozambique, the Forest Law provides for the establishment of a National Forest and Wildlife Development Fund. However, this fund is not yet fully operational and most of the revenues from levies and concession fees are remitted to the Agriculture Fund, which then retains a percentage. Mali established two forest funds in 2004, namely the Forest Development and Protection Fund and the Fund for the Protection of Fauna. The forest fund was allocated US$ 0.8 million in 2009 and was earmarked to receive US$ 1.2 million in 2010. These funds help to ensure that revenues generated through the utilisation of forests and fauna respectively are reinvested back into forest and fauna management. Similar approaches have been developed and adopted in other West African countries (see also AGF-FCP, 2012).

1.4 Commonly perceived challenges in designing forest funds

Although NFFs were established to make forest financing easier, in many cases they do not appear to have fully succeeded in this task. This has been the case particularly with funds for community activities, which were to be held at decentralised levels of government. Another problem encountered, has been the difficulty with which local communities have found the development of appropriate project ideas to attract funding.

The development and incorporation of NFFs into national forest programmes and forest policy and legislation is seen as an effective option for addressing sector financing needs. This is a model followed predominantly by many African countries. The revenue for such funds could be derived from different sources, including government budgetary allocations, revenues generated from the sale of forest products and services, taxes, fees, fines and donations.

One of the central criticisms of existing forest funds is fuelled by the fact that the majority of large funds are reserved for the design, implementation and monitoring of (by now theoretical) REDD+ initiatives, as well as for climate change adaptation. Only very little finance is actually channelled towards enhancing the prerequisites of an efficient and effective forest fund, i.e.:

- Clearly defined property rights;
- Agricultural and forest tenure security;

- Considerable advances in anti-corruption and good governance;
- The establishment of capable, representative institutions; and
- The capacity building (both technical, financial and managerial) of national and local institutions to manage forest funds appropriately.

Most fund recipients are government agencies, meaning that little funding reaches forest-dependent communities, indigenous people or small forest owners. The distribution of the funds is thus mainly characterised by top-down approaches. It is striking that most NFFs are initiated and managed by the World Bank, United Nations Development Programme (UNDP) and bilateral agencies. Moreover, there is often a lack of coordination between funds and hence the opportunity to create synergies is often missed out on.

The resurgence of the forest funds topic should try to close gaps identified so far and take into account the lessons learned. Any new approach to design feasible forest funds should note the importance of the following:

- Establishment of mechanisms of benefit sharing;
- Integration of civil society, forest communities and indigenous people in decision-making processes (via participatory methods, consultations, etc.);
- Sharing forest management authority and (partial) control over funds with forest-dependent people.

2 Elements of NFFs

Current literature on NFFs list a set of key elements that together define the NFF design and mechanisms. These elements can be categorized as the following:

- Fund income sources/capitalisation;
- Fund organisation (governance structures and fiduciary management);
- Fund implementation (accessing and using funds); and
- Fund oversight (monitoring, reporting and verification of fund uses and performance).

Table 1: Comparison of elements for forest fund categories

Fund elements	NFF category		Comparison
	Transfer fund	Catalytic fund	Investment fund
Fund capitalisation	ODA, public funds/budget, public extra budgetary allocations	Blended capital sources Public/private	Private capital and public institutional investors
Fund organisation	Embedded in line ministries are associated entities; sometimes independently organised	Less dependency from ministries and state institutions	Professional independent commercial fund management
Fund implementation	Renewable fund feeding financing streams, distribution to beneficiaries (grants, subsidies, etc.). No return flow into fund; no return to fund contributors	Blend of transfer streams and investment cycles (grants and loans; input and output based project funding, etc.); partly returns/interests into fund and to fund investors	Funds are invested in defined projects by fund managers; investors receive return and interest
Fund oversight	Internally by board; externally by state auditing boards and independent auditors	Internally by board; externally by state auditing boards and independent auditors	Under oversight of fund managers/ boards and regular audits as foreseen by legislation

During the course of this paper, an overview is provided of these elements as they are currently discussed in literature. In the further course of this review, two long running NFFs are used to illustrate the key elements of forest funds: (1) Fondo Nacional de Financiamiento Forestal (FONAFIFO) in Costa Rica and (2) the Indonesian Reforestation Fund (IRF).

Whereas the FONAFIFO is widely perceived as being a "positive" example of a functioning NFF, the IRF has gone through periods of bad governance and mismanagement. Both examples enable a better understanding of NFF design and highlight critical aspects during NFF establishment and management (Table 2).

Table 2: NFFs in Costa Rica and Indonesia

FONAFIFO	IRF
The National Forestry Financing Fund (FONAFIFO) was legally constituted in 1996. FONAFIFO's general objective is to finance small and medium-sized producers, through loans or other mechanisms, to promote the management of forests, both intervened and natural forests. This is with a view towards encouraging forest plantation and reforestation processes, the establishment of forest nurseries and agroforestry systems, the rehabilitation of deforested areas, and also to benefit from technological advances in the use and industrialisation of forest resources. FONAFIFO also mobilises funds to pay for the environmental services provided by forests, forest plantations and other activities to strengthen the development of the natural resource sector. FONAFIFO's history dates back to the year 1990, with the promulgation of Forest Law No. 7174 and its Regulations, together with Executive Decree No. 19886-MIRENEM. Subsequently, the National Forestry Financing Fund was created in 1991 through Rule No. 32 of Law No. 7216 of the Ordinary and Extraordinary National Budget, and later FONAFIFO was established through Article 46 of Forest Law No. 7575.	Established in 1989, the Indonesian Reforestation Fund is a national forest fund financed by a volume-based levy paid by timber concessionaires. It was created with a stated mandate to support reforestation and the rehabilitation of degraded lands and forests. Mainly during both the Soeharto period, weak financial management and inefficient administration of revenues by government institutions at all levels undermined effective use of the Reforestation Fund. Major public investments in plantation development and rehabilitation of degraded forest lands have repeatedly fallen well short of their objectives. In the absence of effective mechanisms for oversight and accountability, large sums intended to fund development of plantations have been lost to fraud, diverted for other uses or wasted on poorly managed projects. Throughout the post-Soeharto reform era (2004-present), 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.

2.1 Fund capitalisation

Incomes of national forest funding mechanisms originate either from budgetary or extra budgetary sources.

Budgetary sources

Budgetary sources comprise all funds allocated to the NFF on behalf of annual or cyclic national budgeting. National budgets redistribute tax revenues and budget ODA to national sectors or directly to NFFs. Frequently, budgetary incomes for NFFs comprise direct revenues from the domestic production and trade of forest products and services (royalties, concession fees, National Park entry fees, carbon credit sales, penalties, etc.). Budgetary income sources comprise (see also Rosenbaum and Lindsay, 2001):

- General revenues;
- Income from government forests;
- Forest-related taxes;
- Fines, penalties, and seizures;

- Donations and grants;
- Fees and taxes not tied to forest commodities; and
- Bonds and loans.

Extra budgetary sources

Allen and Radev (2010) define extra budgetary funds (EBF) 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 subnational levels of government". Thereby, "extra budgetary" refers to transactions, accounts and entities. They often have their own governmental structures and legal status independent of government ministries. By this definition, extra budgetary funds are usually independently managed. The list below (according to Adelphi, 2012) highlights those EBF mechanisms with certain relevance to NFFs:

- Special funds: funds established for specified purposes and financed from special taxes or other earmarked revenues required usually by law, such as social security funds, health funds and road funds;
- Development funds: funds established to support development programmes usually involving donor contributions and sometimes internal sources (e.g., privatisation receipts), such as social funds, environmental funds and sectoral funds;
- Investment Funds: funds established with specific investment objectives and composed of stocks, bonds, property, precious metals or other financial assets, such as sovereign wealth funds;
- Counterpart funds: funds linked to inflows of donor aid (including in-kind) and managed under specific procedures, taking into account the requirements of the donors concerned;
- Revolving funds: funds that are replenished, usually through charges made for goods and services and on-lending operations and whose income remains available to finance its continuing operations, which would otherwise be jeopardised by budget rules that require budgetary appropriations to expire at the end of the year.

ODA disbursements can provide important extra budgetary capitalisation sources such as the roughly US$ 4.5 billion that have been committed to REDD+.[2] These bilateral commitments can either be directed towards (REDD+) countries directly or the funds can be allocated in multilateral basket funds, such as the Forest Carbon Partnership Facility (FCPF), Readiness Fund or UN-REDD. These funds are managed by international fiduciaries like World Bank, UN, etc.

Involving the private sector

The increase in climate related funding opportunities makes it important for countries to consider how to attract and leverage different types of climate change investment, including those from private sources. Public funds must be leveraged in strategic ways to attract new resources from the private sector. Recognizing this, governments pledged US$ 30 billion in "fast start" funding between 2010 and 2012 and aim to further contribute up to US$ 100 billion annually by 2020 for concrete mitigation actions by developing countries together with private sector sources. These pledges have been matched by an increase in public and private funds outside of the United Nations Framework Convention on Climate Change (UNFCCC) process, offering countries new resources to undertake climate change mitigation and adaptation actions.

2 See http://reddplusdatabase.org for regular updates of this figure.

There are significant non-commercial private financing sources, e.g. from industries or NGOs, dedicated to forest related purposes (forest livelihoods, conservation, biodiversity, etc.). Frequently, such payments are made for Ecosystem Services or for Corporate Social Responsibility purposes.

The commercial private sector could significantly contribute to generating finance for forests at the national level. On the one hand the private sector directly and indirectly contributes to NFFs through tax payments and direct forest related revenues. On the other hand private sector investments into the commercial forestry sector or forest related projects (e.g. REDD+ projects or conservation projects) generate employment and purchasing power that in turn constitute a key part of the strategy to combat deforestation and poverty.

However, an attractive business environment is crucial in motivating private sector engagement in forest financing. Such an environment comprises policy and regulatory conditions in which the interests of investors and industries are ensured in the long run. To this end, it is necessary that NFFs (see Rosenbaum and Lindsay, 2001):

- Use public-private partnerships where public contributions can mitigate potential risks for private investment and ensure that private capital is used in a socially and environmentally responsible manner;
- Ensure that loans and other financing instruments are provided, possibly through the use of intermediaries;
- Promote capacity development activities on how to reduce risks and transaction costs;
- Encourage financial institutions to provide forest owners and communities and private investors with appropriate lending tools; and
- Explore formal and informal financing opportunities such as micro finance and remittances, which could be channelled through forest owner organisations, cooperatives and producer groups.

Table 3: Fund capitalisation FONAFIFO vs. IRF

FONAFIFO	IRF
FONAFIFO's funding comes from the following sources: the ordinary National Budget, as stipulated in the Fiscal Simplification and Efficiency Law; forestry tax revenues; revenues of the Loan Contract between the World Bank and the Government of Costa Rica; and the financial contributions of the German Government, through the KfW Bank. At the local level, FONAFIFO also receives resources from water protection agreements signed with private companies. At present, FONAFIFO, through the Banco Nacional de Costa Rica (BNCR), manages four Trusts.	The IRF is a national forest fund financed by a volume-based levy paid by timber concessionaires. Before the establishment of the Fund, timber companies were required to post the bond based on the volume of logs harvested during a particular year. The government would refund the bond to the companies once it was confirmed that they had carried out enrichment planting in the areas they had logged. In 1989, the fund was restructured into a non-refundable levy. Over the past 20 years, the fund has had aggregate (nominal) receipts of approximately US$ 5.8 billion, making it the single largest source of government revenues from Indonesia's commercial forestry sector.
Blended capitalisation composed of public budget, extra budgetary sources (i.e. ODA and dedicated revenues) and private sector revenues from PES schemes.	**Capitalisation based on obligatory revenues (levies) from private sector.**

2.2 Fund organisation

NFFs vary in terms of organisation and management and do not follow a specific model. They can:

- Be under control of the forest or finance ministry;
- Have separate institutional structures;
- Be administered independently by an institution;
- Work as decentralised spending entities; or
- Be a mechanism of coordinated spending on a national level.

A study by the German Think Tank, Adelphi, has identified some key entry points for good financial governance of forest funds. While the focus of the study is on climate finance, the core elements recognised as crucial determinants of efficient and effective climate finance also apply in view of good financial fund management in more general terms. The key entry points as per this study are (Adelphi, 2012):

- Establishment of an effective governance architecture;
- Sound principles of fiduciary management; and
- Establishment of an effective monitoring system.

At the same time, the study recognises that few if any experiences have so far been made with national level fiduciary systems and the required control system. The development of such national level systems is being done in parallel to multi-lateral trusteeships (Adelphi, 2012).

- Key challenges of good financial governance include:
- The accurate estimation of costs and their inclusion in planning and budgeting on the national and local levels; and
- Formulation of monitoring frameworks to secure accountability.

The World Resources Institute (WRI) mentions three categories that determine the good governance of climate finance funding (Adelphi, 2012):

- **Power:** decision making structures and powers governing the relations between donors and partner countries, conditionality involved, role of the (local) civil society in shaping the mechanisms;
- **Responsibility:** a shared role in setting the agenda and shaping concrete programme activities of national level institutions in securing a high impact of programme measures; and
- **Accountability:** the effectiveness of regulatory mechanisms to shape processes and to make sure that they respect environmental and social safeguards.

The World Bank (WB) and UNDP promote systems that are very similar. They are based on the WB's Public Financial Management System, which is not climate specific, but generally recognised as being a valid orientation for the climate finance sector, too. Key elements of efficient fund management as identified by UNDP include:

- Establishment of efficient governance structures, which need to be based on national sectoral policies, involving a wide range of national stakeholders ensuring feedback is integrated back into the process;
- Securing a sound fiduciary fund management that fulfils the basic requirements as defined by the major funds. Such requirements may include the clear definition of roles to be played by the

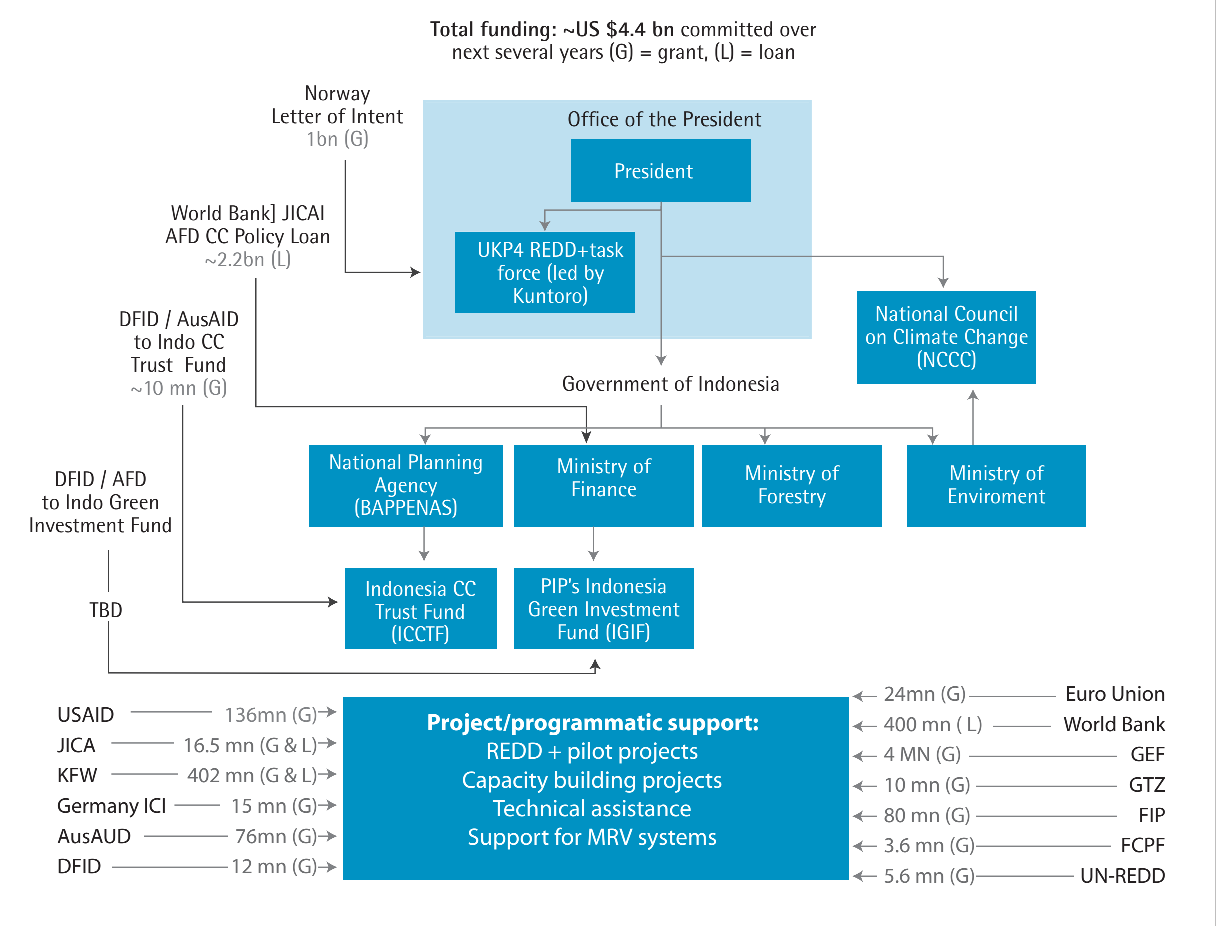
participating stakeholders and the secured access to all relevant information in case the fund's controlling is being secured by third parties/outsiders; and

- Setting up of an effective monitoring, reporting and verification (MRV) system with clear roles, the authority to set and amend rules and the clear definition of the mandate for an external controlling mechanism.

On the back of the increased global focus on climate change, the volume of ODA dedicated to forest related activities has increased over the past years. However, in many cases the highly professional international funding machinery with its huge volumes, encounters national level structures, which are frequently simply not capable of adequately absorbing, re-directing and efficiently employing the funds available.

The complexity of administering incoming funds of various sources is demonstrated by the case of Indonesia, where international contributions are either directly allocated to ministries and government entities or they are fed into funds, like the Indonesia CC Trust Fund. The figure below (by Brown and Peskett, 2011) depicts the variety of possible organisational mechanisms (Trust Fund, Investment Fund, Programme Support, Budget Support, etc.).

Figure 1: Example: Organising incoming funds in Indonesia



Source: Brown and Peskett, 2011

Table 4: Fund organisation FONAFIFO vs. IRF

FONAFIFO	IRF
FONAFIFO is a fully decentralised body within the organisational structure of the State Forest Administration. The Law 7575 grants it 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 is administered by a Governing Board, which is constituted by five members (two representatives from the private sector and three from the public sector); their appointment is for a two-year period. FONAFIFO's operation is carried out by an Executing Unit, which is constituted by an Executive Director and five Operating Departments: Environmental Services Department, Credit Department, Administrative Department, Legal Department and the Resource Management Department. FONAFIFO currently 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, who should aim them to achieve a licit and predetermined purpose, as it is set forth in the incorporation papers, for the benefit of a third party known as the beneficiary, who in this case shall be the small and medium forest producers.	In an effort to end the misuse of IRF funds, the Reforestation Fund would be placed under the administrative control of the Ministry of Finance. Throughout the post-Soeharto reform era, and especially during the Yudhoyono administrations (2004–present), the Government of Indonesia has taken steps to further improve transparency and accountability in 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. Between 2004 and 2008, the board conducted 29 audits related either directly or indirectly to the Reforestation Fund. In recent years, the Ministry of Forestry and the Ministry of Finance have jointly established two new institutional structures to oversee the administration and use of the central government's share of IRF revenues for this purpose. These include the creation of a Forest Development and a Forest Development Funding Agency Public Service Unit, which is mandated to administer the IRF as a 'revolving fund'. The establishment of these institutions has allowed the Ministry of Forestry to regain considerable authority over how fund will be administered and utilised.
Trust fund, hosted under the structures of the State Forestry Administration, but independently administered by a governing board.	**Revolving fund under administrative control of Ministry of Finance, regularly audited by national audit board.**

2.3 Fund implementation

NFFs vary significantly in that they can either have very narrow or very broad windows for channelling their funds to uses and users. Highly specialised and dedicated NFFs provide funds to specialised focus groups or project types. Other NFFs with more general purposes offer access to their funds to a broader group of actors and topics.

The scope of beneficiaries of NFFs is wide and ranges from government entities to civil society actors to private industries. Activities commonly supported by NFFs include:

- **Forest related government activities;** not further specified. In these cases, a subsequent decree, regulation, action of the parliament, or decision of the appropriate minister will ultimately determine the uses of the fund;
- **Specified forest related government activities;** e.g. to use the fund in the administration of the forest bureaucracy;
- **Public land management;** e.g. the fund might reserve a portion of the income from government concessions for reforestation or other management activities that do not immediately generate income;
- **Public land purchase;** the fund is used to buy lands on the market or through eminent domain (e.g. to purchase high conservation value areas and put them under conservation);
- **Activities in aid of forest-based industries;** e.g. promoting markets for local forest products (advertising, market research, or export assistance), providing capital and leveraging private sector investments (e.g. PPPs);

- **Capacity development;** forest research and public education efforts, including forest extension programmes;
- **General services to private forest landowners;** e.g. general support for afforestation and reforestation; fire, insect and disease suppression; government run forest nurseries, distribution of tree seeds;
- **Supporting decentralized forest financing structures;** e.g. overseeing and distributing funds to sub-national governments;
- **Direct payments to landowners or forest communities for non-commodity uses;**
- **Channelling finance to non-governmental organisations (NGOs);** these typically would be earmarked for the benefit of particular projects with which the NGO is involved (at the moment this is a typical approach for REDD+ pilot projects).

Access modalities under REDD+ and PES mechanisms

Access to funds by users is regulated according to eligibility and selection criteria, which are defined by the fund governing authorities. These regulations are usually based on public procurement procedures and tenders.

The manner in which national fund administering entities release funds to users can be regulated according to purpose oriented sets of eligibility and selection criteria; e.g. ICIMOD (International Centre for Integrated Mountain Development) (2012) provides an overview of fund distribution criteria for payment models to communities in REDD+ projects.

Generally, payments for REDD+ can be disbursed as an incentive to governments, communities, companies or individuals in developing countries for actions taken to reduce emissions from deforestation and forest degradation. Payments will most likely be made at the national level based on annual carbon reductions relative to a national forest emissions baseline.

In an *output based system*, registered forest managers have to verify the tonnes of carbon emissions they have reduced and/or tonnes of carbon they have sequestered to get paid. The verification of reductions or sequestration during a certain period of time (depending on the agreement, e.g. five years) will take place in comparison to baseline figures. In this model, payments are rendered on any increase on carbon stocks no matter how they have been achieved. The way in which forest managers achieve increased carbon sequestration or reduced emissions is therefore not predetermined and gives a broad scope of action. It is also advantageous that the output based payment systems are transparent in terms of the distribution of payments for ecosystem services between forest management units. However, it is challenging to monitor this system, e.g. when it comes to the accurate measurement of changes in carbon stock for each forest parcel.

Input or activity based systems are common in existing PES (payment for ecosystem services) schemes. Forest managers wishing to participate in these programmes have to apply. If they are accepted they are constrained to follow an established set of forest management rules. Participating forest managers obtain a predetermined payment per hectare of forest they bring under the agreement. Part of the payment may be made at the beginning whereas the remainder is paid after assessing the accomplishment of the established rules. The input based system has low monitoring and validation costs and a simple financial administration system. However, forest managers are obliged to follow rules laid down in the initial agreement. Thus, they have very limited management freedom in comparison with the output based system.

Financing instruments

Funds may apply a wide range of financing instruments in order to provide funding to beneficiaries. The basic fund design (transfer and catalytic) determines the conditions for accessing these funds. Thus, a transfer fund works rather with grants and subsidies, while catalytic funds apply loans, capital leveraging mechanisms and performance based instruments. Common financing instruments applied by funds are outlined in Table 5.

Table 5: Financing instruments of NFFs

Instruments	Description
Loans	Preferential loans that subsidise particular inputs or practices
Grants	Financial support to projects that serve the public interest, often provided by governments or non-for-profit organisations
Insurance	Insure certain production/performance risks of project developers or private investors
Loan Guarantees	Mitigation of political or credit risks in public or private sector loans
Public-Private Partnerships	Financial and policy support for targeted investments
Compensation payments	Payments for conservation efforts, tree planting, improved agricultural management, etc.
Direct Payments for products/services	Market transactions for e.g., GHG Emission Reductions and Removals, environmental services, social services, forest products

Table 6: Fund implementation FONAFIFO vs. IRF

FONAFIFO	IRF
FONAFIFO's general objective is to finance small and medium-sized producers, through loans or other mechanisms, to promote the management of forests, both intervened and natural forests, in order to encourage forest plantation and reforestation processes, the establishment of forest nurseries and agroforestry systems, the rehabilitation of deforested areas, and also to benefit from technological advances in the use and industrialisation of forest resources. FONAFIFO also mobilises funds to pay for the environmental services provided by forests, forest plantations and other activities to strengthen the development of the natural resources sector. *Environmental Service Certificates (ESC)* Any individual or company interested in investing in Environmental Service Certificates to protect one or more regions of interest. *Forestry credits* Loans are granted to companies and individuals engaging in forestry activities at competitive interest and conditions. *PES schemes* Land owners may register as providers of environmental services for consideration under the PES schemes.	The IRF was created with a mandate to support reforestation and the rehabilitation of degraded land and forests. However, problems have occurred because only a small percentage of the funds were actually spent on reforestation and forest rehabilitation. For 10 years beginning in 1990, the Ministry of Forestry allocated capital subsidies to plantation projects carried out wholly by state-owned forestry enterprises and by joint ventures between private and state-owned companies. Under Indonesia's regional autonomy process, a more equitable mechanism for sharing IRF revenues was introduced, with 40% being distributed among provincial and district governments and 60% administered by the national government. The local level entities may employ the funds for forestry and land rehabilitation specific activities. Currently the most important obstacles to efficient fund implementation are the lack of local level capacity to administer the finances and technical capacity gaps. The plan for the future is to further strengthen the role of the IRF as a financing instrument for the establishment of commercial plantations.
Direct beneficiaries are companies, individuals and communities. Access to the fund is based on transparent project proposals and registration processes.	**Direct fund beneficiaries are state institutions. They employ fund according to identified requirements.**

2.4 Fund oversight and monitoring

The Overseas Development Institute (ODI) has developed a methodology for UNDP to test and evaluate (climate) policy and related fund flows of major stakeholders in the sector. A key element of this comprehensive financial management system is a Public Expenditure Review (PER) that traces and analyses the allocation, management and impact of public and private sources of funding for climate and other similar projects.

A common representation of a PER is that it should present what was planned to be spent (the budget); what was actually spent (in terms of expenditures); what was achieved (outputs) and whether these achievements met policy objectives (outcomes), together with an assessment of the institutional mechanisms controlling expenditure and managing performance.

In a review of a series of PERs Bird *et al*. (2011) identify the major weak spots of public expenditure systems. These include:

- General weakness of the public finance administration to administer large funds;
- Insufficient accountability and control mechanisms of most public spending in the environment sector;
- Poor institutional capacities at all levels of the administration;
- Poorly defined roles and responsibilities of the institutions involved;
- A lack of public attention and awareness on the green sector; and
- ODA funding from various sources often overlaps, contradicts or competes with other forms of public (budgetary) funding (but attempts to better coordinate and harmonise these potentially contradicting flows of funding are showing first encouraging results).

Likewise, the World Bank has developed a systematic approach to conduct Public Expenditure Reviews (PERs). The following has been identified as important elements of an analytical framework appropriate for any PER-type analysis:[3]

- Generation of adequate national revenue in a reasonably non-distorting, equitable and sustainable manner;
- Fiscal deficits, if any, are sustainable and consistent with economic growth, inflation and other macro objectives;
- Identification of an appropriate public-private mix of goods and service provision in the economy after the rationale for public intervention market failure (efficiency) and redistribution (equity);
- Evaluation of public expenditure priorities – across and within functions – given the resource constraint and distributional objectives;
- Examination of the link between expenditure inputs and outcomes (such an analysis does not necessarily have to be based on complex statistical techniques; good anecdotal evidence could work well where data are poor and/or insufficient); and
- Focus on the public sector institutional arrangements (including the political incentives) with suggestions to reform incentives and institutions that are needed to improve the efficiency of public spending.

3 See the World Bank's PER website: http://go.worldbank.org/2NYPVF0QT0.

Together, the two compilations provide a good checklist for the budgetary and performance management issues that need to be addressed under a proposed Public Expenditure and Institutional Review (PEIR).

In light of the above, PROFOR has developed a Toolkit for Forest Sector Public Expenditure Reviews. PROFOR reviewed 61 country PERs and found that only 14 focused to some degree on forestry. Of these, 11 were part of an FAO programme of sustainable forest development, where the principal focus was on aspects of forest revenue, with only limited analysis of sector expenditures. (Fowler *et al*. 2011)

Table 7: Fund oversight FONAFIFO vs. IRF

FONAFIFO	IRF
Costa Rica conducts audits of FONAFIFO. This activity is mainly done by external organisations (i.e. licensed foresters, the national conservation area system (SINAC), or NGOs) which are contracted for the work. Since FONAFIFO receives significant ODA funds, the respective auditing procedures of the bilateral agreements apply.	Throughout the post-Soeharto reform era (2004-present), the Government of Indonesia took 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) has been 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 each of these on its website (www.bpk.go.id).
Contracting of external auditors and auditing procedures of ODA partners	**Regular oversight and audits by state auditing board**

3 An approach for assessing NFFs

This working paper proposes assessment criteria, for objective and comparable descriptions of NFFs that could help evaluators assess NFFs. Having described the critical elements of NFFs in Section 2 and provided examples from existing forest funds, we now try to systematize the key elements and define assessment attributes that may serve as a useful starting point for developing a detailed fund performance assessment system.

Depending on the purpose and income sources of an NFF, the selection and design of its constituting elements vary.

NFFs can be categorized according to the key elements described in the table below.

Table 8: Fund typology according to constituting elements

Fund elements	Type 3	Type 2	Type 1
Fund capitalization	Blended (public and private) sources of fund income.	Several sources of income (either public or private).	One income source.
Fund organisation	Independent organization outside state structures.	Own organization within state structures.	Directly integrated in existing state structures (e.g. ministry).
Fund implementation	Wide scope of beneficiaries.	Narrow scope of beneficiaries.	Only one type of beneficiary.
Fund oversight	State oversight and independent external auditors.	External state oversight.	Only fund internal oversight.

The principle aim of the above categorization of NFFs is not to judge a fund`s functionality or effectiveness. Rather, it is to describe the fund's coverage and key elements and to make NFFs comparable against each other. Thus, the proposed categorization is an absolute and neutral scaling (with no ranking system), which provides a comparable description of the respective evaluation criterion. Accordingly, we labelled these as "types".

Once the fund architecture has been described, it can be compared to the architecture of other NFFs. Hence, the architecture of a fund perceived as being highly functional and effective can be compared to the architecture of a sub-performing NFF. The comparison may indicate gaps and options for improvements. Examples of such comparative evaluations are given in Tables 9 and 11.

Table 9: NFF assessment for Costa Rica and Indonesia

Fund element	Description FONAFIFO	Type	Description IRF	Type
Capitalization	Blended capitalization composed of public budget, extra budgetary sources (i.e. ODA and dedicated revenues) and private sector revenues from PES schemes.	3	Capitalization based on regular revenues (levies) from private sector.	1
Organisation	Trust fund, hosted under the structures of the State Forestry Administration, but independently administered by a governing board.	2	Revolving fund under administrative control of Ministry of Finance, regularly audited by national audit board.	2
Implementation	Direct beneficiaries are companies, individuals and communities. Access to the fund is based on transparent project proposals and registration process.	2	Direct fund beneficiaries are state institutions. They employ fund according to identified requirements.	1
Oversight	Contracting of external auditors and auditing procedures of ODA partners.	3	Regular oversight and audits by state auditing board.	2

4 Experiences from existing funds and forest financing mechanisms

4.1 Workshop on National Forest Funds

From 28th to 30th of January 2013, FAO, GIZ and CATIE organized a joint workshop on National Forest Funds at CATIE's Campus in Turrialba, Costa Rica. The workshop aimed to initiate the exchange of experiences between countries' forest financing mechanisms. During the workshop, participants from 12 countries presented their respective fund structures and financing mechanisms. Furthermore, the participants contributed to two working group sessions that aimed at generating a more comprehensive picture of the existing mechanisms and providing an overview of best practices regarding these mechanisms' design and operational procedures.

Although titled "Workshop on National Forest Funds", the present financing schemes provided an array of mechanisms of which not all of them meet the basic definition criteria of a forest fund as outlined in chapter 3.

The following table provides an overview and a basic description of the financing mechanisms presented during the expert meeting.

Table 10: National Forest Financing Mechanisms

Country	Financing mechanism	Description
Argentina	Ley N° 26.331 de Presupuestos Mínimos de Protección Ambiental de los Bosques Nativos de la República Argentina	This law provides funds (Presupuestos Mínimos de Protección Ambiental de los Bosques Nativos) - administered by the Argentinian forest administration (Dirección de Bosques) - to foster national policies and programmes for protection, conservation, recuperation and sustainable utilization of natural forests. The policies and programmes are embedded in a consultative mechanism with the provincial governments and entities, representatives of the forest sector and include the participation of forest-dependent communities.
Chile	Fondo para la recuperación y Manejo Sustentable del Bosque Nativo	Benefits regeneration, recuperation and protection activities of natural forests or silvicultural activities aiming at the production of NTFP or silvicultural management and recuperation activities of natural forests for timber production.
Colombia	Cuenta del Acuerdo para la Conservación de Bosques: FCA Colombia	An agreement was signed in 2004 by the USA and Colombia, as well as the Nature Conservancy (TNC), Conservation International (CI) and the World Wildlife Fund (WWF). Its principal objective is the promotion of conservation, protection, restoration and sustainable use of tropical forests on Colombian territory. Funding comes from debt for nature swaps (Canje de Deuda por Naturaleza). This investment option is to help countries with important extensions of tropical forests to reduce their debts by protecting their forests.

Table 10: National Forest Financing Mechanisms

Country	Financing mechanism	Description
Costa Rica	Programa de Incentivos Forestales: de FONAFIFO	The objectives of FONAFIFO are twofold: 1) Provide funding for small and medium producers through credits or other mechanisms for forest management activities such as afforestation, reforestation, tree nurseries, agroforestry systems, recuperation of degraded areas and technological changes to use and industrialize forest resources. 2) Gather financing for the Payment of Ecosystem Services (PES), and other activities as an incentive to support the forest habitat conservation and regeneration as well as reforestation activities.
Guatemala	Programa de Incentivos Forestales: PINFOR	PINFOR promotes SFM and sustainable production of natural resources. The programme incentivises the maintenance, management, protection and A/R activities of forests in order to generate econsystem services. Beneficiaries are forest owners of at least 2 ha and other people or companies with titles.
Guatemala	Programa de incentivos forestales para poseedores de pequeñas extensiones de tierra de vocación forestal o agroforestal: PINPEP	PINPEP benefits small forest users who manage forest sizes of 0.1 to 15 ha without a title. The programme's objective is to 1) give small forest users participation in benefitting from incentives, 2) incorporate the modality of agroforestry systems, 3) foster gender equality, 4) generate employment in rural areas, and 5) foster forest biodiversity.
Guatemala	ECONEGOCIOS (ECOBusiness)	The private company ECONEGOCIOS Occidente provides funding in the biomass, rubber and carbon sectors. Their financial products are aimed at 1) concessionaires in the "Reserva de la Biosfera Maya", 2) fostering the utilization of private forest plantations, 3) incentivizing investment in plantations, 4) enhancing the overall investment in the forest industry, and 5) promoting investment in private rubber plantations.
Nicaragua	Fondo Nacional de Desarrollo Forestal (FONADEFO)	The fund FONADEFO is an administrative and financial organ, which is integrated in the national forest institute (Instituto Nacional Forestal - INAFOR). The fund is fed by private and public financing, national and international donations, agreed amounts of national and international agreements and special credit lines. FONADEFO provides total or partial financing of programmes and projects in the forest sector which promote sustainable forest management and overall sustainable natural resource management, the conservation of natural resources, the development of PES-schemes, and the enhancement of the environment.
Peru	Iniciativa de Financiamiento para la Conservación de Bosques para la Mitigación del Cambio Climático en el Perú	The fund supports conservation conventions and agreements such as 1) projects with international cooperation for forest conservation, 2) direct, conditioned transfers paid annually depending on the amount of ha of conserved forest, 3) initiatives and programs REDD+, 4) programs and projects of public investment (SNIP).
Trinidad & Tobago	The Green Fund	National Environmental Fund. First established under the Finance Act 2000. Capitalized by a 0.1% Green Fund Levy on gross sales or receipts of all companies carrying on business in the country. Activities that relate to: Remediation, Reforestation, Conservation of the Environment. Access by non-profit organizations, non-governmental organizations and community groups.
Indonesia	FREDDI (Financing REDD+ in Indonesia)	The Trust Fund for REDD+ in Indonesia, FREDDI, is a fund that invests in other funds. It is being established using Presidential Regulation No. 80/2011 on Trust Fund as a public trust fund. The funds underneath FREDDI, the subsidiary funds, can be special-purpose vehicle for companies, fund managers, or collective investment agreements. Focus on the "grant-making" modality.
Lebanon	National Forest Fund	Account within the government's budget, allocated primarily to the ministry of agriculture. Forest law 1949, article 98: Fines for violations of forest law and all agricultural laws are paid to the Treasury Fund in the name of the Ministry of Agriculture and are to be used only for afforestation. These subsidiary funds can form joint ventures with other funds or other companies, among others, to use it as disbursement vehicles and as leverage to mobilize other funds.
Turkey	Turkey National Forest Fund	Expenditures for forestry organization in Turkey are met by the allocations partly from its own revenues and state budget. There are two related funds: 1-The Ministry Fund is paid to the Forest Villages Development Fund; 2-Afforestation Fund is distributed according to the paragraph (g) of 9th Article of the National Afforestation and Erosion Control Mobilization Law.
Morocco	Moroccan National Forest Fund	"Dahir" Sept 12th 1949: institutionalization of the Moroccan NFF: Capitalization through fixed shares from various taxes. Leverage funding for Afforestation/Reforestation on public, collective and private lands. Compensating the loss of use-rights for local land-users (securing the success of A/R projects) => Compensation mechanism. Financing forest research activities.

4.2 Typology of existing financing mechanisms

This working paper suggests a characterization approach (Table 8 in Chapter 3), which aims to systematically describe the four major forest fund constituting elements - capitalization, organization, implementation and oversight. Table 11 below, presents the application of this approach for the 14 forest financing mechanisms (see Table 10) presented at the Costa Rica NFF workshop.

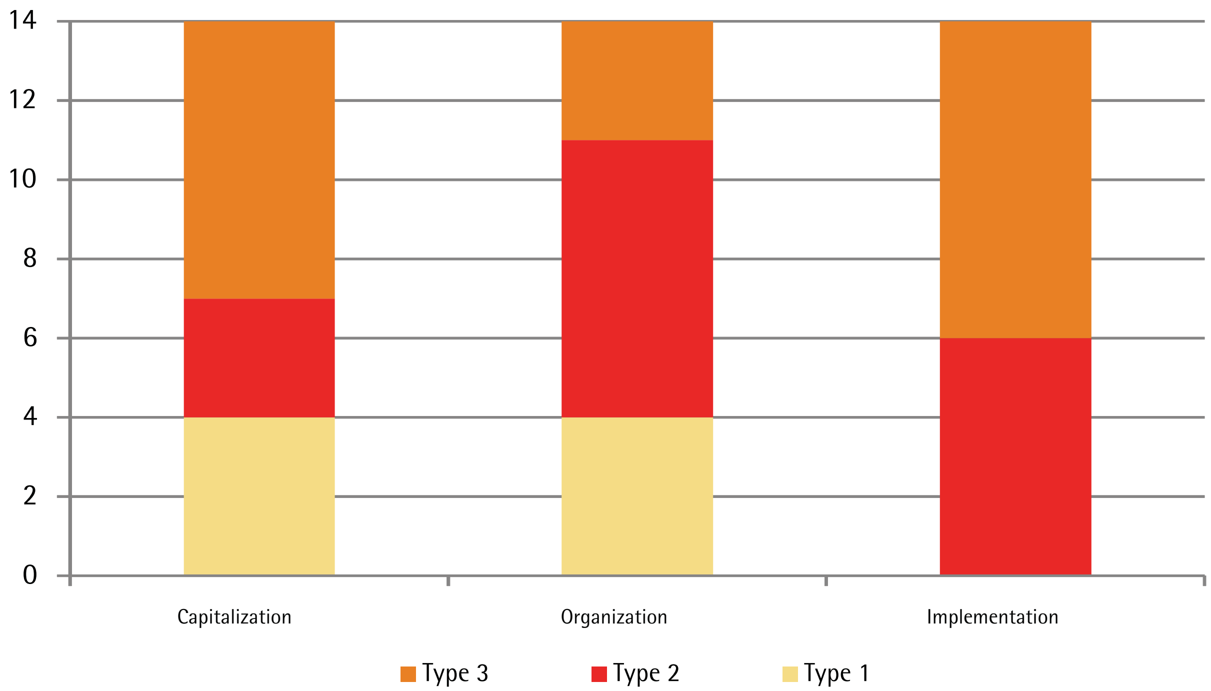
Table 11: Typology of financing mechanisms

Country	Financing mechanism	Capitalization type	Organization type	Implementation type
Argentina	Presupuestos Mínimos de Protección Ambiental de los Bosques Nativos de la República Argentina	1	2	2
Chile	Fondo para la recuperación y Manejo Sustentable del Bosque Nativo	3	3	2
Colombia	Cuenta del Acuerdo para la Conservación de Bosques: FCA Colombia	3	3	2
Costa Rica	Programa de Incentivos Forestales: PINFOR	3	2	3
Guatemala	Programa de Incentivos Forestales: PINFOR	1	2	3
Guatemala	Programa de incentivos forestales para poseedores de pequeñas extensiones de tierra de vocación forestal o agroforestal: PINPEP	1	2	2
Guatemala	ECONEGOCIOS	3	3	2
Nicaragua	Fondo Nacional de Desarrollo Forestal (FONADEFO)	3	1	3
Peru	Iniciativa de Financiamiento para la Conservación de Bosques para la Mitigación del Cambio Climático en el Perú	3	1	3
Trinidad & Tobago	The Green Fund	1	2	2
Indonesia	FREDDI (Financing REDD+ in Indonesia)	3	2	3
Lebanon	National Forest Fund	2	1	3
Turkey	Turkey National Forest Fund	2	2	3
Morocco	Moroccan National Forest Fund	2	1	3

The typologies were confirmed by representatives of the workshop. Only for the fund element "oversight" it was not possible to obtain reliable information to classify the individual financing mechanisms. Thus, in the following table the classification for this element is not presented.

A basic analysis of the information (Figure 2) shows that over all catalytic fund elements / structures for capitalization and implementation are wider spread than mere transfer mechanisms. For fund organization, semi-independent structures are preferred. The funds are mainly designed to support a wider array of beneficiaries.

Figure 2: Analysis of 14 forest financing schemes



Source: UNIQUE based on information provided by representatives of forest financing schemes at NFF Workshop Costa Rica January 2013.

5 Key factors: effectiveness and efficiency

In times of tight public budgets, there is a growing trend to make sure that public investments (like ODA) are "good value for money". This requires appropriate monitoring and evaluation tools that measure not only inputs and outputs, but also the outcomes and impacts of funds allocated and used to promote the forest sector. Hence, there are two major challenges for the design of NFFs: effectiveness and efficiency. Thereby, "efficiency" relates to a NFF's capability to provide administrative structures and control mechanisms that allow for transparent and smooth processes when sourcing funds and finally channelling them to beneficiaries. "Effectiveness" refers to a NFF`s ability to achieve its defined objectives.

Effectiveness

The effectiveness of financing mechanisms is basically defined by the elements "capitalization" and "implementation". It can be addressed through smart fund capitalization and implementation, attracting additional sources and improving leverage. Pending challenges in this field are to:

- Identify areas of leverage to attract additional private capital.
- Move the forest sector from a receiver of subsidies towards a contributor to national development.
- Assess what makes forest finance effective by implementing evaluation systems.
- Make beneficiaries part of the process and reduce entry barriers.
- Define what tools, methods or systems might improve the effectiveness of forest finance.

Efficiency

Efficiency of a forest financing scheme is defined by the elements "organization" and "oversight". It can be addressed by designing adequate fund organization and establishing fund oversight structures. This field comprises key issues to be resolved, such as:

- Setting standards of good financial governance and defining basic accountability C&Is.
- Qualified assessments of financial requirements.
- Formulation of minimum capacities and governance criteria for managing large funds.
- Reconciling national administrative procedures and management practices of international organizations.

In any case, sound and efficient fund design correlates with significant transaction costs (e.g. due diligence before funds are released to beneficiaries, checks and balances, audits of the fund itself, etc.). Thus, the impacts achieved by the fund must outweigh the costs and efforts in its design and management.

6 Annexes

Annex 1: References

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Annex 2: List of NFFs

List of countries with national forest funds, as reviewed in Rosenbaum and Lindsay (2001)		
Albania	Fund of the Directory General of Forest and Pasture	Reserves a percentage of revenues from government forests to support forest-related activities.
Bolivia	National Fund for Forest Development (FONDOBOSQUE)	Reserves revenues from multiple sources for forest projects.
Brazil	Reforestation fund Carajás Forest Fund	Private regional fund that assesses fees on pig iron manufacturers (industrial charcoal users) to fund creation of plantations to sustainably produce charcoal.
Bulgaria	Concessions Cost Recovery Fund	Reserves a portion of the income from concessions to cover administration costs.
Burkina Faso	Fonds forestier	Holds donations and other income for use on forest, wildlife, and fishery projects.
Cameroon	Fonds Spécial de Développement Forestier	Formerly took money from multiple sources; now apparently takes money from annual budget allotment to use for forest purposes.
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 Renewal BC (British Columbia)	Quasi-public provincial entity that receives a portion of forest royalties from Crown lands and spends on environmental, economic, and social projects related to forests.
Congo (Brazzaville)	Fonds d'aménagement et des ressoures naturelles	Receives income from multiple sources; finances work in forestry, wildlife, and aquaculture.
Costa Rica	Forest Fund	Receives income from multiple sources; spends on forest administration and other activities promoting sustainable forest development.
	National Forest Financing Fund (FONAFIFO)	Focusing on small and mid-sized landowners, the fund takes income from various sources including a hydrocarbon tax. Can reimburse forest owners for provision of environmental services.
Croatia	Simple biological reproduction account	Collects a portion of income from timber sales plus the proceeds of a general tax on industry (representing value of environmental services) for financing reforestation.
Cuba	National Fund for Forest Development (FONADEF)	Promotes activities to conserve and develop forest resources, particularly inventories, management, protection, and research.

Cyprus	Communal forest funds	Individual funds for each communal forest receive income from forest produce to finance forest management.
Dominican Republic	Special Fund	Receives income from multiple sources, including the sale of special postal stamps; spends on conservation of forest resources, reforestation and agroforestry, fire and disease prevention, and extension work.
	Forest Trust Fund	Receives income from donations and from compensation for environmental services; spends on sustainable forest development in priority areas.
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.
Gambia	National Forestry Fund	Receives income from multiple sources for protection, development, and sustainable use of forests and promotion of community forestry.
Guatemala	Special Forest Fund	With income from multiple sources, the fund is spent on forest development, industrial forestry, management of natural forests, agroforestry, watershed restoration, reforestation, research, agroforestry education, and other purposes.
Guinea	Fonds Forestier	A general forest development fund tapping several forest-related income sources.
Indonesia	Reforestation Fund	Gets income from a tax on logs, chips, and other raw materials; spends on reforestation, plantation development in non-productive forests, and rehabilitation of other lands.
Laos	Forest and Forest Resource Development Fund	Receives income from national budget and other sources; may be spent on a broad range of forest activities, including public education.
Lesotho	Forest Fund	Receives all fees collected under the Forest Act; may be spent on forest management and research, including assistance to private and community forests.
Lithuania	Forest Fund	Receives income from state forests plus forest-related fines and penalties; spends on state forest management and administration.
Madagascar	Fonds Forestier National	A special account under private management.
Malawi	Forest Development and Management Fund	Receives income from multiple sources; spends on forest management with emphasis on working with local communities.

Malaysia	Forest Development Funds	Individual funds created in each state. Receive income from various sources and spend on state forest management and administration.
Mauritania	Fonds National de Développement Forestier	Receives income from taxes and fees and spends on reforestation and forest protection.
Mozambique	Forest and Wildlife Development Fund	No specifics given in statute.
Nepal	User group funds	Participants in community forest programs keep funds that receive income from forest activities, donations, and government support; to be spent on forest management and community development.
Norway	Forest Trust Fund	Receives income from assessments on transfers of forest products. The money collected must be used to benefit the forest from which the forest products originated.
Philippines	Special Deposit Revolving Fund	Receives income from forest-related fees; spends on various forestry projects.
Senegal	Fonds forestier national	Receives income from sales of forest products from government forests, plus other sources; spends on government forest projects and on support to private and community forestry.
Solomon Islands	Forest Trust	Receives income from multiple sources including forestrelated fines, license fees, and levies; spends on tree planting and tending, reforestation, and other purposes.
South Africa	National Forest Recreation and Access Trust	Specialised fund dedicated to recreation; notable for public participation and transparency provisions.
Sri Lanka	Forest Department Fund	Specialised fund devoted to law enforcement activities such as paying rewards and compensating forest officers injured in the line of duty.
Tanzania	Tanzania Forest Fund	As proposed in draft law, the fund would be a semiindependent trust, getting income from various sources and spending on forest development, including education, research, and community forestry.
Tanzania (Zanzibar)	Forestry Development Fund	Income from various sources to be used for a broad range of forest projects; fund establishment requires approval of Finance Ministry.
Tunisia	[fund for sylvo-pastoral development]	Supports private and collective efforts to improve forests and pasture lands outside of the State's forest domain.

United States	Knutson-Vandenberg Fund	Takes receipts from timber sales on national forests and dedicates them to forest management and environmental projects in the forest generating the income.
	Reforestation Trust Fund	Takes income from tariffs on imported solid wood products to fund reforestation and stand improvement on public forests.
	Rural Fire Disaster Fund	Assists sub-national governments with forest fire fighting.
	Land and Water Conservation Fund	Takes income from offshore oil and gas royalties and supports purchase of public lands by national and subnational governments.
	America the Beautiful Act	Example of establishment of urban tree-planting fund administered by independent NGO.
	Woodland Incentive Program fund (Maryland)	Taxes land transfers to support small landowner forest management.
	Chesapeake Bay Trust (Maryland)	Takes income from donations and sales of special automobile licence plates; supports reforestation to improve water quality.
	Forest Resource Trust (Oregon)	Supports private lands reforestation in return for share of any future forest income; also markets resulting carbon sequestration.
Uruguay	Forest Fund	Receives income from various sources; spends on loans to forest land owners and light industry, forest land purchase, and public forest management. Spending follows long-term plan.
Vanuatu	Forest Fund	Receives forest-related government income, general revenues, and donations; spends on forest plantations, afforestation, and reforestation.
Vietnam	Forest Regeneration Fund	Receives income from a fee charged on all harvests; spends to plant new forests, restore damaged forests, and manage and protect existing forests.
Zambia	Forest Revenue Fund	Receives income from licences, fees, and concessions.
	Forest Development Fund	Promotes the wood processing industry and afforestation and reforestation programmes within the forest sector.
	Fund for Joint Forest Management	Supports local forest management efforts.

In recent years, National Forest Funds (NFFs) have regained international attention as potential solutions to improve financial governance and the administration of funds in the forestry sector. NFFs are financing mechanisms solely dedicated to improving the conservation and sustainable use of forest resources. They are usually established in order to pursue forest related activities independent from traditional budgetary allocation restrictions and are typically endowed with funds from national budgets, ODA and dedicated multi- or bilateral funding streams (e.g. REDD+ funding).

If well-managed and administered, NFFs can be effective in meeting a number of challenges in the forest sector including: advancing long-term investment needs; supporting the decentralisation and devolution of forest management; leveraging additional sources of funding; encouraging private sector investments; promoting the production of forest ecosystem services; adapting forestry spending to the seasonality of operations (e.g. planting season); stimulating more effective forest management; and creating increased transparency and accountability.

NFFs can vary significantly both in their stated purpose and the way in which they operate. Indeed, an NFF can function either as a transfer fund or catalytic fund, or perform both functions simultaneously. While a transfer fund can be defined as a distribution platform for funding streams from donors to beneficiaries (mainly from public sources), a catalytic fund provides finance/support to overcome socio-economic obstacles/crises and to prepare future commercial development more and more independently from public sources.

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ISBN 978-92-5-107865-5

9 789251 078655

I3395E/1/08.13