REDD+ PARTNERSHIP

ANALYSIS OF REDD+ FINANCING GAPS AND OVERLAPS

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TABLE OF CONTENTS

List of Tables

List of Figures

List of Boxes

List of Annexes

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ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
A/R	Afforestation/Reforestation
AUD	Australian dollar
BNDES	Banco Nacional de Desenvolvimento Econômico e Social (Brazilian National Bank of Economic and Social Development)
CARS	Carbon Asses Registry System
CBFF	Congo Basin Forest Fund
CCX	Chicago Climate Exchange
CDM	Clean Development Mechanism
CER	Certified Emissions Reduction
CI	Conservation International
CIF	Climate Investment Funds
CIFOR	Centre for International Forestry Research
CNY	China Yuan Renminbi
COP	Conference of Parties
CPF	Collaborative Partnership on Forests
DAC	Development Assistance Committee
DEO	Designated Operational Entity
DRC	Democratic Republic of Congo
EB	Executive Board
EC	European Commission
EUR	Euro
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FIP	Forest Investment Program
FMT	Facility Management Team (FCPF)
GBP	United Kingdom Pound
GEF	Global Environment Facility
GRIF	Guyana REDD+ Investment Fund
Gt	Gigaton
IPCC	Intergovernmental Panel on Climate Change
IWG-IFR	Informal Working Group on Interim Finance for REDD+
MoU	Memorandum of Understanding
NFMA	National Forest Monitoring and Assessment
NFP	National Forest Program
NPD	National Programme Document (UN-REDD)
ODA	official development assistance
OECD	Organization for Economic Cooperation and Development
OTC	Over-the-counter
PES	Payment for environmental services
PNG	Papua New Guinea
PT	Programme Team (UN-REDD)
REDD	Reduced Emissions from Degradation and Deforestation
R-PIN	Readiness-Plan Idea Note
R-PP	Readiness Preparation Proposal
SFM	Sustainable Forest Management
SIDS	Small Island Development States
STAR	System for Transparent Allocation of Resources (GEF)
tCO_2e	ton carbon dioxide equivalent
TIMO	Timberland investment management organization
TNC	The Nature Conservancy
UNEP	United Nations Environment Programme

UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
USD	United States dollar
VRD	Voluntary REDD+ Database
WCMC	World Conservation Monitoring Centre
WP	Work Program
WWF	World Wide Fund for Nature

Exchange rates used:

EUR 1 = USD 1.35
GBP 1 = USD 1.52
CNY 1 = USD 0.15

1. INTRODUCTION

1.1 Background

The REDD+ Partnership was launched in the Oslo Climate and Forest Conference May 27, 2010. In total, approximately USD 4 billion was dedicated towards fast-start funding to support developing countries in their efforts to reduce emissions from forest loss during 2010-2012. In the UNFCCC Conference of Parties (COP-15) in Copenhagen, USD 3.5 billion was pledged for REDD+. The REDD+ Partnership is intended to allow developing and developed country partners to implement REDD+ without delay, building on the existing political momentum on enhancing the role of the world's forests in climate change mitigation and adaptation. The Partners aim to improve "the efficiency, effectiveness, transparency and coordination of REDD+ initiatives and related financial instruments, to facilitate among other things knowledge transfer, capacity enhancement, mitigation actions and technology development and transfer"[1].

The Partnership approved its Work Program in Bonn, August 6, 2010 which is composed of two phases: (i) Immediate actions; and (2) Medium-term actions (2011-2012). Component 2 of the Work Program calls for initiating efforts to identify and analyze gaps and overlaps in financing and take steps to address them. This study has been prepared to assist the REDD+ Partnership in the implementation of the first phase of Component 2 of the Work Program.

1.2 Objectives

The objectives of the assignment are to produce

- a preliminary identification and analysis of REDD+ financing gaps and overlaps covering the full scope of REDD+, including financing for, and actions directed towards, building capacity and facilitating enabling institutions in developing countries to better channel finance and technology for REDD+ actions; and
- a set of recommendations on ways to address REDD+ financing gaps and overlaps

The terms of reference of the study is given in Annex 1.1 which also includes a tentative list of questions to be answered in the study.

1.3 Approach and Methodology

Figure 1.1 illustrates the overall approach of the study which has two main lines of investigation: (i) financing needs and (ii) financing sources. Figure 1.2 illustrates how the information on the needs and sources of financing evolves into financial agreements between parties.

Sources of Information

The study is mostly based on the available information including, among others:

- REDD+ Financing and Activities Survey prepared by the Intergovernmental Taskforce, for the Oslo Climate and Forest Conference, May 27, 2010

[1] REDD+ Partnership document

Figure 1.1 Study Approach

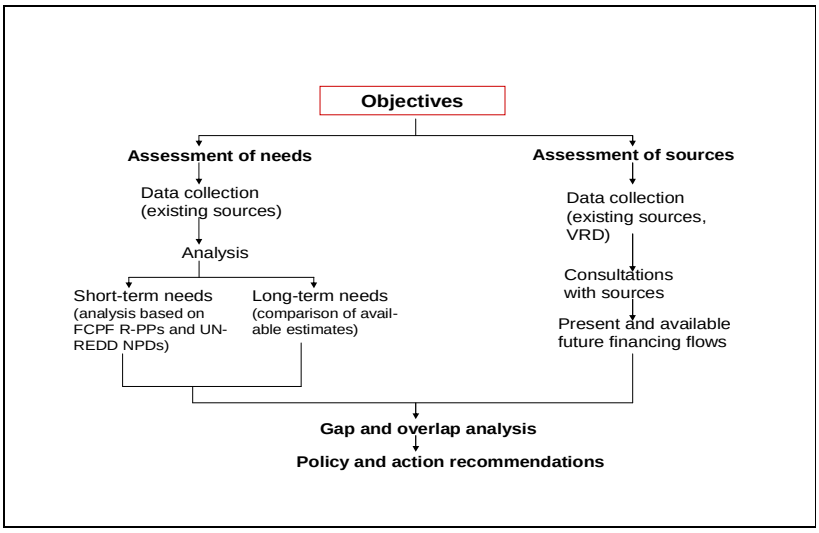
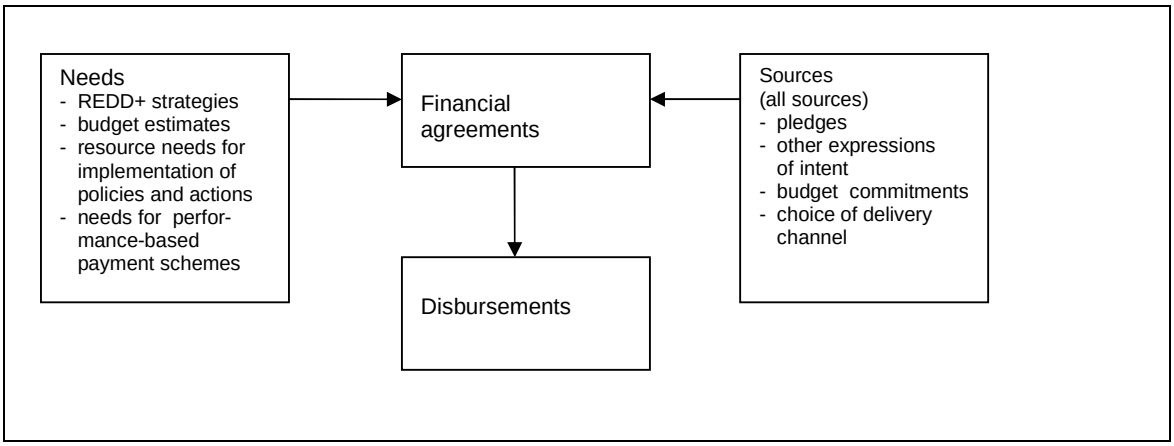


Figure 1.2 Interaction of Needs and Sources in REDD+ Financing



- the Voluntary REDD+ Database (VRD) which is being developed by FAO and UNEP-WCMC[2]
- FCPF Readiness Preparation Proposals (R-PPs) and their supporting documents which are currently available on 18 countries
- UN-REDD National Program Documents (NPD)[3] and their supporting documents which are currently available on eight UN-REDD partner countries
- Various abatement cost studies and financial needs assessments for REDD+
- The design document of the Forest Investment Program and the mapping study on financing needs and sources
- Background documents produced for the Informal Working Group on Interim Finance for REDD+ (IWG-IFR)
- Relevant other documents on REDD+ financing and forest carbon markets

2 The VRD data as uploaded by November 8, 2010 was used in the study.

3 Earlier called Joint Programme Documents

- Other sources such as websites of CDM, the Amazon Fund, the Congo Basin Forest Fund (CBFF), bilateral and multilateral agencies and their climate and REDD initiatives

In addition, a quick survey was carried out among donors to clarify their current REDD+ Fast-Start commitments. In order to complement the available documented information, consultations were also carried out with bilateral and multilateral funding sources. A number of REDD+ recipient and donor country governments were consulted to clarify information on their financing needs.

Scope of REDD+ and Financing Needs

The scope of REDD+ is defined in general terms in the Decision 4/CP.15 (FCCC/CP/2009/ 11/Add.1, page 11), which calls for "reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries".

Operationally, there is a broad understanding that a phased approach is needed on the country level to implement REDD+. The study attempts to cover the three phases of REDD+ which are being applied by the on-going REDD+ programs even though there is no common definition of their scope[4]. These phases are:

- Phase 1. Readiness (development of national strategies and design of action plans, policies and measures, organization of the REDD+ process, and initial capacity building)
- Phase 2. Implementation of REDD+ strategy (policies, measures and action plans)
- Phase 3. implementation of performance-based actions through e.g. payment schemes for verified emissions reductions and removals

Phase 3 is naturally part of the implementation of the national REDD+ strategy. Box 1.1 includes examples of relevant activities of each phase.

The three phases are not necessarily consequential as various activities can be implemented in parallel. For instance, REDD+ implementation can be started without a national comprehensive strategy which may be developed in due course based on lessons learned. On the other hand, capacity building and demonstration activities can be part of both the first and second phase. Each country will determine its own course of actions but the above phases provide a useful framework for assessing financing needs for REDD+.

In assessing the needs for and sources of financing, the focus of the study is in the first phase and the other phases are covered to the extent available information allows. The financing needs for REDD+ readiness are analyzed as identified by developing countries participating in multilateral REDD+ programs. Financing needs for phase 3 are reviewed based on available studies.

4 See e.g. www.un-redd.org and www.forestcarbonpartnership.org

Box 1.1 REDD+ Phases and Examples of Relevant Activities

1. **Planning, organization and initial capacity building (REDD+ Readiness – Phase 1)**
   - organization and management of the REDD+ process
   - consultations and stakeholder engagement
   - development of national REDD+ strategy
   - preparation of action plans
   - design of policies and measures
   - elaboration of reference scenario
   - design and testing of monitoring system
   - initial training and other capacity building activities
   - piloting of demonstration activities
2. **Implementation of REDD+ national strategy (Phase 2)**
   - policy, legal and institutional reforms in the forest and related sectors
   - land tenure reform
   - land-use planning and zoning
   - national forest inventory
   - strengthening of enforcement
   - capacity building for implementation of REDD+ (public sector, private sector, forest communities, civil society and other stakeholders)
   - technology transfer
   - targeted programs to address drivers of deforestation and forest degradation
   - implementation of demonstration activities
   - development of the performance-based payment system
3. **Implementation of performance-based incentive payment systems (Phase 3)**
   - administration of the payment system
   - implementation of results-based actions by forest communities, landowners, the private sector, government agencies and other stakeholders
   - implementation of other low carbon activities to reduce pressure on forests
   - monitoring and verification of implementation and outcomes of results-based actions

REDD+ financing needs can be divided into three categories: (i) financing of specific REDD+ activities as e.g. listed in Box 1.1; (ii) REDD+ related activities that are cross-cutting within the forestry sector in which REDD+ can form a significant part, and (iii) REDD+ related activities that are cross-cutting with other sectors which are targeted at reducing pressure on conversion of forest land and excessive utilization of forest resources (Figure 1.3). Emissions reduction is not necessarily a primary objective in cross-cutting activities but they can contribute to REDD+ objectives. Both mitigation and adaptation can be simultaneously targeted in the interventions of the last two groups of activities. For the analysis of financing gaps and overlaps, cross-cutting activities can represent a problem as data is not always adequately classified.

Pagiola & Bosquet (2009) have provided a framework for assessing costs of REDD+ which is also useful for estimating needs for financing. They separate three cost categories: (a) design and implementation of the REDD+ program which are relevant for Phases 1 and 2, respectively, (b) opportunity costs reflecting the foregone benefits of alternative land use for REDD+ program, and (c) transaction costs which are associated with the performance-based payment schemes. The latter two types of cost would occur during Phase 3 and they are discussed in detail in section 2.2.

Figure 1.3 Examples of Specific and Cross-cutting Activities of REDD+

1. Specific REDD+ activities
- REDD+ strategy
- Reference level, MRV
- specific REDD+ capacity building
- carbon payments

2. REDD+ activities that are cross-cutting with SFM
- governance improvement
- forest policy reform
- SFM capacity building
- forest resource monitoring and assessment
- improved, silviculture and harvesting methods

3. REDD+ activities that are cross-cutting with other sectors
- intensified agriculture
- energy efficiency improvement
- land tenure reform
- main infrastructure investments
- non-forest low carbon activities to create alternative employment and income

Financing Needs for REDD+ Readiness (Phase 1)

The main comparable sources of information on country financing needs of the REDD+ Phase 1 are FCPF REDD+ Preparation Proposals (R-PPs) and UN-REDD National Programme Documents (NPDs). A consolidated database in the form of country-level excel worksheets was prepared based on the available details on budgeted requirements by component and subcomponent. The analysis of cost components followed the current FCPF categories (the first four components in Box 1.2).

Box 1.2 Cost Categories Applied in the Financing Needs Assessment for REDD+ Readiness (Phase 1)

1. Organization, consultation and management of the REDD+ process
2. REDD+ Strategy
3. Reference scenario/level
4. Monitoring system
5. Program management and other costs

The budget estimates of the UN-REDD were first analyzed using the breakdown applied in NPDs: (a) planning and coordination, (b) capacity building, and (c) technical dimensions and all were further divided into subcomponents. In this study these subcomponents were reclassified into the components outlined in Box 1.2.[5]

Reclassification of NPD subcomponents was not a straightforward exercise. For instance, some NPDs included demonstration activities and capacity building which were not directly linked with the groups in Box 1.2. In order to avoid introducing new cost categories these

[5] Some NPDs also include a cost category called “indirect costs”. These costs are allocated separately by the Multi-Donor Trust Fund Office and do not come off the top of the national UN-REDD program budget.

activities were included in the cost component REDD+ strategy. By this approach it was possible to make a comparison of UN-REDD NPD budgets with those of FCPF R-PPs which was necessary to assess complementarities and overlaps.

It is recognized that the information above refers to the REDD+ Phase 1 (readiness) only and is therefore limited. However, the FCPF/UN-REDD budget data allows the first time a quantitative cross-country analysis of the financing needs of REDD+ Phase 1 and is helpful for making recommendations for further action.

Financing Needs for REDD+ Phases 2 and 3

Data on financing needs beyond readiness is scattered and less consistent which is partly due to lack of commonly agreed guidance on how the respective costs should be estimated by countries. Developing countries were requested to provide their own estimates beyond readiness (REDD+ Phase 1) for the REDD+ Financing and Activities Survey (May 27, 2010). The submitted data was reviewed in this study.

Several studies have been carried out on estimating REDD+ opportunity costs and some on transaction costs of performance-based payment schemes, most focusing on deforestation. They were reviewed for the purposes of this study.

REDD+ Funding Sources and Supply of Financing

The following funding sources are covered in the study: (i) bilateral donor agencies, (ii) multilateral and regional financing institutions and initiatives, (iii) domestic public funding, (iv) civil society organizations, (v) the private sector, and (vi) others. In the assessment of multilateral and regional financing initiatives information is needed on what are their funding sources, i.e. mainly bilateral donor agencies. Civil society organizations receive funding from international organizations and donor agencies and national government bodies but they also raise financing from philanthropic foundations, private individuals and other sources. A comprehensive picture of the financing flows was attempted to avoid double counting of financing flows.

Compilation of the available data on sources of REDD+ financing proved to be a complex and challenging exercise due to several reasons. Individual data usually refers to varying periods (in this case mostly for 2008-2015). The assessment of the relevance to REDD+ in many individual cases is not easy due to inadequate data and some countries have used discount factors for funding flows in which climate change was only one of the project objectives.

The data is not always consistent between donors, multilateral and regional agencies and recipient countries, e.g. multilateral agencies can report different figures on their sources from those submitted by donor agencies. Discrepancies can be due to different concepts used (pledges, commitments, agreed amounts, programmed funding, etc.), different dates, currency exchange rates and other reasons. Another issue is double counting when the same funds appear twice as flows from bilateral agencies to multilateral and regional agencies, NGOs and other intermediaries, and further from them to recipient countries or their beneficiaries. The web of financing flows to forests is complex and difficult to track (Simula 2008).

The information on funding changes over time, in this case often frequently as REDD+ is a political priority for many financing sources. The supply chain of financing is also difficult to track because pledges take time to convert into commitments and further into agreements between parties. Figure 1.4 provides a partial schematic illustration of the supply chain which

however fails to capture many direct financing flows to beneficiaries. Furthermore, what has been pledged or committed may not be readily available for administrative reasons. In addition, if intermediaries are involved, they add another layer into the supply chain involving their own procedures. Another area of delays can be due to the recipient country administrative procedures. Transaction costs can be significant if several intermediaries are involved as many program evaluations have shown.

The feedback loop from monitoring and evaluation of activities and impacts in Figure 1.4 will be particularly important for REDD+ financing due to the expected size of funding flows which are expected to be increasingly linked with the delivery of performance.

Gap and Overlap Analysis

Figure 1.5 provides a conceptual framework for identifying gaps between financing needs and sources. Gaps can be separately assessed for the three phases of REDD+ process. In this study gaps and overlaps were assessed systematically for Phase I (Readiness) based on the available data in countries participating in FCPF and UN-REDD programs. Gaps at the level of Phase 2 and 3 could only be assessed on a very general level based on the various independent estimates on financing needs and, in the case of Phase 2, review of available funding for activities related to implementation of REDD+ policies and measures.

The approach is theoretical and could not be fully operationalized due to parallel implementation of the identified REDD+ phases. Gap 3 is discussed in the study based on opportunity costs which is not adequate as Phase 3 may in fact include financing of other costs as countries are likely to develop their own funding schemes which are not separating opportunity costs and other costs. The limitations of opportunity cost approaches are discussed in detail in section 2.2.2.

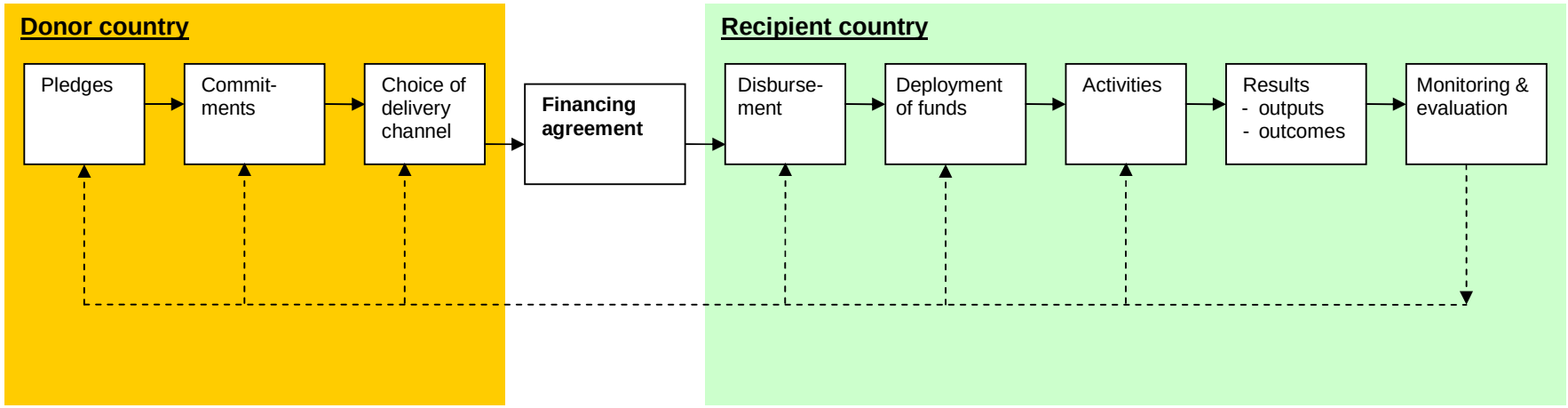
Issues Related to National REDD+ Processes

The Terms-of-Reference of the study called for investigation of linkages and integration of REDD+ processes with other planning frameworks and participation in the elaboration of REDD+ plans and programs. An analysis was made on to what extent the planning documents (R-PPs and NPDs) referred to various macro-level and sectoral planning frameworks including sustainable development plans, poverty reduction strategies, low-carbon development plans, land reforms and land use development plans, plans to combat land degradation and desertification, national forest programs (NFPs) and other targeted forest programs, environmental and biodiversity plans, energy plans, governance programs, agriculture development plans, and programs to develop payment schemes for environmental services.

For the assessment of scope of participation in national REDD+ processes the R-PPs were analyzed in terms of who had developed them and who had participated in the preparatory process. The following stakeholder groups were included in the analysis: various ministries and government agencies (planning, finance, environment, natural resources, forestry and others), the private sector, universities and research institutes, the civil society organizations (national and international), indigenous peoples, forest communities and landowners, bilateral donors and their project staff, as well as national and international consultants.

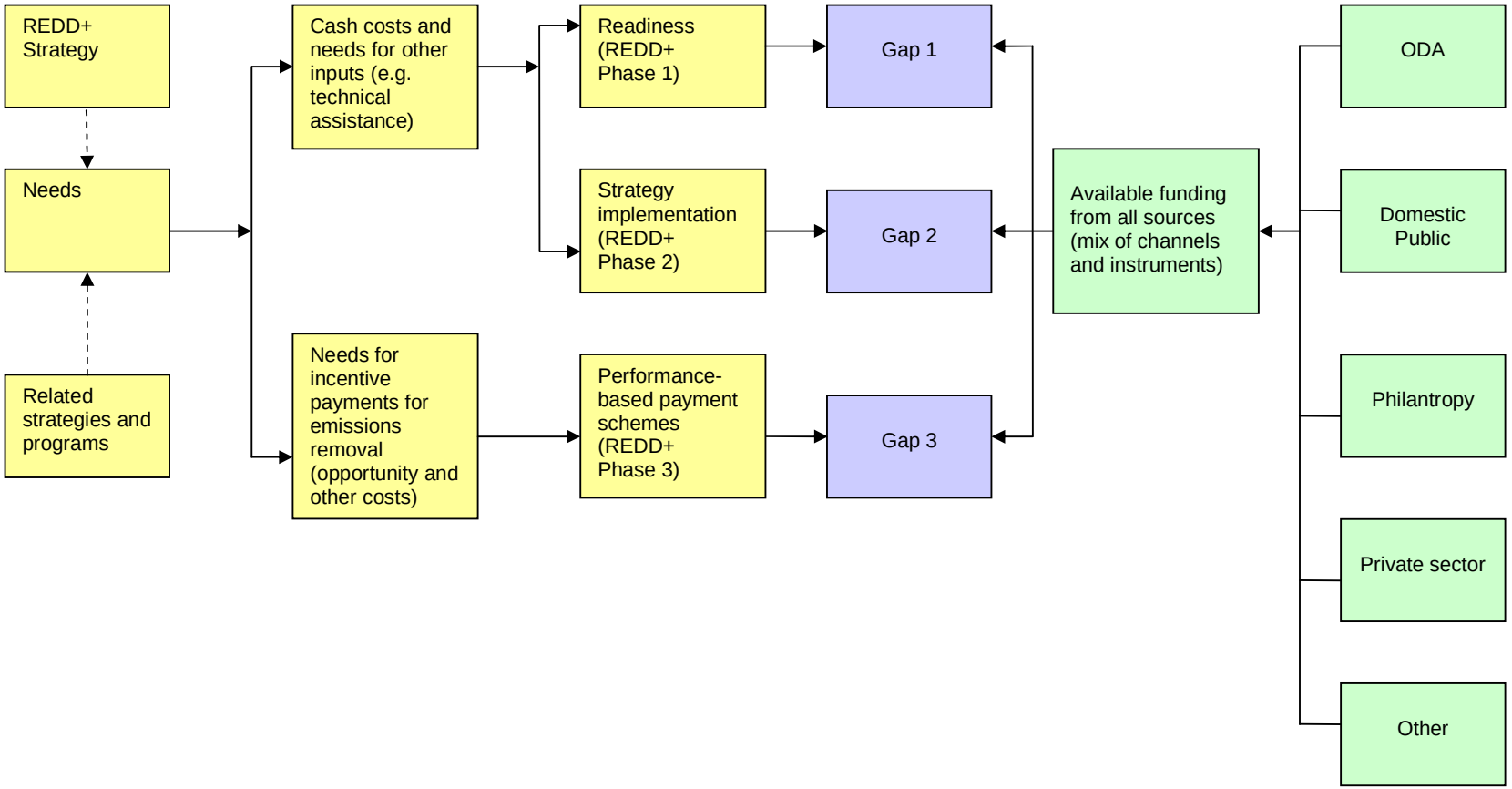
It is recognized that the assessment can be only tentative at this stage due to the fact that the documentation used has been developed at differing degrees of detail between countries. Participation processes are still going on in some countries and integration of REDD+ with other planning frameworks is also a time-consuming process which in many cases has only been initiated.

Figure 1.4 **Supply Chain of Public Sector Funding to REDD+**



Note: This is a partial schematic illustration for the time factor in bilateral grant flows. The figure excludes many other financing channels and mechanisms being practised which have different “supply chains”.

Figure 1.5 **Elements of REDD+ Financing Gap Analysis**



2. ASSESSMENT OF FINANCING NEEDS FOR REDD+

2.1 Financing Needs of REDD+ Readiness (Phase 1)

The FCPF R-PPs and UN-REDD NPDs provide an initial basis to assess needs for financing of REDD+ readiness. The former exist for 18 countries and the latter for eight countries. It is the first time that comparative information on financing needs is available on such a large number of developing countries. The two programs overlap in five countries (DRC, Indonesia, Panama, Tanzania and Vietnam). Due to the larger budgets the analysis will be mainly based on the FCPF estimates. In three countries R-PPs also include UN-REDD inputs even though the two do not appear to be fully consistent which each other.

2.1.1 Analysis of FCPF R-PPs and UN-REDD NPDs

Financing Requirements in FCPF R-PPs

The R-PP country budgets include an overall estimate for REDD+ readiness (Phase 1) and the R-PPs also include an overall financing plan covering all sources of funding. The budgets (Annex 2.1) have been compiled using four main components (1) plan and organize, (2) elaboration of the national REDD+ strategy, (3) establishment of the reference level, and (4) monitoring system. In some countries there are some additional elements related to capacity building and demonstration. The budget data by component and country is given in Annex 2.2[6].

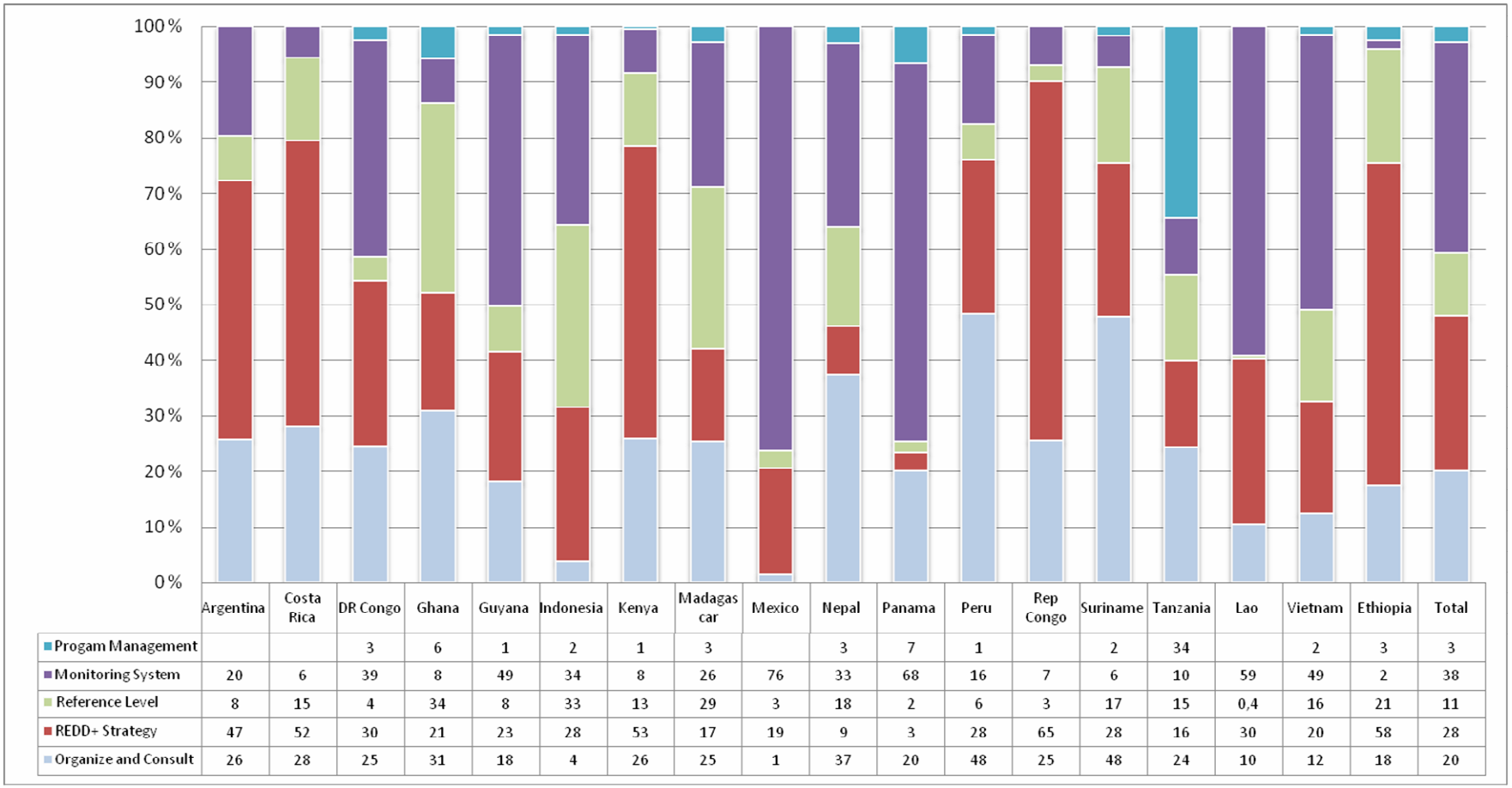
The total financing needs of the 18 FCPF countries were USD 243.8 million (Annex 2.2). National R-PPs usually cover a period of two to three years. The largest component is the development of monitoring system absorbing on average 38% of the total financing needs followed by the preparation of the REDD+ strategy (28%). Organization of the REDD+ process and consultations account for a fifth and the elaboration of the reference level for a tenth of the total needs (Table 2.1).

The analysis reveals that there is extensive variation between countries of budget breakdowns by component (Figure 2.1). This is probably mainly due to different level of initial REDD+ preparedness. Variation may also be partly explained by different country interpretations of some budget components which cannot be readily classified under the first main four components of R-PPs.

The total country needs vary from a minimum of USD 4.3 million in Costa Rica to a maximum of USD 39.6 million in Mexico (Table 2.2). The financing requirements exceed USD 15 million also in DRC, Indonesia, Panama, Suriname and Vietnam (Annex 2.2). The typical range in other countries appears to be from USD 5 to 10 million.

6 Estimation of financing needs for REDD+ have proved to be an evolving process. Annex 2.4 shows how various estimates have evolved over time.

Figure 2.1 Structure of FCPF R-PP Budget Requirements by Component and Country



	Argentina	Costa Rica	DR Congo	Ghana	Guyana	Indonesia	Kenya	Madagascar	Mexico	Nepal	Panama	Peru	Rep Congo	Suriname	Tanzania	Lao	Vietnam	Ethiopia	Total
Progam Management			3	6	1	2	1	3		3	7	1		2	34		2	3	3
Monitoring System	20	6	39	8	49	34	8	26	76	33	68	16	7	6	10	59	49	2	38
Reference Level	8	15	4	34	8	33	13	29	3	18	2	6	3	17	15	0,4	16	21	11
REDD+ Strategy	47	52	30	21	23	28	53	17	19	9	3	28	65	28	16	30	20	58	28
Organize and Consult	26	28	25	31	18	4	26	25	1	37	20	48	25	48	24	10	12	18	20

Source: Annex 2.2

Table 2.1 Summary of R-PP Budget Requirements by Component

Component	- USD 1000 -			%
	Min	Max	Average	Total
1. Organize and consult	536	10,157	2,712	20
2. REDD+ strategy	500	7,644	3,796	28
3. Reference level	85	6,153	1,527	11
4. Monitoring system	120	30,234	5,108	38
5. Program management	60	3,470	557	3
Grand Total	**4,349**	**39,589**	**13,547**	**100**

Source: FCPFC R-PP documents, Annex 2.2

The budgeted needs for Component 1 Organize and consult vary extensively between countries from USD 0.5 to 10.1 million (Mexico and Suriname, respectively).[7] As a whole the calculated average share of this component in the total costs is 21% but in some cases it absorbs about a third or more (Suriname, Ghana, Nepal and Peru). High amounts for the management of the REDD+ process are reported in Peru (USD 3.9 mill.) and DRC (USD 5.6 mill.) but more than USD 2 million is also needed in Kenya, the Republic of Congo, Argentina, Ghana, Nepal, Lao PDR and Tanzania. The needs in Costa Rica and Indonesia are less (USD 1.2 and 0.7 million, respectively). The low needs in Mexico, Costa Rica and Indonesia are probably explained by significant efforts made by these countries before the R-PP needs were identified. The costs also depend on the extent of the consultation activities which belong to this budget category. Some estimates appear to be on the high side and can raise the issue of cost-efficiency.

The elaboration of the National REDD+ strategy accounts for about 28% of all the total costs in 18 FCPF countries. The country costs vary from USD 0.5 million (Panama) to more than USD 7 million (Mexico, Lao PDR and the Republic of Congo). More than USD 5 million is also required in the DRC, Kenya and Suriname. In the other countries the financing needs are in the range of USD 0.5 to 4 million.

The country-level costs for the elaboration of the reference level vary from USD 0.1 million (Lao PDR)[8] to USD 6.2 million (Indonesia) but also in Suriname the estimated needs are high (USD 3.7 million). In the other countries the costs of reference level elaboration require an investment of USD 0.6 to 2.5 million.

The largest single component is usually the costs of the monitoring system, including monitoring of the forest carbon stock and emissions as well as that of forest governance. Large investments will have to be made in Mexico (USD 30.2 million), Lao PDR (USD 13.9 mill.) and Panama (USD 10.2 mill.). In the DRC the estimated needs are USD 8.8 million and in Indonesia USD 6.5 million which are probably influenced by the large size of the countries as in the case of Mexico. Elsewhere the estimated needs are generally in the range of USD 1 to 2.5 million. The lowest needs are identified in Ethiopia, Costa Rica and Ghana (USD 0.1, 0.2 and 0.6 million, respectively). The monitoring costs are discussed in more detail in section 2.1.3.

The wide variation of the component-wise budget estimates can be partly explained by the work which was already carried out before the FCPF requirements were estimated. On the

7 According to the country's authorities, the high Surinamese estimate is mainly due to extensive needs for filed-level consultation.

8 According to the Laotian specialists, the R-PP budget estimate for the reference level is inadequate and likely to be about USD 1 million.

other hand, there appears to be some inconsistencies in how the needs of various activities were estimated and classified. For instance, in some cases, part of the cost of reference level elaboration has apparently been reported under the elaboration of the national REDD+ strategy.

It can be concluded that the variation in national needs for financing REDD+ readiness is related to country size, prevailing drivers of deforestation and forest degradation and their importance, ability to contribute to emission reductions, existing capacities, previous investments made in REDD+ related activities and therefore there is no one size fits all approach. The averages reported in Table 2.1 are only provided as indications and the purpose is not to provide a reference to country estimates. However, as there are many elements which can be considered largely fixed cost, the information on component-wise average costs may have a certain value for comparative analyses.

Financing Requirements in the UN-REDD NPDs

The total funding requests of the eight UN-REDD National Programmes amounted to USD 35.5 million (Annex 2.3). Programs typically cover a period of one to three years. As in the case of R-PP budgets, the analysis reveals that there is extensive variation between countries in terms of budget breakdowns by component.[9] The country support financing needs range from USD 2.6 million to about USD 5.6 million (Table 2.2).

Table 2.2 Summary of UN-REDD NPD Budget Requirements by Component

Component	- USD 1000 -			%
	Min	Max	Average	Total
Organize and consult	495	2,306	1,494	33
REDD+ strategy	192	2,855	1,724	29
Reference level	260	800	513	10
Monitoring system	500	2,194	1,201	23
Program management	200	350	275	2
Indirect support cost	169	360	279	4
Grand total	**2,584**	**5,569**	**4,530**	**100**

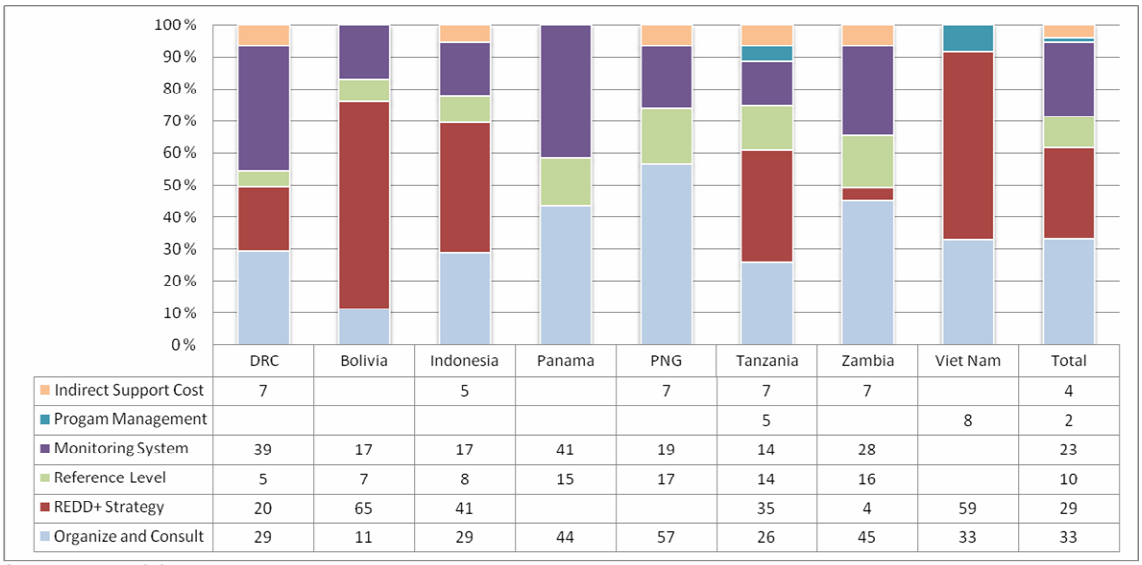
Source: Annex 2.3

The largest single item in the UN-REDD budgets is support needs to Component 1 Organize and accounting for more than a third of the total. The next largest components are REDD+ strategy and monitoring system accounting for about a quarter of the total, each. Reference scenario absorbs a tenth as in the case of FCPF. There are wide variations in country needs for individual components and therefore the national breakdowns of the total budgets vary (Figure 2.2).

It is noted that PNG has no funding request for the elaboration of REDD+ strategy and in Zambia the cost estimate is relatively low. The needs for the monitoring system are on the low side in Bolivia and PNG which do not presently participate in FCPF.

[9] The analysis does not distinguish Full UN-REDD NPs and Initial NPs which explains part of the variation in budget estimates.

Figure 2.2 Structure of UN-REDD NPD Budget Requirements by Component and Country



	DRC	Bolivia	Indonesia	Panama	PNG	Tanzania	Zambia	Viet Nam	Total
Indirect Support Cost	7		5		7	7	7		4
Progam Management						5		8	2
Monitoring System	39	17	17	41	19	14	28		23
Reference Level	5	7	8	15	17	14	16		10
REDD+ Strategy	20	65	41			35	4	59	29
Organize and Consult	29	11	29	44	57	26	45	33	33

Source: Annex 2.3

Comparison the FCPF and UN-REDD Estimates

FCPF and UN-REDD support together five countries and their budget estimates should therefore be harmonized as the FCPF R-PP budgets include a financing plan for all sources (including UN-REDD). To check consistency between the two programs, a comparison was prepared (Table 2.3) which shows that there are significant differences in the reported funding from UN-REDD in the R-PPs and NPDs of those countries that are included in both programs. This is probably largely due to the fact that the dates of the documents are different as budget processes have been evolving. This makes it impossible to make a meaningful integration of the budget estimates. Further work in this area, considering also all the other sources of financing, is needed, particularly when country budget requirements for various REDD+ related programs are assessed.[10]

Table 2.3 Comparison of UN-REDD Budgets and UN-REDD Inputs in FCPF R-PP Budgets

Country USD 1000	UN-REDD input in FCPF budgets	UN-REDD, total budget	Difference
DRC	6,727	5,500	1,227
Indonesia	0	5,644	-5,644
Tanzania	2,556	4,280	-1,724
Panama	8,500	5,300	3,200
Vietnam	3,514	4,505	-991

Source: FCPF R-PPs and UN-REDD NPDs
Note: In DRC R-PP Budget USD 1.2 million was reported to be from the source UN-REDD/FCPF, and further USD 5.5 million directly from UN-REDD

It is recognized that estimating financing needs for REDD+ readiness phase is still an evolving discipline which is getting gradually increasingly precise with accumulating experience and better data. Table 2.4 and Annex 2.4 illustrate how estimates of the FCPF

[10] See also discussion in section 4.2.

financing needs have changed over time. It is clear that when the accuracy in estimation improves, the costs also tend to increase. Even though there may have been an element of overestimation in some countries and some cost components, the experience suggests that the estimated needs for REDD+ readiness may not be sufficient in all countries. Therefore, additional financing may have to be provided and this may become necessary to create confidence about sufficient financing to encourage developing countries to embark and continue on the REDD+ process. On the other hand, there will be a need for a fully integrated budgetary process in REDD+ countries so that reliable information is available on financing needs and to what extent the identified sources cover these needs

Table 2.4 Comparison of Total Cost Estimates of REDD+ Readiness (Phase 1)

Source of estimate	Range	Average
	- USD 1000 -	
Bottom-up generic estimates	3,160–3,760	..
Bottom-up estimates by WB staff missions to tropical countries	2,264-3,640	..
R-PINs (2008)	2,050-4,627	3,255
R-PPs (2010)	4,349-39,589	13,547
Eliasch (2009)	2,050-8,500	..

Sources: Bottom-up estimates and R-PINs are based on World Bank (2008). R-PPs (2010) refer to the data in Annex 2.2. Hoare et al. (2008) prepared for the Eliasch review provides very large estimates for some readiness elements which are not reflected in this table.

2.1.2 National REDD+ Strategies

As pointed out in the previous section, the elaboration of national REDD+ strategies accounts for more than a quarter of the total financing needs of the readiness phase. However, it is not yet clear what constitutes a feasible national REDD+ strategy. Country studies on abatement costs[11] (or economic value of forests[12]) cannot be considered national REDD+ strategies even though they can provide useful inputs to the planning process. For this study, it was possible to review only three examples (DRC, Guyana and the Philippines) as many countries are still in different phases of the planning process.[13] The elements of the preliminary national REDD+ strategy of the Democratic Republic of Congo (Box 2.1) illustrate which kind of components may be included in a national REDD+ strategy. Unfortunately, the DRC strategy does not (yet) include an estimate of the financing needs of implementation of the REDD+ strategy but the work is in progress.

The REDD+ national strategy of the Philippines is more focused on the forest sector measures than in the DRC. It contains five major strategies (forest sector governance; enabling policies for REDD+; forest resource use, allocations and management; and measurable, reportable and verifiable systems for REDD+) as well as three cross-cutting strategies (capacity building and communication; research and development; and sustainable financing for REDD+) (CoDe REDD-Philippines). Unfortunately, this national strategy includes neither any estimate of the implementation costs nor how they should be financed. The recent review of the REDD+ processes in Indonesia and Viet Nam (Scheyvens

11 E.g. Indonesia.

12 E.g. Guyana

13 See e.g. ADB (2010)

2010) has revealed that the financing requirements of the REDD+ strategy implementation have not yet been identified in these two countries either.

Guyana's Low Carbon Growth Strategy (Government of Guyana 2010) can be taken as another type of example of national REDD+ strategies, but its approach is different from the other two examples due to the fact that the country belongs to the group of low deforestation countries (see Box 4.1 for a summary of the strategy). It is apparent that country situations vary extensively and each nation has to formulate its own REDD+ strategy accordingly.

Box 2.1 REDD+ Strategy of the Democratic Republic of Congo

The preliminary national REDD+ strategy consists of four strategic program areas (I-IV) and their specific programs:

I. Management, sustainable utilization and expansion of the forest resource (under the responsibility of the Ministry of the Environment, Natural Conservation and Tourism)
- Management of the permanent production forest and combating illegal logging
- Management, valorization and growth in classified forests (preservation of biodiversity, development of public-private partnerships)
- Afforestation and reforestation for restoration of degraded forests and marginal lands
- Directing and transfer of protected forest management to local communities

II. Accelerated development of productive agriculture in rural-forest environments (in coordination between Ministry of Environment, Natural Conservation and Tourism and Ministry of Agriculture).
- Increased productivity and settlement of shifting cultivators
- Increased yields and value added of commercial small-scale agriculture
- Development of intensive agriculture by rehabilitation of old plantations and establishment of new plantations

III. Limiting the impact on forests of growth of urban areas and industrial sectors (in strong inter-ministerial coordination)
- Reduction of demand for, and increased supply of, fuelwood
- Limiting the direct and indirect impacts on forests of extractive industries, particularly the mining and hydrocarbon sectors
- Integrated socio-economic, rural and urban development through a targeted program to create activities for generating alternative revenues

IV. Cross-cutting priority programs
- Development and updating of the REDD+ strategy.
- Major legal and institutional reforms.
- Establishment of a participative process.
- National system of monitoring, reporting and verification.
- Establishment of a transparent national system of revenue sharing and efficient payment systems

Source: République Démocratique du Congo (2009)

2.1.3 Forest Monitoring Costs

A national forest monitoring system[14] is a basic requirement for participation in the REDD+ process and it is the most important component of the financing needs of REDD+ readiness. A monitoring system requires both investment and recurrent costs as it needs to provide periodic reliable reporting. Forest resource monitoring systems have been operated for decades in developed countries but remained much weaker in developing countries. REDD+ participation opens up an opportunity to address this issue but it also means that a set of specific requirements has to be met. The criteria have not yet been agreed upon for

[14] In this section the discussion covers only the forest monitoring system, not including monitoring of forest governance.

establishing a national forest monitoring system but it is clear that a forest monitoring system has to be based on systematic and repeated measurements of anthropogenic forest-related greenhouse gas emissions by sources and removals by sinks, forest carbon stocks and forest area changes, and that it must include also monitoring of forest governance. Robust and cost-effective methodologies for forest measurements exist already.[15]

The development of a national forest monitoring system is an iterative step-wise process and the costs are here assessed at the three levels. The Intergovernmental Panel on Climate Change has provided guidelines to assist countries in developing carbon assessment methodologies (IPCC 2006). These guidelines are organized into three "Tiers", each successively providing increased accuracy for monitoring and verifying of carbon stocks and emissions. The Tier 1 approach is based on simple nationwide estimates of forest cover and generic forest carbon density values (e.g., tons of carbon per hectare).

Tiers 2 and 3 provide increased accuracy in information on carbon stocks and emissions at sub-national and national levels using satellite mapping and systematic sampling for estimation of land uses, and using country specific data/parameters, ground-based data sampling and carbon modeling approaches for estimation of carbon density. To achieve Tier 3 level of accuracy, both aboveground and belowground live and dead carbon stocks must be estimated and modeled. The difference between the two levels is in the accuracy and precision of results.

Many developing countries have developed their monitoring systems by stages which are not necessarily linked with the three Tiers. However, they are used in the following as a basis of estimating respective costs and thereby financing needs. For Tier 2 level the National Forest Monitoring and Assessment (NFMA) approach of FAO (2009) has been taken as the basis. Spatially-explicit estimation and expanded stratification of forest cover can increase the accuracy and precision of measuring carbon stocks in a cost effective manner when moving from Tier 2 to Tier 3 and target measurement to the areas where changes in carbon stock take place. In the developing country conditions remote sensing may provide sufficient information on changes in a cost-effective manner.

Most of the existing monitoring cost estimates are either generic or based on research or estimation in selected countries (cf. UNFCCC 2009). The problem of applying general approaches is that the actual costs are country-specific depending on (i) the purpose of monitoring[16] which defines requirements for accuracy and precision and thereby the requirements for fieldwork data collection, (ii) the existing country capacity in forest inventories, monitoring and forest management planning, (iii) needs for external technical assistance which can often be the largest cost element besides the field costs, (iv) unit costs of professional, skilled and unskilled labor force, and (v) the level of infrastructure and accessibility of forests. In addition, the costs depend on (vi) the size of the country and its forest area, and (vii) type of forest and tree resources (the extent of primary natural tropical forest, secondary natural forests, planted forests, trees outside forests, fragmentation of forests, agroforestry systems, etc.) as their carbon pools vary and there are differences in sampling intensity which is influenced by the degree of homogeneity/heterogeneity of the occurring forest types.[17]

Table 2.5 provides tentative estimates for costs in a reference country conditions assuming a total forest area of 15 to 40 million ha. The purpose is to check the estimates made in R-PPs and NPDs through a bottom-up country level estimation.

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15 UNFCCC workshop in REDD monitoring methods: report and presentations (http://unfccc.int/methods_and_science/lulucf/items/4289.php)

16 Periodic inventories are usually multipurpose covering carbon monitoring and information needs of the design of policy measures and REDD+ strategy as well as monitoring of its implementation.

17 Discussion of monitoring costs at project level is found e.g. in Böttcher et al. (2009) and Calmel et al. (2010).

The monitoring system costs in R-PPs (Table 2.1) averaged at USD 5.1 million corresponding to an investment cost during the first three years in typical conditions, the range varying from USD 0.1 to 30.3 million. The average forest area of the 18 R-PP countries was 33.8 mill. ha which is influenced by three large countries (Indonesia, Mexico and DRC). Without them the average forest area for the other countries in the sample would be 17.6 mill. ha and the respective average R-PP costs for the monitoring system would be USD 3.1 million. This is due to high costs in Lao PDR (USD 13.9 mill.), Panama (USD 10.2 mill.), DRC (USD 8.8 mill), and Vietnam (USD 7.5 mill.) while in the other countries the costs vary from USD 0.1 to 2.8 million or well within the range in Table 2.5.

Table 2.5 Estimates of REDD+ Forest Monitoring Costs for a Reference Country

Level of monitoring	Details	Indicators	Cost estimates	
			Establishment	Recurrent per year
			- USD 1000 -	
Tier 1	IPCC methods and default values	Forest area change (IPCC default values)	100-200	..
Tier 2	IPCC methods and country specific data for key factors (some level of field measurement)	Country-level estimates of carbon stock change (aboveground)	400-1,000	300-500
Tier 3	Country specific methods or models, national carbon stock inventories with repeated measurement of permanent sample plots (multi-purpose inventory)	Comprehensive carbon stock change estimates - deforestation - degradation - afforestation - all carbon pools	900-1,800	500-1,000

Notes:
- Cost estimates refer to a reference country conditions (forest area 15-40 mill. ha). The estimates refer to total costs including salaries and wages of local staff and workers.
- Tier 1 based on interpretation of satellite images (Landsat); not adequate for monitoring for REDD+.
- Tier 2 corresponds to the NFMA approach (FAO 2008)
- Tier 3 assumes increased level of stratification, increased number of tracts and additional research on below ground cartoon pools and other aspects

Source: Based information in FAO (2009), UNFCCC (2009), Hardcastle & Baird (2008) and expert consultations

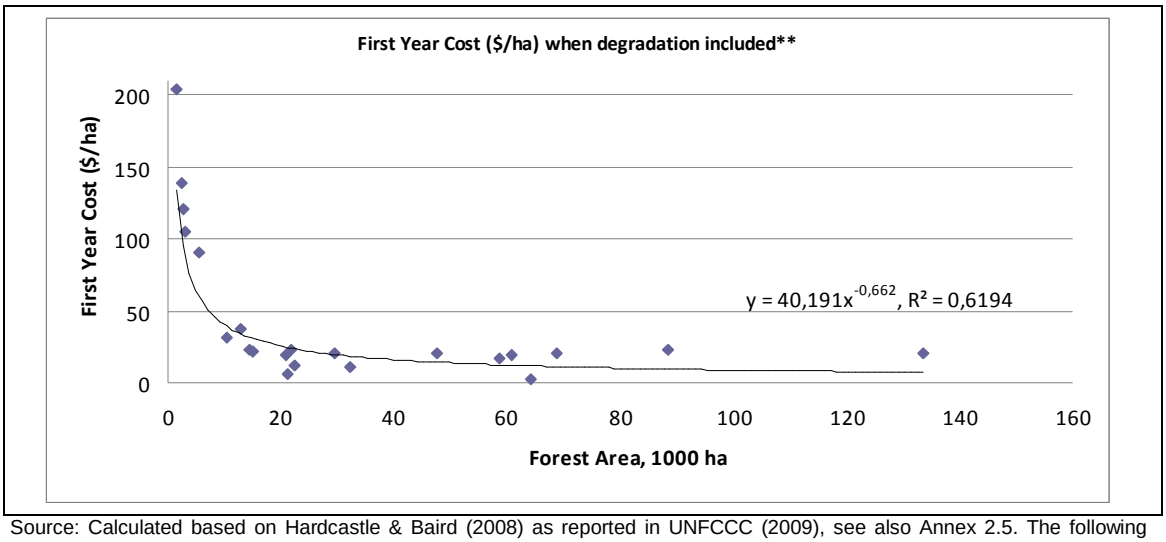
Annex 2.5 summarizes earlier cost estimates prepared by Hardcastle & Baird (2008) for the Eliasch Review covering Tier 2 and Tier 3 levels in 25 developing countries. The average total costs for both levels are about USD 1 million for the first year establishment phase and USD 240,000 to 360,000 for subsequent annual recurrent costs to operate the system. It must however be cautioned that there are economies of scale due to the importance of fixed costs (Figure 2.3). Other reasons can also cause variation in country level estimates. For instance, the national institutional conditions and how the work is organized can have major impact on the costs.[18] Therefore, any average or reference values given above should be interpreted with care.

REDD+ monitoring costs are also influenced by who is carrying out the work. If communities become widely involved in monitoring of carbon pools, the field level costs can be significantly reduced. Limited comparisons in Tanzania showed that costs of community monitoring can be only a quarter of the costs when the work is carried out by professionals (Skutsch at al. 2009). Such a solution may best work at a project level but could be expanded to monitoring at sub-national or even national levels.

[18] See e.g. the India case study in UNFCCC(2009) section V.

As a conclusion it is possible that some of the larger R-PP cost estimates for the monitoring system may have an element of overestimation which would merit further investigation. However, in most other countries the budget estimates appear to be in the range of other expert assessments. Possible overestimation may be influenced by several factors such as lack of clarity about the final characteristics of the monitoring system complying with future requirements, different Tier levels adopted in the estimates, differences in the targeted accuracy and precision, and the level of current monitoring capacity in the country.

Figure 2.3 First-Year Monitoring Unit Costs with Tier 3



Source: Calculated based on Hardcastle & Baird (2008) as reported in UNFCCC (2009), see also Annex 2.5. The following countries were included in the data: Bolivia, Colombia, Costa Rica, Guyana, Mexico, Peru, Venezuela, Cambodia, Indonesia, Malaysia, Myanmar, PNG, Thailand, Viet Nam, Cameroon, Congo, DRC, Equatorial Guinea, Gabon, Ghana, Liberia and Sierra Leone

Furthermore, financing needs of monitoring costs are spread over a longer time period than is typically covered by REDD+ Phase I (readiness). On the other hand, by definition the R-PP estimates should include also the monitoring system of forest governance which was excluded above. This may explain part of the country-estimated higher costs than discussed in this section being limited to forest monitoring only.

2.1.4 Demonstration Activities

According to the UNFCCC (FCCC/SBSTA/2/CP.13) REDD+ projects refer to subnational demonstration activities that are undertaken with the approval of host and constitute a step toward the development of national approaches. In this section the focus is on field-level demonstration projects that experiment with mechanisms that can reduce forest emissions in preparation for conditional carbon deals. The range of projects includes from small site-specific interventions to larger-scale activities that may cover a significant proportion of a territorial administrative unit in a country. Information on the needs for financing of demonstration activities is not generally available but some guidance can be obtained from planned and ongoing projects in developing countries, mainly based on the results of the recent CIFOR survey on about 50 demonstration projects in 15 countries (Wertz-Kanounnikoff & Kongphan-apirak 2009).

More than a half of these projects are medium sized (50,000-500,000 ha) while the balance is almost equally shared between small and large projects. About 57% of the projects are found in Asia and one third in Latin America but in Africa these activities are still incipient,

accounting for 11% of the total three regions. Demonstration activities tend to focus on high deforestation-high forest cover countries suggesting orientation toward effectiveness in achieving emissions reduction objectives.

Half of the demonstration projects are targeted at forest rehabilitation through reforestation and other measures which can be taken to reflect investor/host country priority. About 40% of the projects include protected area management in their objectives and one third community forest management. Only about a quarter of projects include sustainable forest management as an explicit objective and development of payment schemes for environmental services, each (Figure 2.4). There is clearly an emphasis on biodiversity and social co-benefits in the ongoing and planned demonstration activities. The low frequency of PES-type schemes indicates lack of preparedness to design feasible approaches which should be addressed in national REDD+ strategies both through policy measures and capacity building. The low frequency of SFM activities may also indicate lack of clarity on, and additionality of, these activities as well as limited financier interest. (Wertz-Kanounnikoff & Kongphan-apirak 2009).

Almost three quarters of the projects in the CIFOR survey are in low governance countries suggesting low short-term cost-efficiency. On the other hand, demonstration activities are likely to be important for providing feedback to policy measures to strengthen governance thereby removing barriers to future REDD+ financing.

The needs for financing for demonstration activities cannot be quantified based on the available information. The budgets for ongoing and planned projects are typically in the range of USD 0.5 to 2.5 million but longer term and larger projects have budgets from USD 5 to 30 million. Smaller budgets may refer only to initial years of the demonstration activities.[19]

Those projects in the CIFOR survey which are targeted at generating quantified emissions reduction credits are typically for periods between 20 to 30 years but in some cases the time horizon is extended up to 40 or 50 years. The financing requirements in the early years appear to depend more on the type and intensity of activities covered than on the size of the demonstration area. Finally, it needs to be emphasized that the quality of information is usually deficient. While area figures may be frequently available (not in all cases though), the budgets and particularly the emissions reduction data appear often very preliminary and sometimes clearly inconsistent. This is understandable as the majority of the projects are still in planning stage.

2.2 Financing Needs for REDD+ Phases 2 and 3

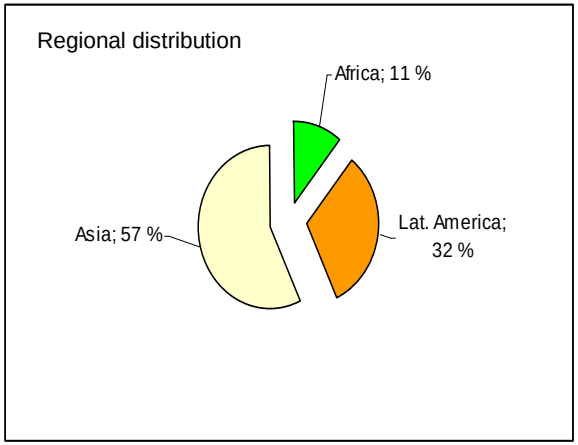
2.2.1 Country Estimates of Additional Financing Requirements

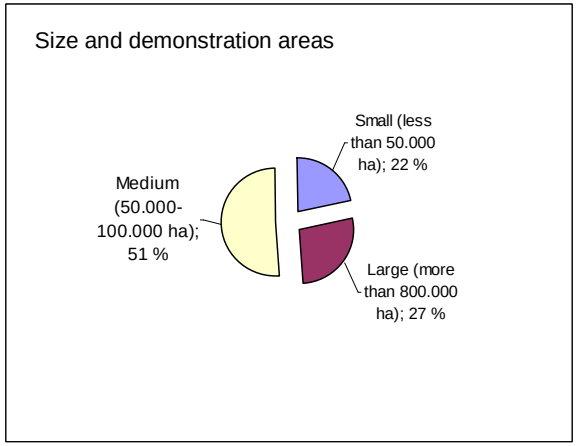
As part of the REDD+ Financing Survey (May 2010), developing countries were invited "to outline their estimated additional financial needs to build capacity for REDD+ in their countries and commence early implementation of REDD+ activities". The information obtained is summarized in Table 2.6.

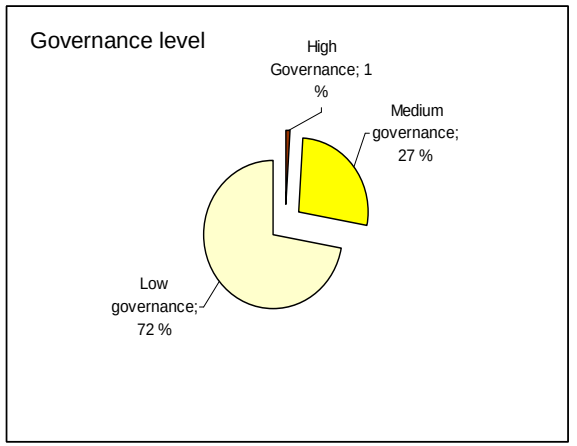
The first column can be related to REDD+ Phase 1, the Implementation and Demonstration activities can be related to REDD+ Phase 2 and the Performance-based payments to REDD+ Phase 3. Longer planning periods are reported by countries which had included Phase 3 in their estimates.

[19] See Annex 3.6 for demonstration projects with private sector participation.

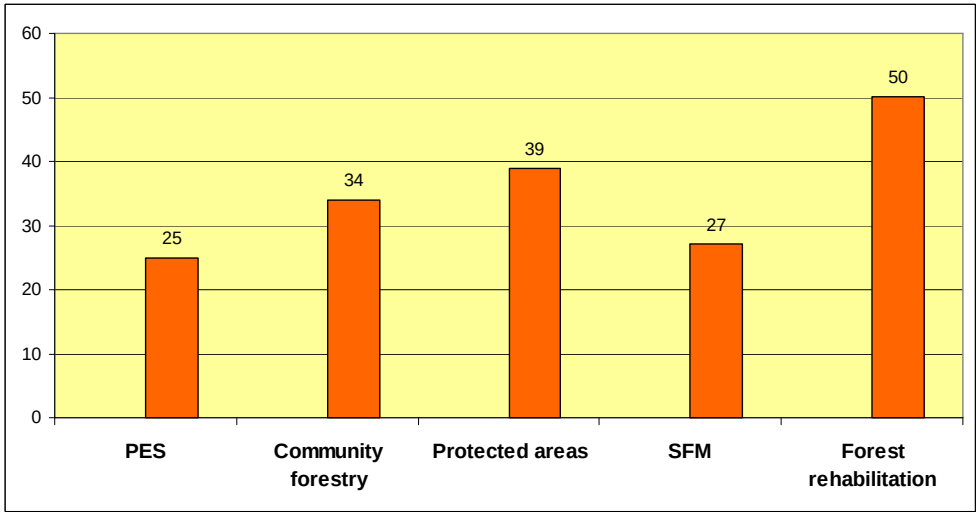
Figure 2.4 REDD+ Demonstration Activities: Regional Distribution, Size, Governance Conditions and Objectives







Objectives, % of projects



68% of projects are in the planning stage

Source: Elaborated based on data in Wertz-Kanounnikoff & Kongphan-apirak (2008)

Table 2.6 Country Estimates of "Additional Financing Needs" for REDD+

Country	Low carbon plan and REDD+ strategy	Implementation	Demonstration activities	Performance-based payments	Financing period
	- USD million -				
Brazil	1[1)]	7,500	..	..	2010-15
Central African Republic	20	20	..	..	2010-13
Chad	10+10	20	9	9	2010-12
DRC	12	700	50	3,000	2010-15
Ecuador	5.0	..	..	..	2010-12
Gabon	4.0	3.5	100	250	2010-20
Indonesia	-	10.0	5.0	..	2010-12
Mexico	20-30	20-30	50-80	20-40	2010-15
Mozambique	0.3	5.0	0.2	3.0	2010-12
Nigeria	7.0	5.0	2.0	2.0	2010-12
PNG	..	40-50	..	3,700	2010-30
Uganda	65.1-123.5	3.6-6.0	..	..	2010-15

1) Annual costs

Source: REDD+ Financing Survey (May 2010)

In all phases there is a wide variation in the needs estimated by countries. It is also apparent that some countries have underestimated their total needs (e.g. Mozambique and Nigeria) while some others have probably an element of overestimation in some components of their financing needs (e.g. Uganda for planning and possibly Gabon for demonstration activities).

An important element of the country estimates is demonstration activities for which USD 50 to 100 million is estimated to be needed in the DRC, Gabon and Mexico. DRC and PNG have also estimated substantial financing needs for performance-based payments (USD 3.0 and 3.7 billion, respectively). Gabon estimates USD 250 million and Mexico USD 20-40 million for Phase 3. In the other countries the estimates vary from USD 2 to 9 million.

In general, Table 2.6 shows that countries have used different approaches and methods in their estimation. Many estimates are probably largely judgmental. Without knowing the underlying assumptions and methodology, it is impossible to make any substantive analysis of the data and this remains an area for further development.

2.2.2 Opportunity Costs

In the REDD+ context opportunity costs are foregone net benefits of alternative land uses for REDD+ program. Such land uses are usually associated either with conversion of forest land into other purposes like crop production, grazing or mining, or with unsustainable utilization of forest resources which results in forest degradation and thereby carbon emissions.

Opportunity costs are the key component of abatement (or mitigation) costs which include all the costs of activities needed to achieve emissions reduction. [20] The total abatement costs also include related implementation costs (readiness, policies and measures, and transaction costs).

[20] Stern (2008) concluded that the opportunity costs of forest protection could be responsible for 70% of emissions from land use change.

In a well-functioning market economy opportunity cost can provide an indicator for the minimum amount to be paid to forest owners or users for not converting forest into other uses if it can be assumed that decisions are made (mainly) based on economic factors. In the case of REDD+ the additionality and non-leakage criteria have to be met as well (Gregersen et al. 2010).

There are several global and regional estimates of opportunity costs of emissions reduction from deforestation. Only few estimates exist for such costs of degradation in spite of the fact that there is a general agreement that the respective emissions are significant as country-level analyses have shown (Angelsen 2008).

The opportunity cost estimates have been used as indications of the funding needs for the implementation of payment schemes. Meridian Institute (2009) has made a comprehensive comparison of most available estimates which differ in terms of time horizon, abatement level, and geographic coverage.21 Some estimates give annual total opportunity costs and some estimates are expressed as per ton CO_2 equivalent (tCO_2e). Also the assumptions and the degree of disaggregation of estimates vary. The Stern review (Stern 2007) and the Eliasch review (Eliasch 2008) in the United Kingdom have been seminal efforts in this area and since then further work has been carried out on the subject (**Error! Reference source not found.**). A number of studies have also estimated costs up to 2020 (e.g. Eliasch (2008), Project Catalyst (2009), European Commission (2008)). All of them provide higher estimates than those covering the period up to 2015. These estimates were not reviewed in detail for this report.

Opportunity cost estimates have been calculated either through (i) a "bottom-up" or "engineering" approaches based on data on particular activities at fixed prices from selected countries (e.g. Grieg Gran 2007; McKinsey 2009), or (ii) "top-down" global simulation models (e.g. Kindermann et al. 2008). The latter have generally yielded higher estimates for the costs of large-scale REDD+ as they take into account market feedbacks from prices of commodities from alternative land uses (Lubowski 2008). The supply curve of REDD+ credits is taken as sloping upwards based on the assumption that low-cost activities to achieve reductions are implemented first.

Box 2.2 Estimate of Financing Needed for 25% Deforestation Reduction Target by 2015

Prior to COP-15 UK analysts estimated the cost of meeting the forestry target proposed by the IWG; to reduce emissions from forestry by 25% by 2015 (IWG-IFR 2009).

The total cost of meeting this target was estimated at around USD 25 billion, using a top down approach, which included opportunity costs of peat and non peat emissions as well as capacity building costs. This finance could yield 1.7 Gt of abatement in 2015, 5 Gt cumulatively over the period 2010 – 2015, including 0.5 Gt from peat. The average carbon price of non peat emissions over the period was calculated at USD 5.8 t/CO2e (in 2005 prices). This was derived from marginal abatement cost (MAC) curves that were generated by IIASA for the UK GLOCAF model. The costs of abating peat emissions were taken from IWG estimates while capacity building costs were derived from relevant cost estimates in the Eliasch review.

Bottom up estimates of the finance required to meet the target of 25% were also carried out and these provided reasonable levels of comparability to the above top down estimate. Both the top down and bottom up estimates were constructed prior to COP-15 and thus they will be revised in the near future in response to updates in data.

21 Meridian Institute (2009) Annex 2. REDD Finance Options.

Based on the various available studies, the IWG-IFR (2009) estimated that approximately USD 20 billion would be required by 2015 towards a 25 per cent reduction in deforestation and an additional USD 4 billion for reduction of emissions from forest degradation[22]: This was based on the analysis of opportunity costs resulting in a global average interim incentive payment of USD 5.40/tCO_2, which is in line of many global studies (cf. **Error! Reference source not found.**).

The IWG-IFR (2009) report recognizes that the estimated opportunity costs do not include transaction costs which may be substantial. On the other hand, private opportunity cost does not necessarily reflect the incentive required to be paid as significant increase in emission reductions from forests could be achieved by improving law enforcement.

When considering the time scale, the short and even medium-term opportunity cost estimates of reduced deforestation are likely to overstate the immediate financing opportunities of REDD+. Most studies assume that institutional frameworks and capacities are readily available to immediately implement REDD+ worldwide (Lubowski 2008). The needs for financing to cover Phase 2 implementation costs and Phase 3 performance-based payment schemes are linked and therefore influence the timing for needed funding flows. If payment schemes are implemented in conditions with inadequate enabling governance conditions, this is reflected in high project-level transaction costs (see section 2.2.3).

Concerning REDD+ Phase 2, the costs of effectively implementing land reforms, land use planning and zoning and various policy and legislative reforms can easily be higher than estimated as the necessary political decisions may take long as past experience has shown (cf. Pfaff et al. 2010). Implementation costs may be spread over longer periods of time also for purely technical reasons e.g. in situations in which the country has to implement a basic land reform which may be a precondition to start incentive payment schemes for local communities or landowners.

It needs to be emphasized that policy and legal reforms are not often constrained by international financial support but by the national political will. This also concerns measures needed to address some key drivers for deforestation which are outside the forestry sector (agricultural subsidies, tax codes, energy pricing, etc.) due to legitimate conflicts of interests between sectors and stakeholder groups. Progress in these fundamental issues has an impact on financing needs as well as how they can be met and how fast REDD+ Phase 3 can be implemented on a large scale. This emphasizes the urgent need for countries to move forward in tackling all the drivers of deforestation in a systematic comprehensive manner.

The underlying assumption of opportunity costs on absence of policy failures and market distortions is not valid in most forest situations in developing countries. As Gregersen et al. (2010) have pointed out, several factors limit the use of the opportunity cost approach in the forest sector (subsistence production in shifting cultivation, the importance of the informal sector in market transactions, illegal logging and land conversion, perverse incentives for forest conversion, etc.) but these can be addressed in country-level analyses. Furthermore, the abatement cost curve approach (e.g. McKinsey 2009) which underlies many opportunity costs estimates does not usually take into account numerous non-monetary benefits to forest communities and local population who often regard these as the main incentive for conservation and management of their forests (Singh Karky & Skutch 2009). The abatement cost curve also disregards environmental services or benefits to larger areas and entire nations, or which are considered global public goods.

[22] Original estimates in euro, the exchange rate used here is EUR 1 = USD 1.35

If payments are market-based they will not be determined by opportunity costs but by the demand for, and supply of, forest carbon offsets. For these reasons, in principle, the opportunity costs as they have been calculated in the existing studies may be under-estimates. In addition, many opportunity cost analyses are carried out at fixed prices and therefore do not take into account the dynamic changes in market conditions, technology and accumulated knowledge which may lead to higher costs over time. Furthermore, the static approaches disregard the long-term costs to the nation which may be due to large-scale conversion of forest lands into other uses. Pirard (2008) has pointed out that the utility of the existing studies seems very limited to forecasting of what would be the financial requirement to act against deforestation. As opportunity cost estimates heavily depend on underlying assumptions, no definitive conclusions can be made on their usefulness for assessing financing needs while they can be useful tools for strategic planning purposes.

For this study, activity-related information on abatement costs is presently available only in two countries, i.e. the Democratic Republic of Congo and Indonesia (Table 2.7). The cost comparison shows different approaches implied in the national REDD+ strategies which, together with specificities of country situations, make direct comparison difficult. Only two similar activities appear in the two countries, i.e. afforestation and smallholder agriculture. In the former case the national-level unit costs are within the same range but in the latter case there is a large difference. The Indonesian abatement costs for forest conversion into plantations is more than twice of those of commercial agriculture in the DRC. It also needs to be recognized that national averages hide wide in-country variation as Swallow et al. (2007) have pointed out.

Table 2.7 National REDD+ Abatement Cost Estimates in DRC and Indonesia

Activity	DRC	Indonesia
	- USD/tCO_2 -	
Sustainable forest management		>2
- Intensive silviculture		10.2
- Fire prevention		6.0
Legalization of industrial and informal logging	2.0-2.5	
Combating illegal logging		
- control of border areas	8.0	
- local market oriented logging	6.5	
- reforestation for local markets	1.0-1.2	
Afforestation (labor intensive-mechanized)	3.0-4.0	5.0
Reforestation (labor intensive-mechanized)	1.0-1.5	
Natural forest conversion into		
- pulpwood plantations		28.0
- oil palm plantations		29.9
Subsistence agriculture	6.5	
Smallholder agriculture	4.8-5.0	1.0
Intensive commercial agriculture	13.0	
Livestock	0.5	
Improved household fuelwood utilization efficiency	1.5-2.0	
Mining, hydrocarbon extraction	60.0	

Sources: Rép Démocratique du Congo (2010), Dewan Nasional Perubahan Iklim (2010) : Note that Indonesia has also calculated abatement costs for peatlands which are not reported above.

Guyana´s Low Carbon Growth Strategy (Government of Guyana 2010) is not based on abatement cost as there is practically no deforestation in the country but an estimation of the "economic value" of the nation's forests to the nation and to the world (Box 4.1). The approach is based on four main components: standing timber value, post-harvest land-use

profit, savings on forest protection costs, and loss of ecosystem services. The "economic value" has been taken as the "opportunity cost" of Guyana's participation in REDD+. This is, however, different from the abatement cost approach and the results cannot be compared by those presented in Table 2.7.

2.2.3 Transaction Costs

In economics and related disciplines, a transaction cost is a cost incurred in making an economic exchange. Transaction costs are often taken to include (i) search and information costs (incurred in determining that the required good or service is available on the market, price, etc.), (ii) bargaining and negotiation costs associated with coming to an acceptable agreement and establishing the contractual arrangement, and (iii) policing and enforcement costs to ensure compliance by the parties and to take appropriate action (often through the legal system) if needed.[23] These cost elements are especially relevant to performance-based payment schemes of the REDD+ Phase 3.[24] Calmel et al. (2010) divide project-level transaction costs into (a) the costs of developing the project's carbon component to meet REDD+ methodological requirements, and (b) the costs certifying and selling the credits.

Information on REDD+ transaction costs is still limited apart from CDM projects and the costs of monitoring (see section 2.1.3). Monitoring and administration costs are incurred by the authorities implementing a REDD+ payment scheme. The other transaction costs (costs of information, negotiation, verification, etc.) would be mainly borne by buyers and sellers of REDD+ credits (Pagiola & Bosquet 2009).

Scattered information is primarily available from experience with PES schemes in Latin America and from CDM forestry projects (Transaction costs can also vary substantially across governance contexts (cf. Figure 2.4). Realizing REDD projects or schemes in weak governance settings is likely to imply higher transaction costs (both up-front and recurrent) than in settings where institutions are well functioning and rights are well defined (Bond et al. 2009). Grieg-Gran (2008) estimated the annual administration costs of payment schemes to increase total costs by 3.5 to 8 % depending on the institutional capacity of the country. Especially for small countries, transaction costs can be proportionally high compared with the expected payments.

Box 2.3). In a sample of CDM projects the mean transaction costs have been estimated at USD 0.38/tCO_2 (Antinori & Sathaye 2007). However, the average hides wide variation among projects. The available data (e.g. Calmel et al. 2010) provides support for the conclusion that start-up transaction costs (project cycle costs) can be high and there are strong economies of scale. Small projects or schemes are at a disadvantage because of the high fixed-cost element in transaction costs (including verification costs of emissions reductions). On the other hand, the data also suggests that in terms of costs per tonne of CO_2, transaction costs add only marginally to the unit emissions reduction costs in large projects.

Transaction costs can also vary substantially across governance contexts (cf. Figure 2.4). Realizing REDD projects or schemes in weak governance settings is likely to imply higher transaction costs (both up-front and recurrent) than in settings where institutions are well functioning and rights are well defined (Bond et al. 2009). Grieg-Gran (2008) estimated the annual administration costs of payment schemes to increase total costs by 3.5 to 8 %

[23] http://en.wikipedia.org/wiki/Transaction_cost. Note that there are also much broader interpretations of transaction costs than explained here.

[24] Transaction costs are also involved in any REDD+ related financing as illustrated e.g. by Figure 1.4.

depending on the institutional capacity of the country. Especially for small countries, transaction costs can be proportionally high compared with the expected payments.

Box 2.3 Transaction Costs in CDM Projects

When registering a project under the CDM, the project developer needs to cover the costs accruing during the steps of the CDM project cycle, i.e. the transaction costs. The costs for project preparation, validation and registration accrue up-front, long before any revenues from carbon credit vending can be expected. Projects need to be sufficiently large in order to justify the transaction costs. On the other hand, there are simplified modalities and procedures with lower transaction costs for small-scale projects that do not exceed 8,000 Certified Emissions Reductions (CERs) per year. For the regular large-scale projects, the most important components of transaction costs are the following:

- Project preparation (usually by a consultancy company): USD 60,000-180,000. The costs depend on the complexity, the scale of the project, and on the required technologies and expertise (local and international consultants).:
- Validation (by a Designated Operational Entity (DOE), independent accredited body): USD 15,000-25,000.
- Registration fee (by the CDM Executive Board (EB)): for the first 15,000 CERs USD 0.10/CER, thereafter USD 0.20/CER.
- Monitoring costs: depending on the project size and sample size needed, as well as on monitoring methods and intensity.
- On-going verification (by DOE): USD 15-25,000 per audit depending on the size and the complexity of the project.
- Issuance fee (by the EB): The same as registration fee but any upfront registration fee already paid is deducted.
- Adaptation levy: the EB retains 2% of the CERs generated to support adaptation in countries that will be most affected by climate change.
- Taxes (by the host country): Some countries claim a share of a project's CERs in exchange for issuing a Letter of Approval that is prerequisite to registration.

Source: Neeff & Henders (2007)

2.3 Conclusions on Needs of Financing for REDD+

The analysis of this chapter leads to the following conclusions to the questions raised in the Terms-of-Reference (Annex 1.1):

- The countries have rarely estimated the needs for all the three phases of REDD+. The most reliable estimates exist only for the readiness phase as outlined in the FCFP R-PPs and the UN-REDD NPDs.
- It appears that those countries which have identified their total needs of the three phases have used either external consultants or made rough judgmental estimates.
- Transaction costs have not been generally included in the financing needs estimates.
- Country comparisons of financing needs estimates show in many components wide variation, partly due to differing national situations (size of the country, level of preparedness, existing monitoring systems, etc.). However, part of the variation cannot be readily explained by known factors but there is no firm evidence on systematic under or over estimation of financing needs. In some cases estimation may have been influenced by lack of professional capacity which has been coupled with lack of adequate common guidance for how estimation of needs should be conducted. In some cases there is probably some element of overestimation which may be in the interest of participating countries.

- It is apparent that the review process of R-PPs and NPDs has helped to address sources of errors in country-level readiness estimates, but not in all cases. Improvement in the scrutiny of the review process may merit further consideration. While experience is accumulating and data is improving, the quality of financing needs estimates for readiness (REDD+ Phase 1) is getting more precise. It appears that the consistency of estimation between countries could be significantly improved and it would be highly desirable.
- It is possible that the presently estimated needs for REDD+ readiness may not be sufficient. Therefore, additional financing may have to be provided and this may become necessary to create confidence about sufficient financing to enable developing countries to embark and continue on the process. On the other hand, there will be a need for a fully integrated budgetary process in REDD+ countries so that reliable information is available on financing needs and to what extent the identified sources cover these needs.
- There is also evidence on consideration of on-going and planned macro-level and other related programs, including those not labeled REDD+ (see also section 5.1).
- As explained in section 5.2 it appears that the estimation of financing needs has usually been carried out by international (and to a lesser extent national) consultants as well as the staff of the lead agency. The participation of academic and research staff has apparently also contributed to the estimation in many countries.
- The mains sources of available data on needs for REDD+ readiness are FCPF R-PPs and UN-REDD NPDs. At the time of compiling information for this study, there was no other data on the financing needs as yet in the REDD+ Voluntary Data Base.

It is in the country's interest to carry out specific country and sub-national level analyses which rely on data on the varying local conditions by forest types and types of threat for deforestation (alternative use) (Pagiola and Bosquet 2009). The currently applied methodologies can serve for first approximations but due to their inherent weaknesses further work is required to address spatial variation, dynamic factors, non-monetary aspects for communities and landowners, and to avoid unrealistic economic scenarios used for policy design. The work should also cover various co-benefits from the REDD+ perspective.[25]

Realistic estimates of REDD+ implementation and transaction costs can also be prepared. There is a need to provide practical guidance and training on methodologies to facilitate the work to be carried out on the estimation of REDD+ costs (and benefits) to avoid pitfalls in policy decisions due to under or overestimation. Simulation models and sensitivity analysis should be applied in order to address risks and uncertainties. Common methodologies would enable comparisons between countries and contribute to sharing of knowledge in this area.

On a global level, in spite of the inherent weaknesses of top-down opportunity cost assessments, the IWG-IFR (2009) estimates on financing needs (USD 20 billion by 2015 towards a 25 per cent reduction in deforestation and an additional USD 4 billion for reduction of emissions from forest degradation) may be used as a reference for the time being until more realistic bottom-up estimates become available in representative situations. In due course estimates should incorporate rents and the dynamic aspects of opportunity costs and address spatial in-country variation. As Bond et al. (2009) have pointed out the current estimates probably represent a lower limit of long-term financing requirements as the opportunity costs can be expected to increase over time.

It is emphasized that existing studies do not reflect the possible benefits of alternative activities which tackle the underlying drivers of deforestation while generating economically

[25] Maintenance or enhancement of many of the REDD+ co-benefits are often preconditions for achieving the REDD+ objectives; they should not be treated only as "co-benefits".

productive activities and associated long-term employment and income. Domestic-led investment strategies should tap such opportunities by investing and reinvesting in these alternative activities. This would help secure the long-term sustainability of the REDD+ payment schemes within the UNFCCC framework and ensure that national REDD+ strategies will not lead to an unrealistic financing burden in the long run.

Finally, while the financing needs have been discussed above in the sequential order of REDD+ phases, it is re-emphasized that they can and often should be implemented in parallel. Tackling drivers of deforestation and forest degradation is an urgent issue and should not be perceived as something to be taken up only in the longer run. It is the precondition for successful implementation of REDD+.

3. SOURCES OF FINANCING FOR REDD+

3.1 Overview of Financing Sources

In this chapter we first review the presence of various REDD+ financing sources in developing countries. These sources include: (i) bilateral donor agencies, (ii) multilateral and regional financing institutions and initiatives, (iii) domestic public funding, (iv) the private sector, and (v) civil society organizations. There are also other sources like philanthropic foundations but only very partial information is available on them (cf. Simula 2008). Sections 3.2 to 3.6 provide information on sources and recipients of external sources (i), (ii) and (iv). Domestic financing is discussed in section 3.7 and the private sector as a source of financing in section 3.8.

Annex 3.1 provides an overview of the current situation showing that at least 67 countries participate in, or receive support from various financing sources related to REDD+. The REDD+ Partnership has 51 recipient country members[26] out of which nine do not receive any REDD+ related assistance for the time being according to the available information.[27] The broadest country coverage in the current flows (from 2008 onwards) is by GEF (currently 40 countries but the number of eligible countries is 144), followed by bilateral programs and FCPF (38 countries).

The UN-REDD has 9 direct recipient countries (earlier called pilot countries) and 19 partner countries. Three big US-based NGOs[28] extend their REDD+ activities to 22 countries. The Clean Development Mechanism (CDM) forest projects are found in 17 countries. The Congo Basin Forest Fund (CBFF) has not yet formally decided the number of eligible countries but it is expected to be 10. The Forest Investment Program (FIP) has eight pilot countries. The ITTO REDDES program has so far supported eight countries but could extend its support to all the eligible producing member countries of the Organization. Table 3.1 illustrates in a simplified manner how various funding sources contribute to the three phases of the REDD+ process.[29]

Based on the available (incomplete) information, the total amount of REDD+ funding sources from 2008 onwards is estimated at USD 7.2 billion. This includes accumulated funding by 2010 and what is available from the presently programmed public sources for REDD+. In addition to public sector financing, the figure includes the global forest carbon markets which have generated about USD 150 million (see section 3.8). The figure does not include non-

[26] Including Mexico which an OECD member and Belize which joined in October 2010.

[27] Belize, Burundi, Dominica, Pakistan, the Republic of Korea, Sao Tomé & Principe, Sierra Leone, the Republic of South Africa and Togo do not receive any REDD+ related funding.

[28] Conservation International (CI), The Nature Conservancy (TNC) and Wildlife Conservation Society (WCS)

[29] This does not include funding flows from bilateral and multilateral sources which go through NGOs.

programmed part of the Fast-Start funding of donors for the period 2010-2012 (see section 3.4).

The public sector external REDD+ funding from 2008 onwards is estimated at USD 7.0 billion which is distributed between channels as indicated in Table 3.2 and Figure 3.1. The largest source is bilateral designated country specific programs and projects which account for two thirds of the total. Multilateral REDD+ programs contribute 27% and the rest is financed through various international and regional programs which may include intergovernmental organizations as executing bodies or are administered as bilateral initiatives.

Table 3.1 Participation of Main Funding Sources in the REDD+ Phases

Programs	Phase 1	Phase 2	Phase 3
Bilateral programmes			
FCPF			
UN-REDD			
FIP			
GEF			
REDDES			
CBFF			
Amazon Fund			
Private sector			
Philanthropy			

Note: This table is for illustration of the current areas of focus and should not be interpreted for what various REDD+ sources may support in the future

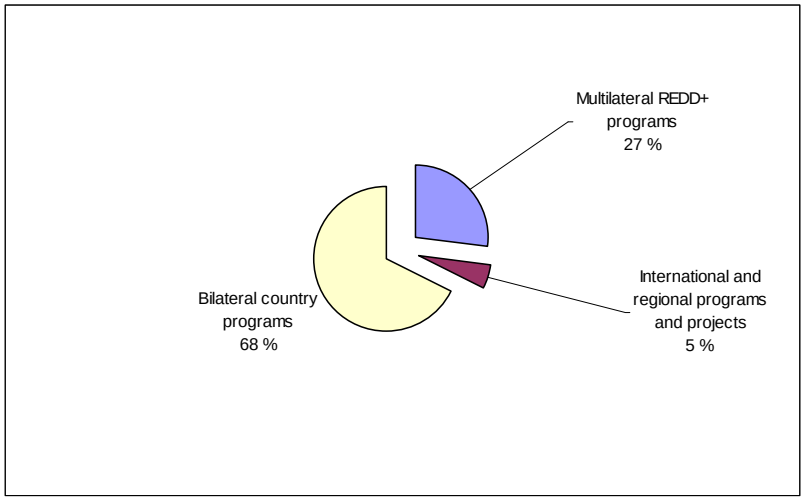
Table 3.2 External Public Sector Financing REDD+ by Type of Source from 2008 Onwards

Source/channel	USD million	%
Multilateral REDD+ programs	1, 903.0	27.0
International and regional programs and projects	380.0	5.4
Bilateral country programs and projects	4,764.6	67.6
Total	**7,047.6**	**100.0**

Sources: Table 3.3 for bilateral country programs and projects, and Table 3.4 for multilateral and other channels.

The figures of total funding from 2008 onwards represent programmed commitments (not necessarily spent). Care needs to be exercised in analyzing these figures as reporting by donors refers to different time periods, generally within the overall general period from 2008 to 2012 (pre and Fast Start), but sometimes up to 2015 (post Fast Start). The data is not complete and donors have interpreted their REDD+ financing in different ways. Some donors have provided figures for finance spent and others for programmed commitments (e.g. Norway, UK, USA). Furthermore, the non-programmed part of Fast Start pledges are not reflected in these figures as they have not yet been allocated among main channels of

Figure 3.1 External Public Sector Financing for REDD+ by Type of Source from 2008 Onwards



Total USD 7.0 billion
Source: Table 3.2

disbursement and recipient countries, and financial agreements have not yet been concluded.[30]

The largest external public sector sources of REDD+ financing are Norway (46% of the total) and Japan (24%). The rest is divided between 13 donor countries (Figure 3.2, Table 3.3). For the largest donors bilateral country programs are particularly important channels of fund delivery while some others (e.g. UK and USA) emphasize the role of multilateral organizations and international/regional programs. The financing flows are almost exclusively grant funding; only Japan and France have included some large sectoral loans in their data.

3.2 Available Financing from Multilateral, International and Regional Programs

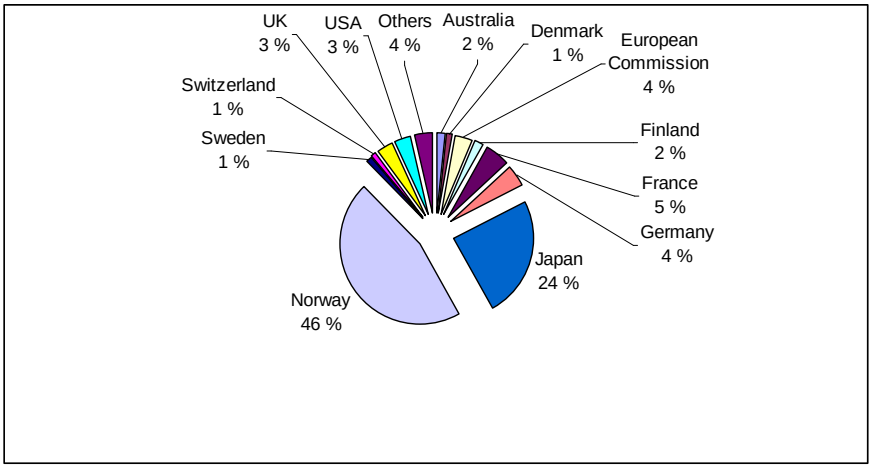
The total amount from multilateral, international and regional programs that is presently estimated to be available for REDD+ is about USD 2.3 billion which includes what has been provided since 2008 (Table 3.4 and Figure 3.3).

The largest mechanism has been GEF-4 with the total support of about USD 182 million since 2008. The GEF-5 can provide up to USD 1 billion through its SFM/REDD+ program which includes the GEF incentive mechanism of USD 250 million and up to USD 750 million from the System for Transparent Allocation of Resources (STAR) depending on country allocations (Annex 3.2). In Table 3.4 it has been assumed that the STAR allocations will amount to USD 500 million. The GEF operates under the UNFCCC and its projects are implemented through the multilateral development banks, FAO, UNDP and UNEP.

The second largest multilateral source is expected to be the Forest Investment Program (FIP) operated by the World Bank and regional development banks (CIF 2009). The current commitments of the Program amount to USD 588 million but no major investments have been undertaken as yet. While the other multilateral programs are providing grant funding, FIP will provide a mixture of grants and loans.

[30] See discussion on this issue in sections 1.3 and 3.4.

Figure 3.2 Sources of Financing of Multilateral, International, Regional and Bilateral Country Programs for REDD+ from 2008 Onwards



Total USD 6,178 million

Source: Table 3.3 The total here does not cover all the expected contributions to the multilateral programs, notably GEF. See Annex 3.2 for details.

Table 3.3 Financing of Multilateral, International, Regional and Bilateral Country Programs for REDD+ from 2008

Source	Multilateral	Bilateral	Total	Multilateral	Bilateral	Total
	- USD million -			- % -		
Australia	35.8	67.4	103.2	2.5	1.4	1.7
Belgium	10.0		10.0	0.7	0,0	0.2
Canada	40.0		40.0	2.8	0,0	0.6
Denmark	52.2	17,3	69.5	3.7	0,4	1.1
European Commission	92.1	134.1	226.2	6.5	2.8	3.7
Finland	42.7	56.4	99.1	3.0	1.2	1.6
France	42.0	269.4	311.4	3.0	5.7	5.0
Germany	59.2	220.3	279.5	4.2	4.6	4.5
Japan	70.2	1,456.0	1,526.2	5.0	30.6	24.7
Netherlands	20.0		20.0	1.4	0.0	0.3
Norway	539.8	2,326.6	2,866.4	38.2	48.8	46.4
Sweden	39.3	34.3	73.6	2.8	0.7	1.2
Spain	38.2		38.2	2.7	0.0	0.6
Switzerland	36.8	23.4	60.2	2.6	0.5	1.0
UK	164.5	29.0	193.5	11.6	0.6	3.1
USA	126.1	85.6	211.7	8.9	1.8	3.4
Others	5.0	44.8	49.8	0.4	0.9	0.8
Total	**1,413.9**	**4,764.6**	**6,178.5**	**100.0**	**100.0**	**100.0**

Sources: Annexes 3.2 and 3.3

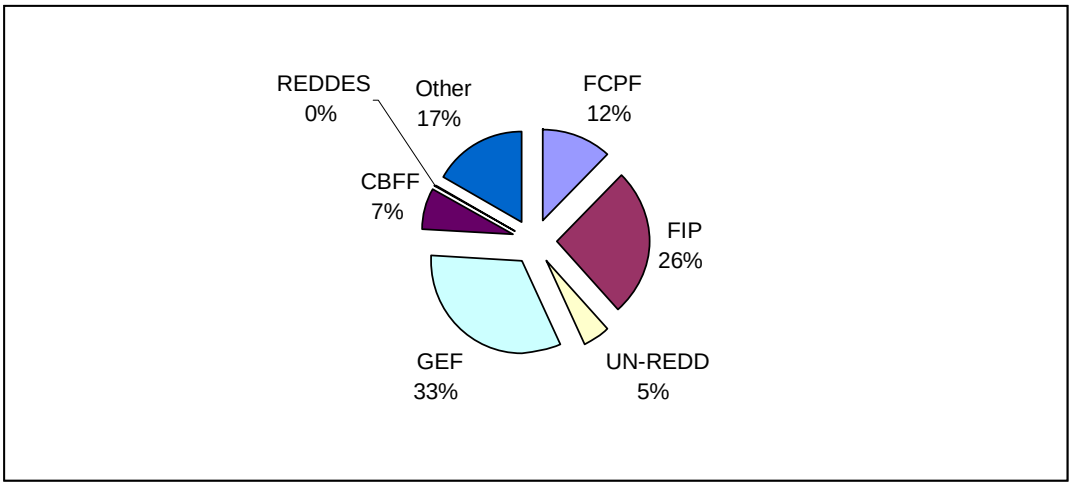
Note: Multilateral financing and international and regional programs are included in the column Multilateral. The total multilateral funding in this table is less than the total in Annex 3.2 as only part of the GEF contributions to GEF SFM REDD+ program are here accounted by donors. See also the footnotes in Annexes 3.2 and 3.3. Others include funding by three US-based NGOs.

Table 3.4 Available Funding for REDD+ from Multilateral, International and Regional Programs 2010

Program	USD million	%
FCPF	285.7	12.5
FIP	588.0	25.8
UN-REDD	108.5	4.8
GEF	750.0	32,8
CBFF	166.6	7.3
REDDES	4.4	0.2
Other international and regional programs	380.0	16.6
Total	**2,283.2**	**100.0**

Source: Annex 3.2

Figure 3.3 Available REDD+ Funding by Multilateral, International and Regional Programs from 2008 Onwards



Total USD 2,283 million
Source: Annex 3.2

FCPF's Readiness Fund has commitments of USD 210 million and its Carbon Fund USD 76 million. The contributions to UN-REDD are presently estimated at USD 108 million but the Programme's funding target is USD 350-400 million. ITTO's REDDES program has had a committed funding of only USD 4.4 million but it will to be doubled in 2011. Among regional initiatives, the Congo Basin Forest Fund (CBFF) is the largest source (USD 167 million). It is also important to note that various other international and regional programs contribute another USD 380 million to REDD+ implementation representing 17% of the total funding through various multilateral, international and regional channels (Annex 3.2.). The largest component in this group is Norway's support program to civil society organizations (USD 110 mill.) followed by the US bilateral funding of USD 81 million to various global and regional programs.

The data on individual contributions to multilateral programs by bilateral sources in Annex 3.2 indicates that there are differences between what is reported by the programs and what is reported by donors. The main source of discrepancies is probably that the programs tend to report on pledges and donors often report only on what is committed as agreed amounts within the national budget cycles. Another source of difference is variation in exchange rates.

The above information on multilateral and regional sources does not include large funding flows to forests from the World Bank Group, regional development banks and other intergovernmental sources. These funding flows were estimated at about USD 800 million per year in 2005-2007 (Simula 2008). This financing is often related to REDD+ objectives and programs continue and some have even been expanded. As appropriate, these flows should be included in the data in future analyses as they complement new REDD+ specific instruments like FCPF, FIP, UN-REDD, GEF-5 SFM/REDD+ Program, ITTO REDDES, etc.

3.3 Available Financing from Bilateral Programs and Projects

The total amount from bilateral programs and projects that is presently estimated to be available for REDD+ is about USD 4.8 billion which includes what has been provided since 2008 (Table 3.3). The actual figure is, however, somewhat larger as the presently available information in the REDD+ Voluntary Database did not cover all donor sources when this study was compiled.

Because of the Norwegian long-term commitments to the Amazon Fund (about USD 1 billion), the Guyana REDD+ Investment Fund (GRIF) (USD 250 million), and to the phased implementation of REDD+ in Indonesia (USD 1 billion) and Tanzania (USD 72 million), the country's share of the total bilateral funding is almost a half of the total (Table 3.3). Japan is the second largest source of country-specific bilateral programs (31%), followed by France (5.7%), Germany (4.6%) and the European Commission (2.8%) with the seven other donors included in data providing smaller contributions.[31]

3.4 Availability of Fast-Start Financing for REDD+

The bilateral commitments to the Fast Start REDD+ financing made in 2010 are listed in Table 3.5 which is based on the REDD+ Financing and Activities Survey, replies received of the donor survey launched for this study and consultations with some donor agencies.[32] The commitments have been made in local currencies and therefore the US dollar amounts in Table 3.5 can be considered approximate figures.

The total amount of the commitments is about USD 4.3 billion which indicates that there has been a significant increase compared to the situation in May 2010. Almost fifty percent of the total will be provided by Norway and the United States (USD 1 billion or 23% of the total each). and Japan will provide about half a billion US dollars, Germany USD 460 million, the United Kingdom USD 475 million, and France about USD 330 million. These six countries account for 88% of the total commitments while the rest is shared by eight other sources (Figure 3.4).

Table 3.5 refers partly to pledges made for the fast start period and partly to what has been programmed for the same period. An attempt was made to analyze how much of the pledges made still remains to be programmed. As this could not be systematically done for all the donors, a comprehensive picture of the situation could not be provided. However, it can be concluded that a significant share of the fast start financing for REDD+ is still in planning process for 2011-2012. This issue remains to be clarified through future studies.

31 As noted above, the French and Japanese data includes some sectoral loans.

32 It is noted that some RED+ funds were pledged and disbursed prior to 2010 and they should not be part of the figures reported in this section.

3.5 Available Financing from NGO Sources

The available financing for REDD+ activities from the three US-based NGOs[33] is about USD 45 million.[34] A significant part of funding of these programs comes from bilateral sources.[35] WWF has also released information on significant support to REDD+ but detailed information is lacking. In general, the data on NGO sources is grossly incomplete as a large number of national and international NGOs in developed and developing counties are already working in the area of REDD+. Further studies are needed to obtain a comprehensive picture of the situation of REDD+ funding by and through NGOs.

Table 3.5 Bilateral Commitments to the REDD+ during Fast Start Period 2010-2012

Country	Commitments USD million	Details
Australia	120.0	Australia's total fast-start contribution for REDD+ is AUD146 million, which includes the USD 120 million contributions announced in COP-15 in Copenhagen.
Belgium	13.5	Belgium has pledged 10 million EUR to REDD+ in 2010. This amount can be considered as new and additional to 2009.
Canada	40.0	This contribution for 2010 is through the FCPF and comes entirely from new and additional funds, as part of Canada's $400 million contribution in 2010 to fast-start financing under the Copenhagen Accord.
Denmark	16.5	This (minimum) amount only includes multilateral contributions for 2010. Potential contributions for 2011 are not yet determined.
European Commission	175.2	Bilateral and regional commitments to REDD+ in 2010 and forecast. In 2010 the EU has mobilized USD 489 million (EUR 362 million) in fast-start funding for REDD+ (European Union 2010).
Finland	51.6	The presently programmed commitments to REDD+ during the fast start period both through multilateral and bilateral channels.
France	332.0	France committed EUR 246 million for the fast-start period. This represents 20% of France's total fast start funding commitment.
Germany	459.8	At least EUR 350 million will be allocated to REDD+. The total amount is additional.*).
Japan	500.0	Japan pledged USD 500 million for REDD+ assistance (including bilateral/multilateral) from 2010 to 2012 at COP 15.
Norway	1,000.0	Norway has pledged USD1 billion for REDD+ over the fast-start period.
Spain	18.9-37.8	Fast start funding approved by Council of Ministries for REDD+ in 2010 will be between EUR 14 million and EUR 28 million.
Sweden	73.5	Both through multilateral and bilateral channels
United Kingdom	475.0	The UK has pledged £300m for the Fast Start period.
United States	1,000.0	The US intends to dedicate USD 1 billion for REDD+ over the fast-start period; preliminary figures for 2010 and 2011 are not yet complete, but include at least USD 536 million.
Total	**4,276.0-4,294.9**	

*) In relation to fast-start finance, the German government defines additionality in terms of: (a) the additionality of climate-related funds compared to a basis year of 2009, and/or (b) the additionality of income derived from innovative financing instruments such as revenue from the sale of certificates within the European ETS.

Sources: *Synthesis Report: REDD+ Financing and Activities Survey*, prepared by an intergovernmental taskforce (2010) and donor survey responses.

33 Conservation International, The Nature Conservancy and Wildlife Conservation Society

34 This figure is compiled based on the VRD data

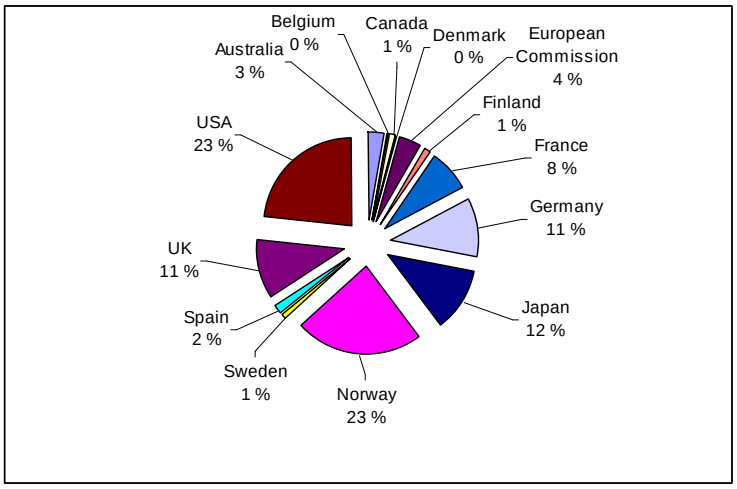
35 This can be deducted from the data in the VRD and the organization websites.

3.6 Recipient Countries of Available External Financing for REDD+

The REDD+ financing through various delivery channels presently reaches only a total of about 67 countries. (Annex 3.3) and (Figure 3.5). However, the existing channels provide an access to REDD+ financing for all interested countries.

Multilateral and bilateral financing complement each other as 27 countries receive funding from either of these sources while another 40 are able to tap both sources. This complementarity is important to note as without it there would be many country gaps in the financing flows (see Annex 3.1). On the other hand, there are at least nine countries which have no access to REDD+ financing for the time being; a number of them are presently members of the REDD+ Partnership. These countries include five small island development states (SIDS).[36]

Figure 3.4 Bilateral Commitments to the REDD+ during Fast Start Period 2010-2012

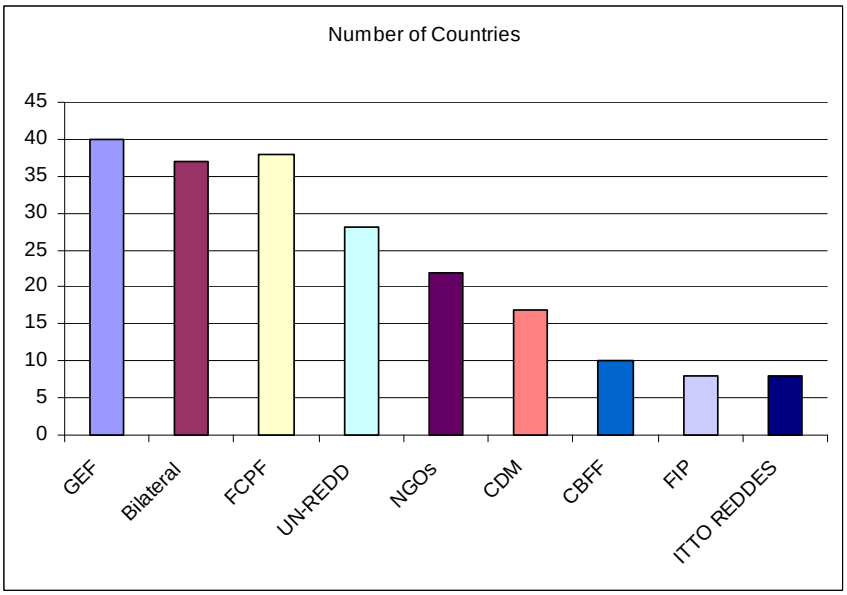


In spite of the fairly broad geographic coverage, the REDD+ financing is relatively heavily concentrated among a few main recipient countries. Indonesia receives 30% of the total country-specific funding for REDD+ followed by Brazil with 23%. This is consistent with the objective of trying to address global deforestation quickly through major efforts in countries with large areas deforested per year (see also section 4.1). The third largest recipient country is India (19%) and the three countries combined receive more than 70% of the total country-specific financing flows to the 67 recipients (Figure 3.6). Fifteen largest recipient countries absorb about 90% of the total. (Annex 3.3).

During the initial years country level support is mainly needed for REDD+ readiness (Phase 1) and implementation of policy reforms and other measures (Phase 2). If financing flows become large in the short run as indicated in the previous sections, the question can be raised about the effectiveness of fund utilization and the absorptive capacity of many recipient countries which do not have adequate governance and enabling policy conditions to start large-scale implementation of REDD+. There are also risks for an unsustainable funding

[36] Germany is supporting or planning to support several small island development states in the Pacific region in the field of REDD. The UNFF Facilitative Process is also focusing on SIDS countries.

Figure 3.5 Country Coverage of REDD+ Related Funding Sources



Note: NGOs refer only to the three US-based organizations (CI, TNC, CI). There are many other NGOs which are involved in REDD+ related activities but information on them is not available in VDR or other sources.

system or even negative impacts on governance (cf. e.g. REDDnet 2010). It is critical for all the development partners that the REDD+ funding is used in a proper way to ensure that mobilization of large-scale financing will not be compromised by inefficiency and ineffectiveness in fund utilization.

3.7 Financing from Domestic Sources

Some developing countries have also reported to the VRD on their own financing to REDD+ implementation (Annex 3.4). Most of the information is still lacking and further work is needed for data collection and analysis. However, domestic funding is an important source for REDD+ implementation. For instance, in 1998-2009 China increased its total annual financing for forests from RMB13.53 to 137.79 billion (USD 20.7 bill.), mostly from domestic public sources, about a half of which was invested in afforestation and reforestation (Guangcui 2010).

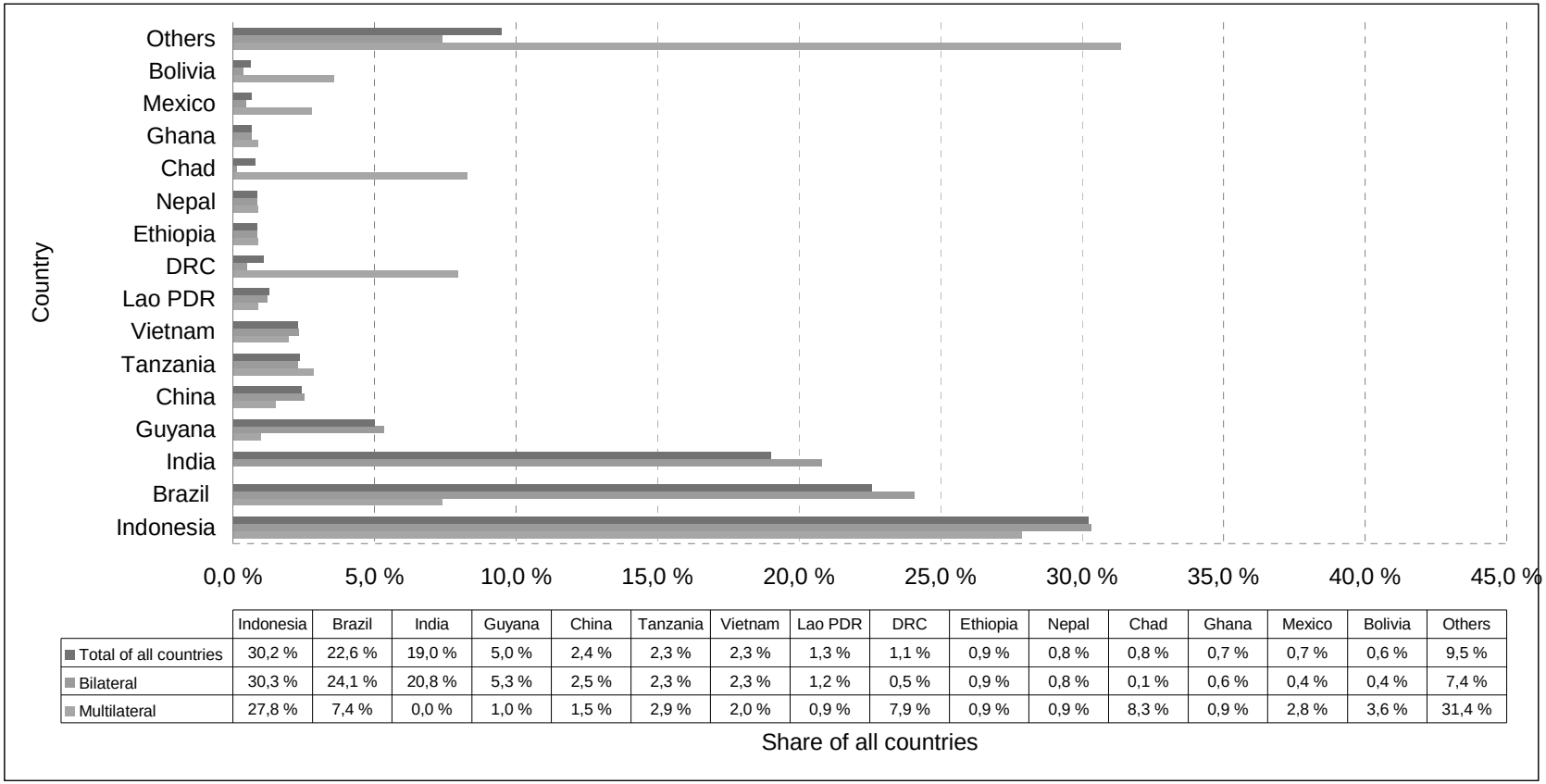
With regard to REDD+ Phase 1, the R-PP budgets suggest that the domestic financing would contribute a total of about USD 40 million to the REDD+ readiness in 16 countries representing 21% of the total needs (cf. section 4.1). [37]

3.8 Private Sector and Carbon Markets as a Source of Financing for REDD+

Most of the private sector financing for REDD+ related activities has come through the voluntary carbon markets (section 3.8.1). There is also some other financing targeted at demonstration projects which may generate carbon credits later on (section 3.8.2). Some

[37] Details on domestic financing in the FCPF R-PPs for REDD+ readiness is given in Annex 4.1.

Figure 3.6 Main Recipients of External REDD+ Financing



	Indonesia	Brazil	India	Guyana	China	Tanzania	Vietnam	Lao PDR	DRC	Ethiopia	Nepal	Chad	Ghana	Mexico	Bolivia	Others
Total of all countries	30,2 %	22,6 %	19,0 %	5,0 %	2,4 %	2,3 %	2,3 %	1,3 %	1,1 %	0,9 %	0,8 %	0,8 %	0,7 %	0,7 %	0,6 %	9,5 %
Bilateral	30,3 %	24,1 %	20,8 %	5,3 %	2,5 %	2,3 %	2,3 %	1,2 %	0,5 %	0,9 %	0,8 %	0,1 %	0,6 %	0,4 %	0,4 %	7,4 %
Multilateral	27,8 %	7,4 %	0,0 %	1,0 %	1,5 %	2,9 %	2,0 %	0,9 %	7,9 %	0,9 %	0,9 %	8,3 %	0,9 %	2,8 %	3,6 %	31,4 %

Source: Annex 3.3.

overlap between the two types of investments cannot be avoided due to the data constraints. This chapter could not provide comprehensive quantitative information on private sector financing which is motivated by corporate social responsibility and similar goals which are considered potentially significant drivers. Some of such funding flows are directed to voluntary carbon markets but there are also other types of investments. Unfortunately, only anecdotal information is available on them.

Another potentially large source of private investments in REDD+ is specialized forest investment funds and timberland investment management organizations (TIMOs). There are presently about 50 such organizations working in operation and several others in the planning phase. During the last ten years, the value of forest investments has continued the rapid growth. Institutional investments in timberland in 2005-2006 were estimated to be USD 15-30 billion, of which 91% in North America, 5% in Oceania and less than 4% in emerging markets (Clutter et al. 2005). Already in 2008 the volume had increased to USD 50 billion (Neilson 2008). At present, the investor capital placed in timberland is estimated at USD 70-80 billion, of which over 70% is in the United States (Haltia et al. 2010; Dasos 2009).Emerging markets' share of the timberland investments has grown being driven by adequate return/risk combinations (Lehtonen 2010). Climate change mitigation and demand for wood-based energy are the key new factors which have enhanced emerging markets' attractiveness for forest investments.

3.8.1 Forest Carbon Markets

Forest carbon markets have developed slowly since the early 1990s although the start was very promising. The total value the global forest carbon market has been estimated at USD 149.2 million with carbon offsets of 20.8 million tCO_2 generated by 226 projects (Hamilton et al. 2010)[38]. The area covered by these projects is estimated at 1.7 million hectares. Most of the market volume (73%) is transacted under voluntary systems and the rest in the regulated markets. Developing countries participate in both market segments through over-the-counter voluntary (OTC) deals and through afforestation and reforestation (A/R) projects under the Kyoto Protocol.

Voluntary markets

The voluntary market is mainly driven by purely voluntary motivations but during the last few years pre-compliance buyers have shown an increasing interest. Most of project developers (53%) are non-profit organizations, the private sector accounts for 40%, and the rest are developed by public sector organizations. The volume transacted comes mainly from A/R projects but two thirds of the area covered is under REDD projects (Figure 3.7).

The eleven REDD+ projects cover a total area of 1.1 million hectares but their contribution to carbon offsets is relatively low, only 3.1 million tCO_2 valued at USD 41.6 million. Five of the REDD+ projects were located in Latin America and the others in Africa, Asia, North America and Oceania. (Hamilton et al 2010).

Five REDD+ projects are implemented in concession forests to enhance carbon stocks in existing forests generating 1.1 mill. tCO_2 valued at USD 10 million. There are also seven projects with combined activities in A/R, REDD and/or improved forest management for enhancement of carbon storage. The total value of these transactions was USD 5.5 million.

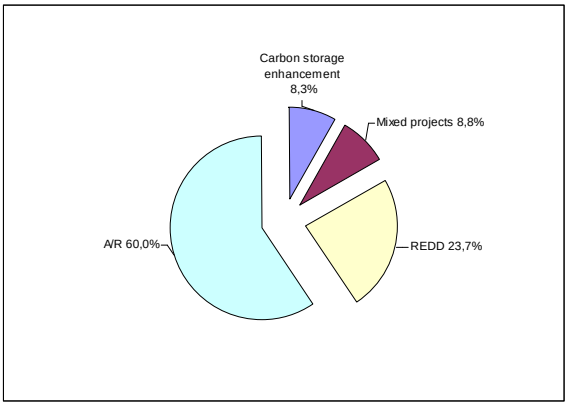
[38] There is an element of double counting in these estimates (Ecosecurities 2010).

These projects are located in Mexico, Ecuador, Brazil, Uganda and Madagascar (Hamilton et al 2010).[39]

Figure 3.7 Voluntary Carbon Markets in 2009

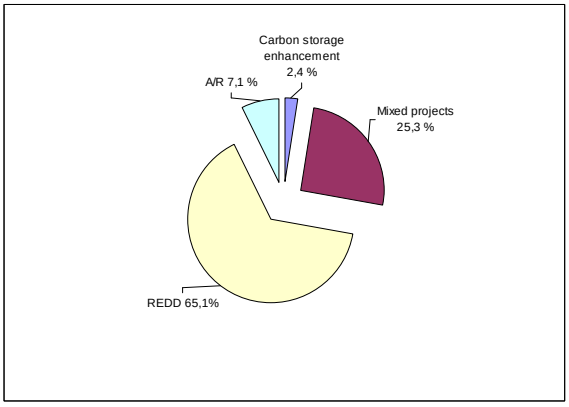
Type of projects (all regions)

Volume transacted



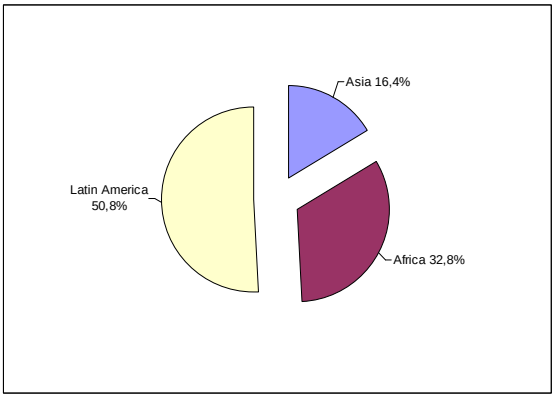
Total 13.1 mill. tCO_2

Area covered by type of project



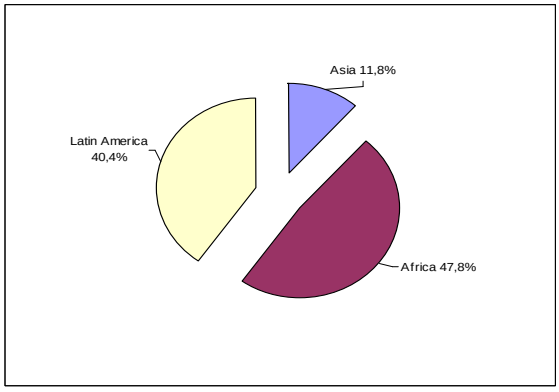
Regional distribution between developing regions

Volume transacted



Total 6.2 mill. tCO_2 included in the analysis

Areas covered in developing regions



Total 1.66 million ha

Source: Elaborated based on data in Hamilton et al. (2010)

The 183 A/R projects cover 122,390 ha generating 7.8 million tCO_2 accounting for 59% of the total volume transacted. The transacted value was USD 52.2 million or about USD 10 million more than that of the REDD+ projects with a total area of about one tenth. The A/R projects are smaller in size than REDD+ activities. Most of the projects used indigenous species in planting. (Hamilton et al 2010).

Merger (2010) analyzed 118 A/R projects currently being developed or implemented providing an indication of potential supply. These projects cover a total area of 655,000 ha estimated to generate credits of 140 million tCO_2 over the next 50 years (2.8 mill. tCO_2 per year). Their regional breakdown is given in Figure 3.7 showing that all the developing regions are well represented in the potential supply chain. In fact, the potential supply for A/R

[39] There is also one project in the USA.

projects in developing countries is huge but at present there are many barriers for this potential to be tapped.

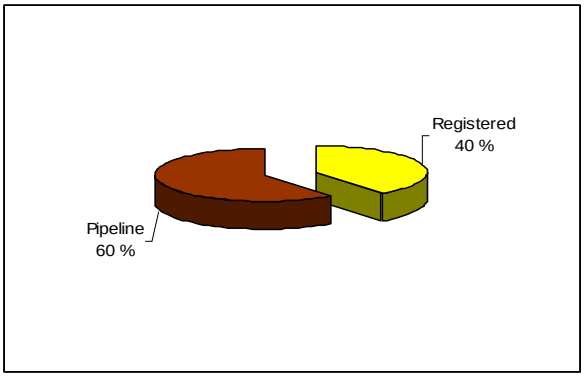
Regionally, 38% of the voluntary forest carbon markets are transacted in North America, 23% in Latin America and 15% in Africa, followed by Asia (Hamilton et al 2010). However, the developing regions account for 98% of the total area of forest carbon projects. It is expected that the growth will be particularly rapid in Asia through national initiatives such as the Green Carbon Fund in China with the participation of the State Forestry Authority and China Green Foundation. There is also a large number of projects which are at planning stage elsewhere in Asia (Wertz-Kanounnikoff & Kongphan-apirak 2009).

Regulatory markets

By the end of October 2010 17 A/R projects had been registered by the CDM representing about one per cent of the total credit volume of the Mechanism. However, there were 26 projects in the validation pipeline (Figure 3.8). Apart from two of the registered projects, all are located in 18 developing countries (Annexes 3.1 and 3.6). Most of these projects are fairly small and the largest projects are found in China and Brazil. Six projects have been financed by the BioCarbon Fund as private funding could not be made available.

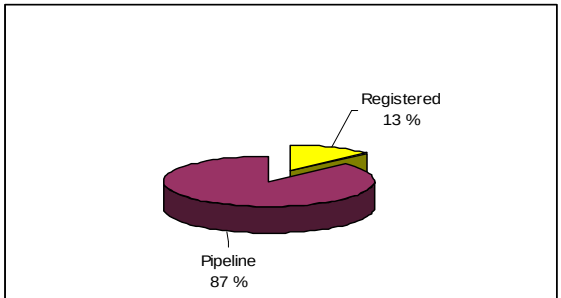
Figure 3.8 Registered and Pipeline CDM A/R Projects (October 2010)

Number of projects



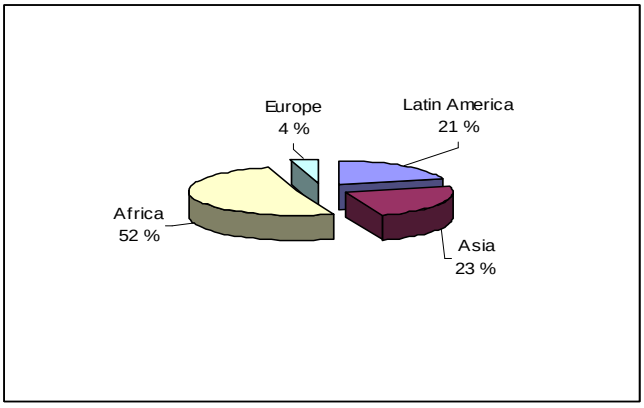
Total 43 projects

Reductions



Total reductions 4.9 mill. tCO_2

Regional distribution of reductions



The development of the CDM A/R market has been constrained by high transaction costs, lack of demand, and the temporary nature of forest credits. The market is, however, growing now as demonstrated by the CDM validation pipeline. It has been estimated that in 2010 up to 30 projects could come on stream (Merger 2010).

3.8.2 Private Sector Participation in Demonstration Activities

Table 3.6 provides an overview on the sources of financing in 32 REDD+ demonstration activities based on the CIFOR (2009) survey (Wertz-Kanounnikoff & Konghan-apirak 2009). While almost a half of these projects were (or will be) financed by the public sector only, almost all of the others had some sort of private sector participation either as a sole source of funding or as a member of partnerships with NGOs or the public sector. Partnerships appear to be feasible or even necessary in many cases as each party bring in inputs of her/his particular competence or resources.

Annex 3.6 provides more detailed information on the participation of the private sector in REDD+ demonstration activities. Most of these projects have specific (often tentatively) quantified carbon emissions reductions as a goal. However, social and biodiversity co-benefits are important as they appear among objectives in most projects.

Projects are usually long term, from 10 to 25 years but in some cases up to 40 or 50 years. However, funding is typically available for the initial phase only. Large areas are covered by most projects, particularly in the case of protected areas.

The types of private investors in demonstration activities include energy and mining companies, and the financing sector but there are also examples from other sectors like tobacco, retailing, trading and multi-sectoral industrial groups. Annex 3.6 lists only a small sample of private sector participation in SFM financing and therefore the information should be completed in future studies.

As a conclusion, the private sector financing in REDD+ demonstration activities is still incipient and could be further promoted. As most potential investors are lacking specific

Table 3.6 Sources of Funding in REDD+ Demonstration Projects

Country	Public	Private	NGO	Mixed	Total
	Number of projects				
Cambodia				1	1
Indonesia	4	2	2	1	9
Cameroon	1				1
Madagascar	2			1	3
Brazil		2	1	2	5
Costa Rica	1			1	2
Ecuador	2				2
El Salvador				1	1
Guatemala		1		1	2
Honduras	1				1
Mexico	1			1	2
Panama				1	1
Peru	2				2
Total	**14**	**5**	**3**	**10**	**32**

Source: Wertz-Kanounnikoff & Kongphan-apirak (2009); only projects with adequate information on funding sources included.

forestry knowledge, there is a need for creating interface between them and field level opportunities. NGOs have played an important role in this respect which should be enhanced further. The Meru Petripi National Park project in Indonesia (financed by 7&I Holdings from Japan) demonstrates that international organizations (in this case ITTO) can also act as an effective interface between investors and local stakeholders.

3.8.3 Supply and Demand Prospects for Private Sector Financing

The slow development of the forest carbon markets has been due to a variety of reasons: (i) regulatory limitations and high transaction costs in the compliance market as demonstrated by the token number of CDM-registered forest projects, (ii) uncertainty about the post-2012 arrangements which has kept the pre-compliance demand fairly low, and (iii) inherent characteristics of forestry offsets (issues related to permanence, leakage, and investment risks) (Hamilton et al. 2010). In the compliance markets two additional reasons are important: (iv) only a small proportion of potential forestry projects are eligible for credits i.e. only A/R activities and not avoided deforestation; and (v) the exclusion of forest credits in the EU Emission Trading System.

Nevertheless, about 40 developing countries have already gained some experience in the development of projects for carbon offset trade but the level of transactions is still low. A significant area of forest land is already under various arrangements. The “pipelines” of both REDD+ and A/R projects (Wertz-Kanounnikoff & Kongphan-apirak 2009) suggest that a significant increase in supply can be created within a short period of time were there clarity about the future rules of forest carbon trade. In particular, REDD+ projects could have a major impact on the area and the amount of offsets in the short run while in A/R projects the volume of offsets will mature in longer term but financial arrangements can address this as e.g., the experience gained by the BioCarbon Fund has shown.

On the demand side, most of the private sector participation in the forest carbon markets has come from the United States, mainly because of the Chicago Climate Exchange (CCX). However, many hurdles in the international and legal frameworks as well as local capacity constraints would need to be removed before forest carbon can become a broadly accepted asset by the private sector. Few developing countries (e.g. Brazil, Chile, China, India) meet the standards needed to develop domestic market mechanisms but even they face significant challenges in terms of adjustment of the legal, institutional and governance framework (O’Sullivan et al. 2010).

The potential demand is coming from a broad range of sectors including energy and utilities, environment, transport and aviation, professional services, financial services, retailing, information technology and others as well as companies which are or will be facing carbon emission compliance. Key demand drivers have been (i) cost reductions and costing of carbon emissions in corporate accounting, (ii) corporate social responsibility, (iii) preparation for compliance markets, (iv) green marketing, and (v) managing reputational and commercial risks. Co-benefits of carbon projects have also been important for many investors (Ecosecurities 2010).

In spite of the general positive attitude towards forest carbon offsets, many potential investors have a negative or mixed attitude. This is particularly the case among European companies which are less active in this field than North Americans (Ecosecurities 2010). In addition to adequate country governance, the private sector involvement in REDD+ investments requires reduction of investment risk and raising finance. Guarantees and insurance can address some sources of risk, and securitization and bonds can help mobilize necessary upfront finance. These services have not been adequately developed for REDD+ transactions but their building up is necessary for ensuring large-scale private sector

financing through performance-based payments (O'Sullivan et al. 2010).[40] It is, however, clear that a CDM-type project-based arrangement will not be the solution to deblock the potential demand which could benefit many countries that cannot otherwise have access to forest financing. This is also demonstrated by the fact that the BioCarbon Fund has been the source of financing for several CDM projects due to absence of private sector interest caused by uncertainties about the quality of forest credits.

New national schemes are emerging to make it possible to include REDD+ activities in carbon offset trade. Japan has launched a bilateral offset mechanism which is implemented within agreements with participating developing country governments by the private sector. The first four private sector REDD+ projects in Asia and Latin America are under preparation (Hirota 2010). In the United States, the State of California will allow offsets from international forest carbon offsets into its cap-and-trade scheme beginning in January 2012. This kind of initiatives will have a positive impact on REDD+ financing and they are likely to spread to other countries. A major impact on demand would occur were it possible to include forest carbon offsets in the European Union Emissions Trading Scheme.

Developing countries are also in the process of developing their own carbon offset schemes which is motivated by the need to meet their own commitments in emissions reduction. Brazil, for instance, is currently in the process of approving a national bill on certified reduction of emissions from deforestation and degradation. The bill would allow for market-based transactions and reserves a role for private investments; it will be voted on in the near future. Inspired by the positive initial experience of the Amazon Fund, the Brazilian national development bank BNDES is about to launch a large forest investment fund as a public-private partnership which will invest in forest assets in the country considering all the potential benefits of such investments, including climate mitigation (Weguelin 2010).
Creating supply to meet the future demand for forest credits offers major opportunities for investment by the private sector, both domestic and international. These opportunities are crucial for scaling up financing to meet the estimated needs in REDD+ Phase 3 but several barriers have to be removed.

3.9 Conclusions on REDD+ Financing Sources

The donor support is presently directed to the REDD+ Phase 1 (readiness) and implementation of activities which can be part of the REDD+ national strategies (Phase 2) including demonstration activities, capacity building, etc. There is no donor support identified to REDD+ Phase 3 apart from the large bilateral programs of Norway in Brazil, Indonesia and Guyana and various demonstration projects in a number of other countries.

Most donors have drawn on the multilateral channels to support REDD+ Phase 1 but some (e.g. Germany) are also supporting this phase bilaterally. Most of multilateral support to Phase 1 goes through FCPF Readiness Fund and the UN-REDD program. However, other channels are also important through GEF, FAO, ITTO, CIFOR, ICRAF and various regional organizations, not least because they generate benefits for all the participating countries through sharing of experience and knowledge.

There is initial funding earmarked for REDD+ Phase 2 through the Forest Investment Program and for REDD+ Phase 3 through the FCPF Carbon Fund.

[40] There are obviously many other issues to be addressed in relation to private sector as a source of funding for REDD+ which cannot, however, be discussed here.

Most donors have identified their financial support to the fast start period 2010-12 and additional pledges are expected. Systematic information on what is available and what has been programmed is not yet available.

Considerable amounts of funding support are already earmarked to developing countries from multilateral and bilateral sources. There is a lot of data on financing sources but it is not consistent and it is varying quality as there are no common guidelines or standards to be applied. The OECD DAC statistics would be a useful instrument to improve data on donor funding to REDD+ and in the same context necessary improvement in the DAC statistics on development financing to forests could be considered.

Present financial support to REDD+ is generally linked to specific uses or activities as defined in agreed program or project documents and the related financial agreements. However, funding which goes through national or regional funds in developing countries is administered differently such as Amazon Fund, CBFF, GRIF, and the Indonesian MoU with Norway. The basis of financial support is agreed objectives and eligible activities as well as monitoring/ verification arrangements. In the first two cases calls for proposals are organized and this mechanism is also applied by ITTO REDDES Thematic Programme.

There is no information available on targeted efforts to design funding for REDD+ in a coordinated fashion across donors apart from the national planning processes of the FCPF R-PP. However, it can be assumed that recipient countries are coordinating their external support largely along the same lines as other areas of development financing. This assumption can be made as ministries of planning and financing as well as relevant sectoral ministries and forest authorities are often heavily involved in the REDD+ planning processes (see section 5.1). This area would, however, merit further investigation as the consultations with recipient countries did not provide sufficient additional information on this issue.

The data available in the developing Voluntary REDD+ Database is not yet comprehensive and there are gaps, including information on several external sources and domestic financing. The quality of data depends on the submitter and a review by the VRD manager is appears necessary to ensure adequate quality of information. Typical problems are typographical errors, double entries with different or same date, missing data fields, etc. which can easily be rectified through review by the VRD manager and consultations with submitters of data. In addition, double counting should need to be eliminated in data reporting and analysis.

Definition of what is REDD+ financing is another issue which is likely to emerge in the future. There are already cases of different interpretations of the same “REDD+ funding” flows by donors and recipient countries. Clear definitions would help build up transparent data on funding flows.

The available data on voluntary carbon markets and demonstration activities is scattered and of varying quality. Special surveys (e.g. Ecosystem Marketplace 2009, Wertz-Kanounnikoff & Kongphan-apirak 2007) are currently the only sources providing broader overviews of the situation. Special surveys suffer from deficiencies in the publicly available information on individual projects which limits possibilities for reliable analysis.

4. GAPS AND OVERLAPS IN REDD+ FINANCING

4.1 Gap Analysis

4.1.1 Shortfall in R-PP Budgets (REDD+ Phase 1)

The financing gap of REDD+ readiness (Phase 1) (cf. Figure 1.5) is here assessed based on the budget estimates of the FCPF R-PPs.[41] Out of the total needs of the 16 countries amounting to USD 217 million[42], about 87% is expected to be covered by identified funding sources (Annex 4.1).

The total financing gap of the seven countries which had a shortfall in R-PP financing is USD 28.3 million (Table 4.1 and Figure 4.1). The biggest absolute gaps are found in Indonesia (USD 13.2 mill.)[43], Kenya (USD 7.0 mill.), Argentina (USD 3.8 mill.), and Peru (USD 2.4 mill.).

Table 4.1 Financing Gap of REDD+ Readiness (Phase 1) in R-PPs

Country	Financing gap	
	USD 1000	% of total budget
Argentina	3,766	39,5
Costa Rica	459	10,6
DR Congo	1,227	5,4
Indonesia	13,264	70,3
Kenya	7,026	67,4
Peru	2,387	30,0
Lao PDR	190	0,8
Sub Total	**28,319**	**..**
Tanzania	-437	-4,3
Vietnam	-40	-0,3
Total	**27,842**	**12,8**

Source: Calculated based on Annexes 2.2 and 4.1.

Notes: The financing gap was calculated as the difference between the total budget and the total sum of identified sources. R-PP budgets also include a separate group of sources "other" but if there was no indication about from where these funds were expected to come, the items were here included in the financing gap. In the DRC the gap does not include USD 11,990,000 from co-financing but no source was indicated from where this co-financing was expected to come. The table does not include Ghana, Guyana, Mexico, Nepal, Panama, Rep Congo and Ethiopia which had full financing of their FCPF R-PP budgets. Tanzania and Vietnam have reported bigger sources of funds than the total budget of their R-PPs.

The DRC's gap (USD 1.2 mill.) would be significantly larger had the unidentified co-financing been included in the shortfall. In the case of Tanzania and Vietnam the available sources exceed what is planned in the R-PP budgets. In nine countries the REDD+ readiness needs are practically fully covered by the planned sources.

41 UN-REDD NPD budgets do not include other sources of financing than UN-REDD.

42 See Annex 2.2; Madagascar and Suriname are not included here due to lack of data on sources of financing.

43 Indonesia's financing needs for REDD+ readiness were estimated at USD 18.9 mill. (Annex 2.2) The country is currently (2007-2013) receiving about USD 43.2 mill. which is mostly used for readiness and demonstration activities (Scheyvens 2010). The total available funds for the country are expected to be USD 1.3 billion (Annex 3.3). Therefore, the gap in Table 4.1 is likely to be filled from the existing and projected resources even though specific funding sources to cover it may have not been identified as yet.

4.1.2 Funding Sources

About 60% of the total identified funding of the 16 R-PP budgets, amounting to about USD 190 million, relies on multilateral sources, notably FCPF and UN-REDD (Figure 4.2) but this varies extensively between countries. In six cases (Costa Rica, Kenya, Lao PDR, Panama, Peru and the Republic of Congo) almost all financing (90% or more) is planned to come from these sources (Figure 4.3).

The role of bilateral donors is limited as they directly account for only 12% of the total. Bilateral inputs were identified in the R-PP budgets in Guyana, Indonesia, Mexico, Nepal, Tanzania and Vietnam[44]. Unfortunately, due to lack comparable data on all bilateral readiness funding, it is not therefore adequately reflected in Annex 4.1 and Figure 4.2. For example, stand-alone bilateral German REDD+ programs in five countries (Ecuador, Brazil, Bolivia, Lao PDR and Indonesia) exceed the available multilateral funding. These inputs are not always duly reflected in the financing sources of R-PP budgets. Therefore, the gaps in Table 4.1 may be overstated in some cases.

The second largest source is domestic financing (almost entirely from government sources), accounting for about a fifth of the total identified financing but the total is strongly influenced by the extensive government funding in Mexico (accounting 80% of the total R-PP budget, or USD 27.3 mill.). As a whole the 16 FCPF countries plan to raise a total of about USD 40 million domestically. In addition to Mexico, proportionally the highest shares of domestic financing are found in Argentina (40%), Ethiopia (32%) and Ghana (23%). In the other countries the domestic contribution is less than 20%.

Other identified sources are recorded mainly by the DRC which is expected to raise USD 12 million to come from co-financing, however, without identifying from which sources

This analysis is based on facts which are not clear as in some cases the sources are truly identified (e.g. from FCPF, UN-REDD and bilaterals) but in other cases “identified” sources may be only indications. The same problem may also concern the figures on domestic financing.

4.1.3 Financing Gaps of REDD+ Phases 2 and 3

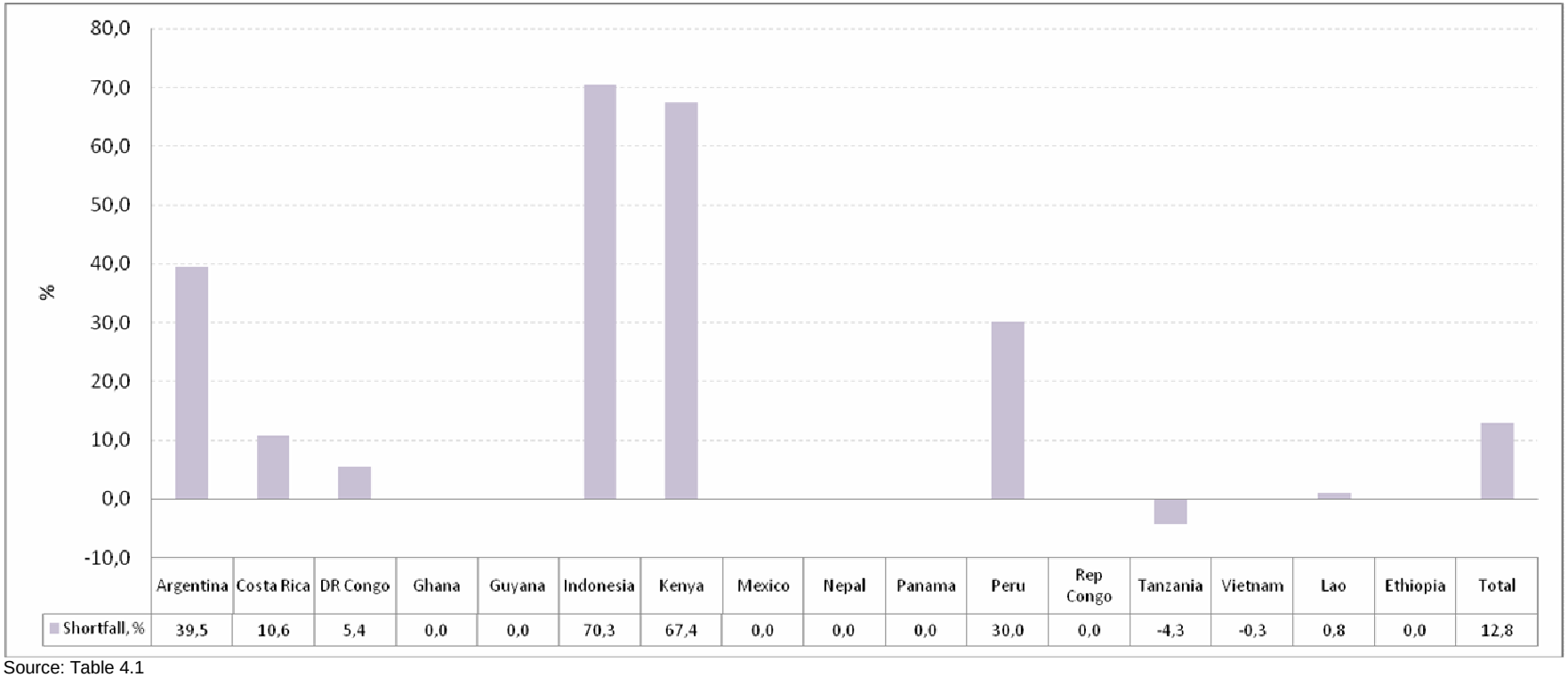
Information to establish estimates on the funding gap for REDD+ Phase 2 implementation of policy measures and action plans (national REDD+ strategy) does not exist. The national REDD+ strategies reviewed for this study prepared by the DRC (Box 2.1) and the Philippines did not contain cost estimates (cf. section 2.1.2)

On the supply side, a preliminary estimate of the annual level of financing support to REDD+ is probably in the range of USD 1.3-1.5 billion during the Fast Start period (2010-2012) assuming effective deployment of pledges.[45] This represents a significant increase to the funding level of pre-Fast Start (2008-2009). As most developing countries’ preparedness to “fast start” large scale implementation is limited due to needs for adjustment of the policy,

[44] Bilateral financing is identified also in the R-PP of Lao PDR as a separate additional input which is not included here.

[45] The total Fast-Start pledges amount to USD 4.3 billion (section 3.4) which is here divided by three.

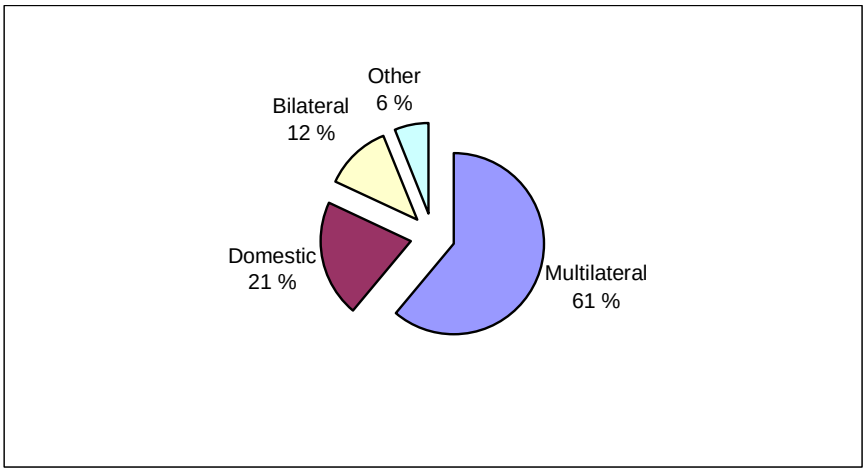
Figure 4.1 Shortfall of Financing in R-PP Budgets



	Argentina	Costa Rica	DR Congo	Ghana	Guyana	Indonesia	Kenya	Mexico	Nepal	Panama	Peru	Rep Congo	Tanzania	Vietnam	Lao	Ethiopia	Total
Shortfall, %	39,5	10,6	5,4	0,0	0,0	70,3	67,4	0,0	0,0	0,0	30,0	0,0	-4,3	-0,3	0,8	0,0	12,8

Source: Table 4.1
Note: In the R-PPs of Madagascar and Suriname no information on sources of funding was included and they are here excluded.

Figure 4.2 Financing Sources of R-PP Budgets in 16 FCPF Countries



Source: Annex 4.1

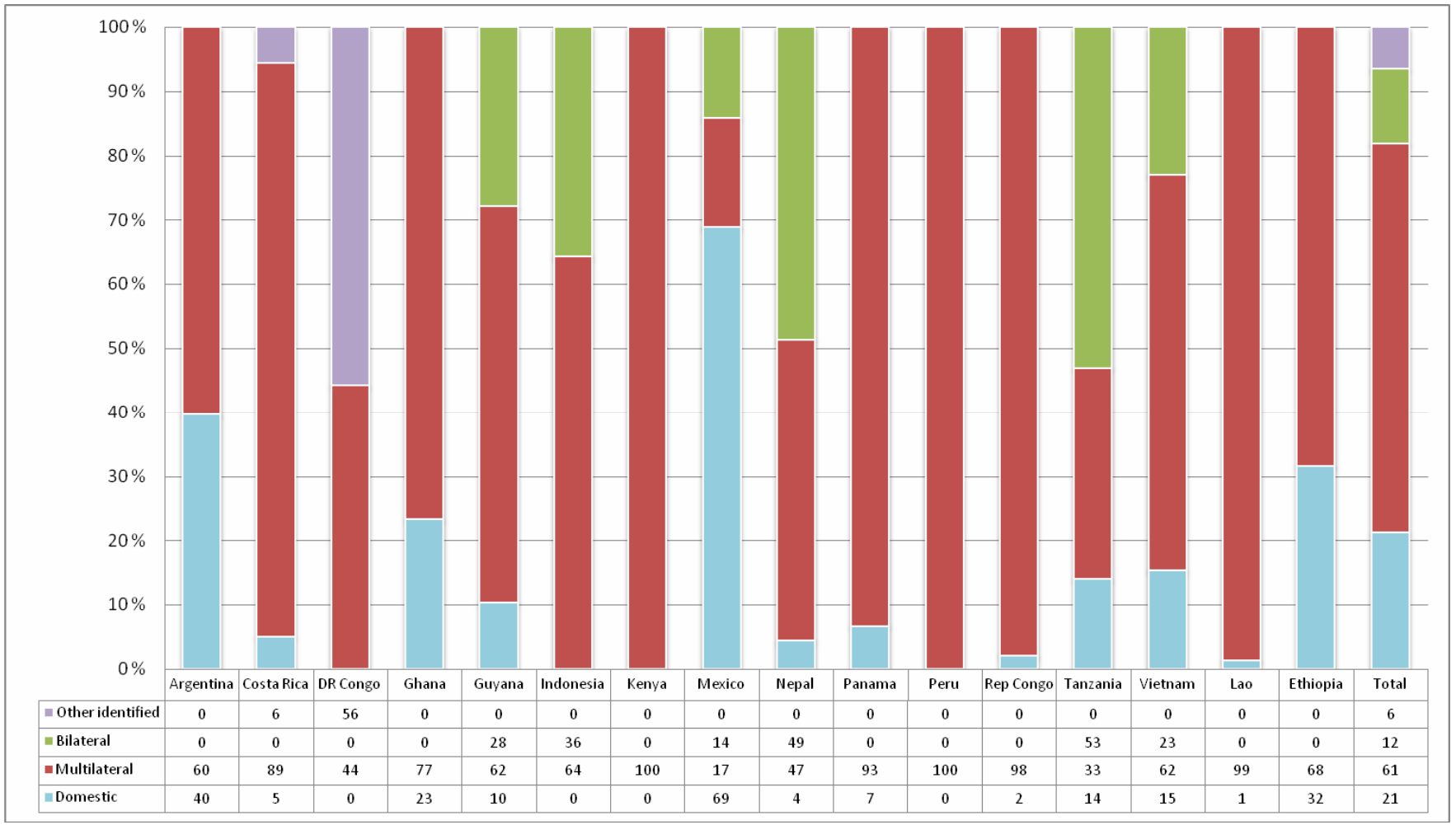
legal and institutional framework as well as capacity constraints, the actual deployment of the Fast Start funding may in practice be spread over somewhat longer periods of time. The total amount is significant but part of it is likely to be spread relatively thinly as some countries may only receive token support as past experience has shown (cf. Annex 3.3). Disbursement schedules of Norway's large bilateral programs would also lend support to this tentative conclusion.[46]

The financing gap of REDD+ Phase 3 cannot be reliably estimated. Nevertheless, it appears that out of the estimated needs of USD 20 billion by 2015 towards a 25 per cent reduction in deforestation and an additional USD 4 billion for reduction of emissions from forest degradation (IWG-IFR 2009), about USD 4.3 is already pledged for the Fast Start period in spite of the uncertainties related to the outcome of UNFCCC negotiations on REDD+.

There are indications of significant increase in funding if appropriate mechanisms can be put in place at international and national levels for performance-based incentive systems. However, it is apparent that the funding needs cannot be met without broad participation by the private sector. The analysis of the carbon market in chapter 3.8 showed that there is a large potential in the REDD+ investment if enabling conditions can be established both at international and national levels. However, much work will have to be done as the current level of funding by the private sector is marginal. Fortunately, an increasing number of countries are gaining experience in implementing various approaches to enhance to role of the private sector for raising financing for REDD+ (see section 3.8).

[46] E.g. funding to the Amazon Fund is taking place through annual slices of USD 110 million.

Figure 4.3 Funding Sources of R-PP Budgets



	Argentina	Costa Rica	DR Congo	Ghana	Guyana	Indonesia	Kenya	Mexico	Nepal	Panama	Peru	Rep Congo	Tanzania	Vietnam	Lao	Ethiopia	Total
Other identified	0	6	56	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Bilateral	0	0	0	0	28	36	0	14	49	0	0	0	53	23	0	0	12
Multilateral	60	89	44	77	62	64	100	17	47	93	100	98	33	62	99	68	61
Domestic	40	5	0	23	10	0	0	69	4	7	0	2	14	15	1	32	21

Source: Annex 4.1. Madagascar and Suriname are not included due to lack of data.

While no firm quantitative analysis is possible, some qualitative observations can be made:

- The current funding flows are heavily concentrated on the two large forest countries in the tropics (see chapter 3.6). Even though the number of participating recipient countries is increasing, there are still many geographical gaps. On the other hand, as there are indications on possible overestimation of REDD+ Phase 1 gaps due to lack of comprehensive data on all funding sources as discussed above, the results of the previous analysis should be interpreted with extreme care. Further work is needed to improve data for reliable estimation of REDD+ funding gaps.
- In view of the increasing needs for funding when the REDD+ processes proceed to Phases 2 and 3, limitations in effective absorption capacity of recipient countries may become a barrier to financing and thereby estimated gaps may in fact be reduced or prolonged (cf. REDDnet 2010).
- Thematically, the focus is naturally being given to the REDD+ readiness phase. Two important challenges remain: The first issue is how to finance the other two phases of REDD+ including the transformative investments in forest production and markets. At present, the main source targeted at these investments is FIP which presently has fairly limited resources (USD 0.6 billion). GEF can also contribute to some of these investments within the eligible activities of its SFM/REDD+ Program (policy development, protected area creation and management, carbon measurement and monitoring, reduced impact logging, certification of timber and non-timber forest products, payment for ecosystem services, among others) (GEF 2010). The second challenge is how to effectively engage the private sector so that REDD+ Phase 3 can become a true reality as without its participation in REDD+ implementation may not be realized on a required scale.

4.1.4 Geographic Aspects of REDD+ Financing Flows

About 40% of the total external REDD+ financing (multilateral and bilateral) is directed to high deforestation countries and about 30% to countries where deforestation rate is less than 0.5% per year (Figure 4.4). The latter group of countries account for about two thirds of the existing carbon stock in living biomass in developing countries. About 30% of the total REDD+ financing goes to countries with no net deforestation or with increasing forest area. Their share of the carbon stock in developing countries is in the same range.

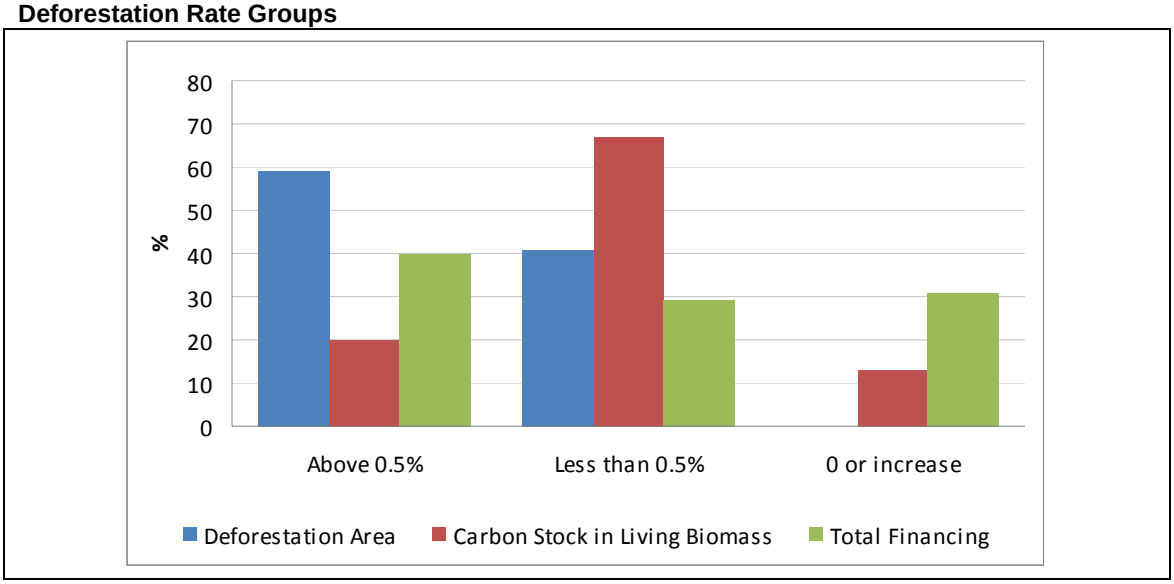
About 69% of the REDD+ financing is shared roughly equally between two high forest cover country groups (countries where forest cover is either more than 60% or 40-60%). These countries account for 70% of the total global net deforestation area and their combined share of the carbon stock in living biomass is 80%. Low and medium forest cover countries (less than 20% and 20-40%) receive 31% of the total financing and 30% of the global net deforestation occurs in this group. Their share on carbon stock in living biomass is about 20%.

Figure 4.4 also includes similar information on a sample of key countries receiving significant financial support to REDD+ implementation. Their potential role in reducing carbon emissions appears to vary significantly as well as their share of REDD+ financing but not in the same manner.

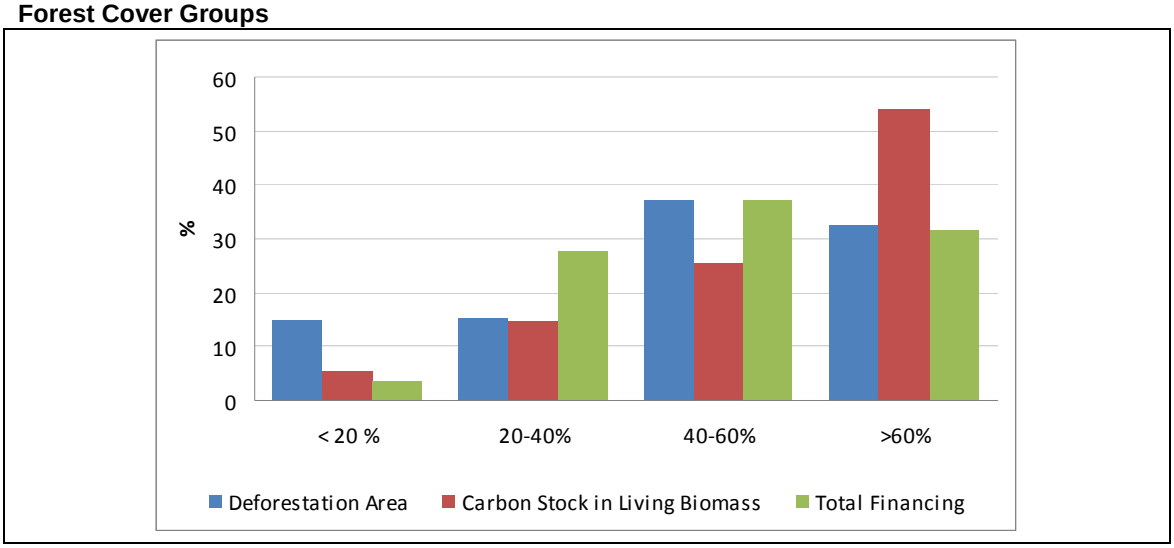
The purpose of this study is not to assess the effectiveness of the current financing flows for mitigation of the climate change. However, the above brief analysis shows that this subject would merit further analysis.

Figure 4.4 REDD+ Financing Flows to Selected Country Groups and Countries

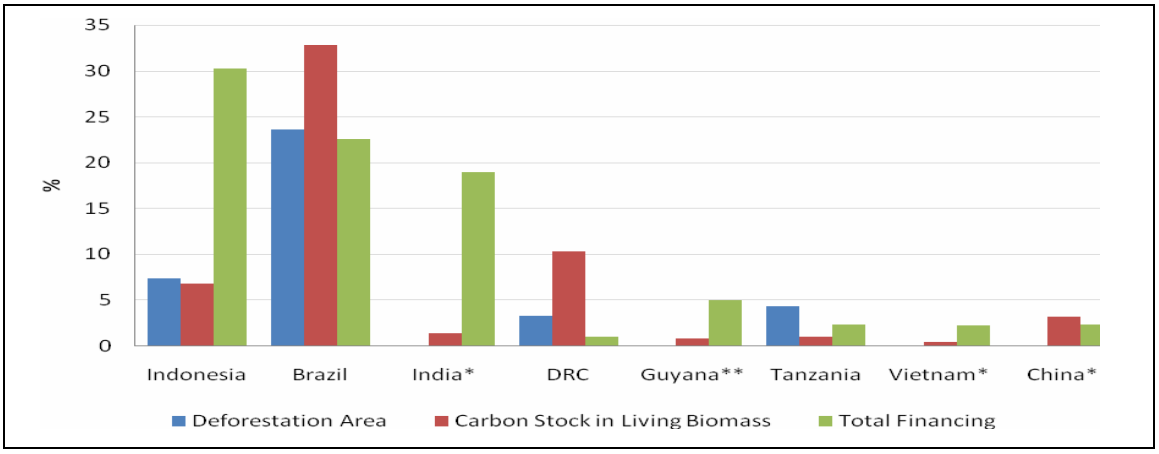
Deforestation Rate Groups



Forest Cover Groups



Selected Countries



Sources: Data on deforestation area and carbon stock in living biomass in 2010 was elaborated based on FRA 2010 data (FAO 2010).The total REDD+ financing by recipient country was elaborated based on Annex 3.3.
Note: In China and Vietnam forest area is growing. In Guyana the deforestation rate is 0.

4.2 Issue of Overlap and Consistency

The mix of funding sources has enabled a broad geographic coverage of REDD+ support building on earlier support programs, particularly those to sustainable forest management and biodiversity. On the other hand, the support is thin in many countries and its timing varies. Most financing sources work based on proposals from eligible potential beneficiaries, sometimes within country support programs and strategies. Due to uncertainties involved about the actual availability of funding disbursement, the countries may apply for the same kind of support from more than one source creating a risk for overlaps. It is not uncommon that later on the same achievements may be reported under several programs or projects which may have provided partial financing to the activities in question. In addition, there is probably an element of overlap particularly in countries which are receiving significant funding from several sources (see Annexes 3.1 and 3.3).

With regard to possible overlap between the UN-REDD and the FCPF, Figure 4.5 shows how their funding is distributed between components and Annex 4.2 also gives the average, minimum and maximum amounts by component.[47]

The previous analysis of needs for and sources of financing has shown that only initial steps have been taken to address overlaps and gaps. This is partly due to the fact that the needs are known on a systematic basis for the REDD+ readiness phase (Phase 1) only while reliable estimates for Phases 2 and 3 are not yet generally quantified.

The main tool to address the issue of overlap appears to be the FCPF budget approach which considers all financing sources but is not yet successfully applied in all cases. Integration of all sources of funding is not yet adequate and, as indicated in Table 2.3, there has also been limited integration or lack of consistency between UN-REDD and FCPF budgets for the reasons of different budget components and time horizons, among others. The situation can be expected to improve when a common budget template being finalized is taken into use.[48]

Another issue related to this is that if the disbursements for the follow-up work cannot be swiftly made, the prepared budgets would need to be updated. As for the time being FCPF has been able to provide funding support only to R-PP preparation, this has become a serious concern. In the Meeting of the FIP Sub-Committee in June 2010 (Climate Investment Funds 2010) it was proposed to consider a Common Delivery Platform to be managed by a REDD+ country. Further, it was proposed that institutions other than the World Bank could implement the FCPF readiness grants to assist countries to make a fast start. These proposals are moves to the right direction even though there are some barriers to be addressed such as different safeguards to be applied.

The development of the REDD+ Voluntary Database (VRD) is another positive initiative as it will improve the transparency of existing and planned financial flows to developing countries. VRD is still in initial phases of development and the coverage of data should be expanded to make it truly useful for enhancing coordination and harnessing synergies between various sources of support. Several areas need to be developed further to make VDR to deliver its full value added to the efficiency and effectiveness of REDD+ Partnership.[49] They include, among others, coverage and quality of data, updating and reporting.

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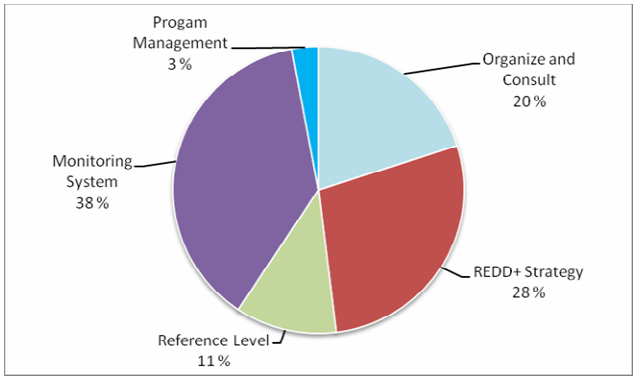
[47] The FCPF budget breakdown has been used as the template according to which the subcomponents of the UN-REDD budgets have been (re)classified.

[48] The draft template is available from www.forestcarbonpartnershipfacility.org.

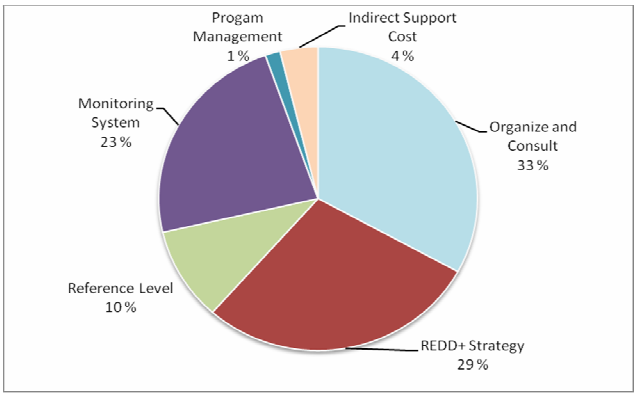
[49] The discussion here is based on the situation in November 2010.

Figure 4.5 Summary FCPF and UN-REDD Total Country Program Budgets by Component

FCPF



UN-REDD



Sources: Annexes 2.2 and 2.3

(i) There are four aspects related to the ***coverage*** issue; three related to sources and one related to that kind of financing should be included in VRD.

(a) <u>ODA.</u> The current status shows that VRD has information on only nine bilateral donors, FCPF, UN-REDD, some UN organizations, the GEF, ITTO, and the World Bank. However, it is apparent that in the case of some sources the information is not complete. In addition, some key external donor sources are lacking (e.g. regional development banks).

(b) <u>Domestic sources.</u> Only four countries[50] have presently provided quantitative information on domestic financing on a general level and with differing coverage in terms of activities. There is a need to consider (a) at what level information should be collected specifically from recipient countries to a centralized international data based for coordination purposes in view of the difficulties in compiling and updating that information using a common format. In this case efforts could perhaps be better allocated for making REDD+ related information (national REDD+ strategies, budgets and investment plans) available from countries, through the VRD as a portal until a more formal registry of the financing agreements, disbursements and independent verification of action results can be provided through a structured data collection and

50 Cameroon, Honduras, Nigeria, and Papua New Guinea (see Annex 3.4).

processing approach along the lines of the Carbon Asset Registry System (CARS) database.

(c) Other sources. This is a major challenge as it is known that the CPF Finance Sourcebook[51] contains about 700 possible sources of financing but it has been impossible to collect quantitative information on their financing to forests.

(d) Type of financing. There is an agreement that grant financing and budgetary financing should be reported. There is no agreement whether loan financing should also be included and this has major implications for any analysis of available funding for REDD+.[52]

(ii) ***Quality of data*** varies in the VRD. Data ownership rests with the submitting organizations and therefore its adjustment is sensitive. This study has made extensive use of the existing data in the VRD and the experience shows that some kind of informal quality assurance mechanism would be required to ensure that the data is free from errors as pointed out by Holmgren (2010).

(iii) ***Updating and reporting*** modalities still remain to be defined. When the number of data entries increases, the development of structured reporting procedures becomes necessary. This will then have to be linked with a periodic updating cycle rather than relying on parties' capacity to continuously keep their data up-to-date.

In spite of the fact that the main focus on coordination and matching between funding needs and sources should be on the national level, an adequate communication mechanism should be in place at an international level as part of the VRD to inform the donor community and other external sources where the financing gaps are in terms of countries and activities.

4.3 National Level

The obvious solution for the weaknesses in coordination and matching between financing needs and sources is that a coordinating arrangement at country level is built on the national REDD+ strategy. In the readiness phase when the strategy is still under development coordination of financing of the initial support is also necessary as the analysis of this study ahs shown. In countries where FCPF, UN-REDD and bilateral donors are present, the comprehensive strategic approach addressing all the key aspects of the three REDD+ phases would provide a useful mechanism. Individual financing support should be crafted within a common transparent framework. The recent proposals for closer integration of FCPF, UN-REDD and FIP are a move to the right direction as the first step (CIF 2010).

In countries which may not opt for a comprehensive REDD+ strategy approach, the REDD+ support could be coordinated by one of the following approaches:

- The government to assume the lead in carrying out a comprehensive needs assessment within (a) an existing mechanisms such as the national forest program which already has many shared elements with REDD+ (monitoring of forest resources, policy reforms, governance strengthening, addressing cross-cutting issues related to forests, etc.).
- In countries with limited knowledge and resources to lead the initial phase of the REDD+ process, UN-REDD program to assume the lead in supporting a comprehensive needs assessment and assisting the country in mobilizing financing from all sources.

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51 http://www.fao.org/forestry/cpf/sourcebook/en/

52 See further discussion on this issue in Simula (2008).

In many countries, the national units being in charge of coordination of REDD+ support and activities, will also need to improve the transparency of financing flows to REDD+ and related activities so that all the development parties can work based on adequate information when planning their support. There is a lot of piecemeal information available but as implementation of REDD+ related activities fall under different sectoral ministries and agencies (environment, natural resources, forestry, energy, agriculture etc.) it is often difficult to establish a comprehensive picture. There are existing national data bases but further efforts may be needed to compile it periodically into reports which reveal gap areas and make suggestions for how they could be filled through new funding, co-financing, or other arrangements.

A number of countries have established (or are planning to do so) a national specialized REDD+ fund or other targeted financing structures to act as a channel for REDD+ finance. Experience on such arrangements will be accumulated in Guyana (GRIF), Brazil (Amazon Fund), Indonesia (REDD+ fund specified in Norway's MoU with the Indonesian Government), and Ecuador (Yasuni ITT Trust Fund with UNDP). Guyana's financing mechanism is explained in Box 4.1. In addition to improved coordination, these instruments will contribute to national ownership of REDD+ initiatives and reduced transaction costs for external financing flows. They would also open up opportunities for new financing mechanisms such as international level funds of (national) funds for REDD+ financing. Further work in this area is highly desirable.

4.4 Conclusions on Gaps and Overlaps

Further examination would be required to establish whether estimated needs are incremental but the results of the gap analysis clearly suggest that the financing needs of REDD+ readiness and performance-based payments are incremental. The implementation costs are likely to be largely inclusive of existing programs of sustainable forest management, forest biodiversity and other related financing.

The previous discussion leads to the following conclusions to the questions raised in the Terms-of-Reference (Annex 1.1):

- There are clear geographic gaps in the financing flows. Twelve countries among the 79 included in the analysis do not receive any financing for REDD+ related activities based on the available information.

- Current financing covers mostly REDD+ Phases 1 and 2, but both inadequately. Financing of Phase 3 is still in the initial phases, mainly coming from CDM and voluntary carbon markets. However, this is changing in three countries which are scheduled to receive significant bilateral funding for REDD+.
- A total of 48 countries receive or are scheduled to do so financial support to REDD+ Phase 1 from FCPF and UN-REDD. Several other countries receive support in a way or another from GEF, REDDES, CBFF and bilateral sources for this purpose. Without additional information it is not possible to clearly identify gaps in financing. However, it appears that only few countries which are not receiving support from FCPF and UN-REDD are undertaking a structured process to develop a national REDD+ strategy.[53]
- There have been overlaps between FCPF and UN-REDD financing in countries where both programs provide support. The situation will be improved when the planned joint budget template is taken into use. However, there may be a need for a clearer sharing of intervention areas.

[53] This conclusion is made based on the review of the situation in Asia and the Pacific (ADB 2010).

- Information on overlaps between bilateral and multilateral/regional programs is not available. For the time being, this is not assumed to be a main issue but will become more important in the future with expected expanded financing flows.
- The analysis of this section raises the question of general reliability of country data on funding sources and thereby also information on gaps and overlaps in REDD+ financing. This area would merit further study.
- The current arrangements for international and country level coordination are not adequate and do not offer an effective mechanism for matching financing needs with available sources.

Box 4.1 Financing Mechanism of the Guyana Low Carbon Growth Strategy

Financing mechanism
At the heart of the strategy is a climate finance mechanism, the Guyana REDD+ Investment Fund, which is structured as payment for forest climate services. Guyana sells "avoided deforestation credits" at USD 5 per ton of CO_2. Payments are then used as public finance in, or to catalyze private finance for, low-carbon investments. Although payments are results-based, it is estimated that Guyana will provide US$350 million of climate services during the period 2010-2015.

The Government of Norway has intention to pay for USD 250 million worth of these services, based on an independent assessment of results achieved. The remaining USD 100 million is yet to be committed from other sources. The Guyana-Norway partnership is designed to jointly identify and solve challenging issues that are internationally relevant, e.g. balancing national sovereignty with international safeguards. Funds from the GRIF are channeled into nationally determined low-carbon investments, in accordance with the financial, social and environmental safeguards of reputable international organizations. Annual assessment and verification will be carried out by a third party. The system is designed to eventually transition towards funding from international carbon markets, reducing Guyana's dependence on international public financing. It also incorporates a shrinking baseline for deforestation credits, thereby reducing carbon market supply over time.

Decarbonizing future growth:
During 2010-2015, payments for forest climate services are being channeled through the GRIF to support the transition of public and private investments towards a low-carbon economy. Investments will support small businesses; expand Guyana's digital infrastructure (including a fibre-optic link with Brazil); effect public interventions to catalyze private investments to access USD 1 billion in identified export opportunities in six low carbon economic sectors; strengthen forest governance and capabilities to monitor, report and verify forest carbon abatement; and support social and economic development for indigenous peoples, forest-dependent communities and vulnerable groups.

The biggest investment of the GRIF in 2010 and 2011 will be USS 40-60 million of payments being used as Government equity in a roughly USD 750 million, private sector-led hydropower project. Government support will enable satisfactory returns for private investors, while ensuring a competitively priced electricity supply in Guyana. This will enable Guyana to switch from nearly 100 per cent dependence on fossil fuel-based electricity generation to nearly 100 per cent clean, renewable energy supplies. The Blackstone Group of the United States and the China Development Bank are planned to provide private equity and debt financing.

Protecting against climate change:
Guyana's total adaptation costs are projected to exceed USD 1 billion. A portfolio of urgent priority projects will require about USD 288 million of investment, including reinforcement of ocean sea walls, expansion of the early warning and emergency response system, and improvement of sanitation and water resilience. Some GRIF funds will be allocated to adaptation priorities, with other financing being secured through domestic and international channels.

Sources: Government of Guyana (2010); United Nations (2010)

5. QUALITATIVE ASPECTS OF REDD+ FINANCING PROCESS

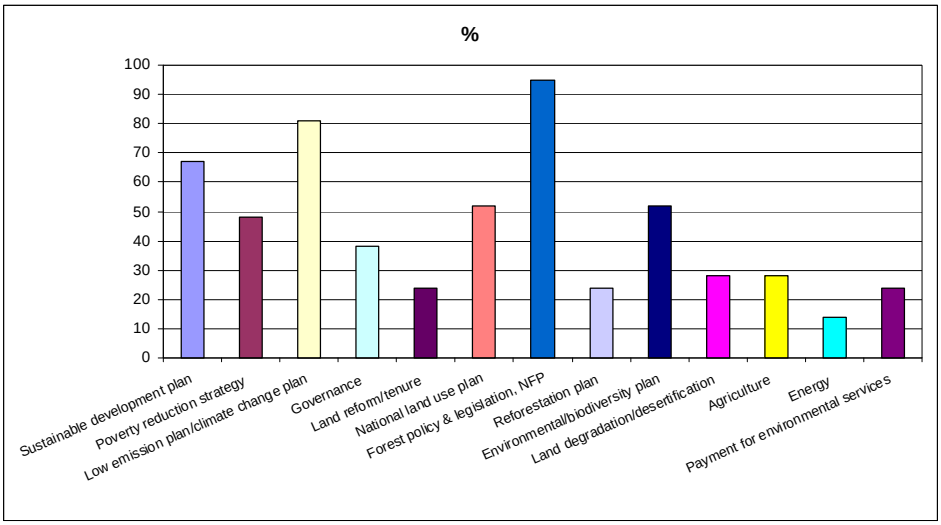
5.1 Integration of National REDD+ Process with Other Planning Frameworks

The FCPF R-PPs and UN-REDD NPDs were reviewed in order to find out to which extent REDD+ processes are linked with other planning frameworks and policy processes. References covered a wide range of other initiatives (Figure 5.1). More than 90% of the 21 countries included in the analysis mentioned forest policy/legislation/NFP processes and national low emission/climate change plans. Two thirds referred also to national/sustainable development plans. About a half of the countries identified linkage with poverty reduction strategy, national land-use plan/zoning, and national environment/biodiversity plans and programs. The other policy/planning frameworks mentioned were governance programs, programs to combat land degradation and desertification, agriculture, land reform and tenure, payment for environmental services, agriculture and energy.

There is apparently a high degree of integration with climate and forest related planning frameworks and the link with macro-economic and environmental planning is also identified with national REDD+ strategies in the readiness phase. The evidence, albeit still initial, suggests that REDD+ strategies are generally integrated within a full low emission development strategy when such strategies exist.[54] A more detailed examination of the countries´ REDD+ strategy plan documents when they become available over time would reveal to what level the integration is actually achieved.

Figure 5.1 Linkages of REDD+ Process with Other National Planning Frameworks

% of countries



Source: Analysis of R-PPs and NPDs

On the other hand, the analysis reveals a low level of integration with those planning frameworks which directly address key cross-sectoral issues; i.e. agriculture and energy. In addition, there was no mention on linkage with infrastructure. It is important that these lacunae be duly considered when national REDD+ strategies are formulated in order to design effective measures for addressing the key cross-sectoral drivers of deforestation and forest degradation.

[54] E.g. Guyana, but see also section 5.2 and ADB (2010).

In a few cases there was a reference to gender and indigenous people's programs but these were exceptions.

As a conclusion, intersectoral linkages and integration of REDD strategies in relevant national policy and planning frameworks appear to need more attention than in the past. Lessons learned should be effectively shared as the issue is complex. Full integration can only be expected over a period of three to five years due to the fact that integration between REDD+ and other relevant policy processes can effectively be carried out within the existing planning cycles of other sectors. There is a need to periodically monitor and assess this issue in the future.

5.2 Participation of Stakeholders in the REDD+ Process

Stakeholder participation in the REDD+ processes was assessed based on the information provided in R-PPs on who had participated in the elaboration of the planning documents and which groups had been consulted. In general, a broad range of groups has participated in the process but the frequency and extent of group participation has varied between countries (Figure 5.2 and Annex 5.1).

In about 40% of the countries on which information is available on the level of participation was medium (6-9 groups identified) and in 22% it was high (10 or more groups identified). In the other countries (about 40%) the scope of participation has been narrower (less than 6 groups involved in the process).

The most frequent participants in the process have been forest authorities, universities and research institutes, and various government bodies. In less than a half of the countries ministries of planning/financing and environment/natural resources were involved which is a cause of concern for integration of the REDD+ strategies in national macro level plans and budgets.

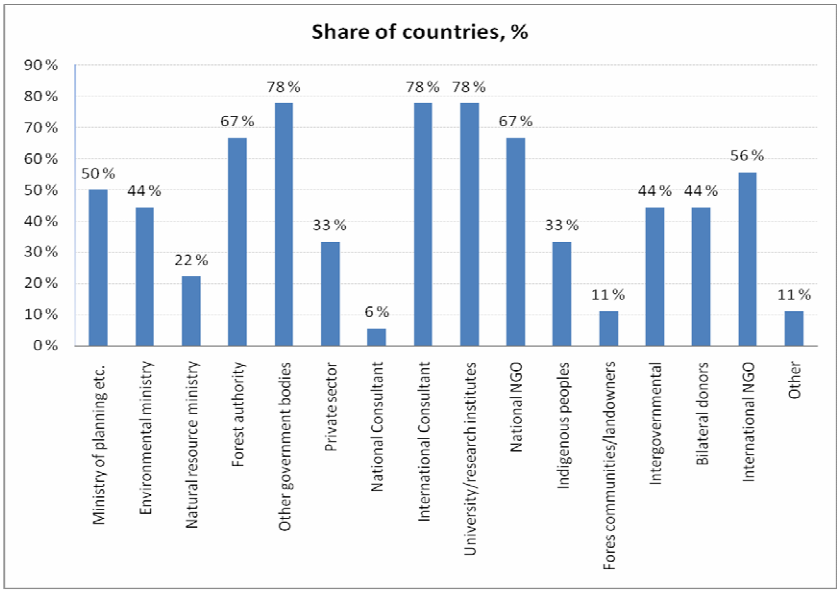
International NGOs have participated more frequently than their national counterparts who were mentioned only in a third of the countries. Bilateral donors and their project staff are also mentioned in about a third of the cases. Only one in seven countries reported on participation of indigenous peoples and forest communities/landowners. This low level may in some cases be explained by weak national organizations of these stakeholder groups to enable their effective participation (Figure 5.3).

Private sector participation is reported in a third of the countries. This item needs further investigation to find out the details of private sector participation which is deemed crucial for REDD+ implementation, not only as an investor in carbon credits but also as a source for creation of alternative activities for increased income and employment thereby reducing the pressure on forest resources.

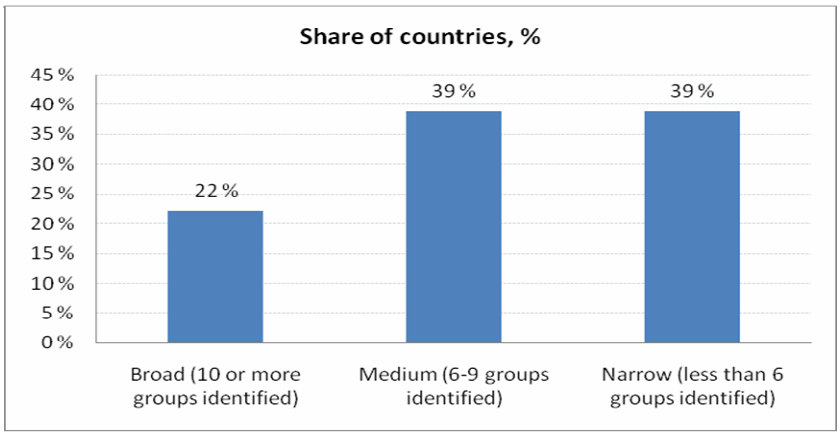
The private sector group did not include consultants who have been involved in the REDD+ process. International consultants have participated - often playing a key role - in the preparatory phase of REDD+ in four countries out of five. The participation of national consultants was reported only in two thirds of cases.

Figure 5.2 Stakeholder Participation in the Elaboration of REDD+ Project Proposals and UN-REDD National Programme Documents

Number of stakeholder groups



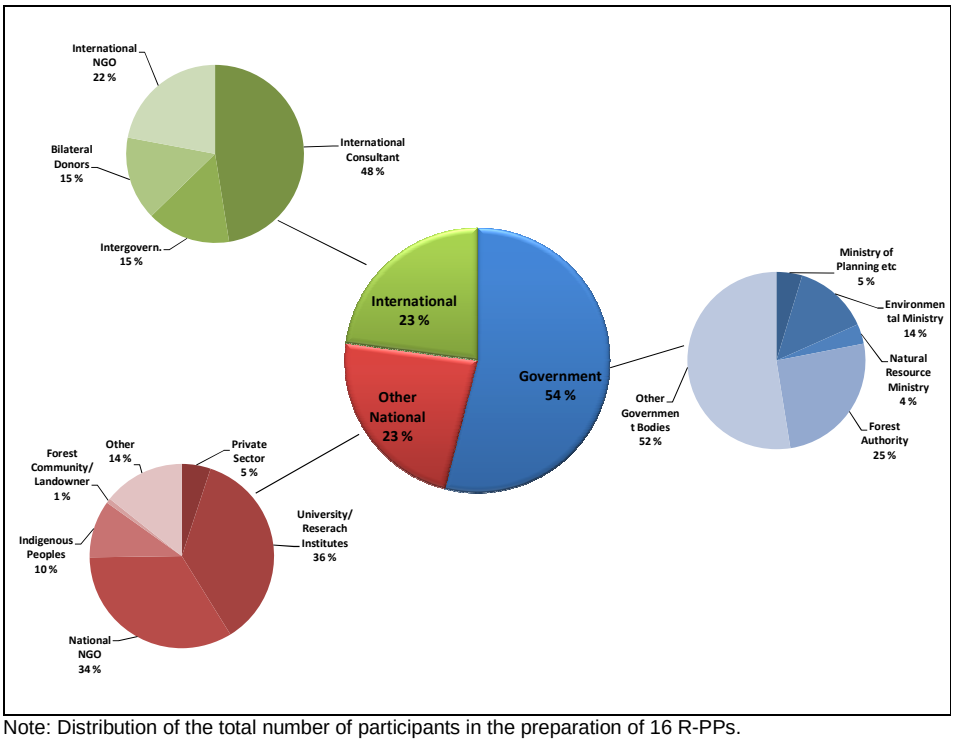
Scope of participation



Source: Annex 5.1

A word of caution is needed on these tentative results which have several limitations. The source documents do not report on consultation of individual groups in a consistent manner. There are countries which have apparently organized broad-based consultation processes but their participants may not have been duly recorded in the planning documents reviewed. A proper review would require examination of the various workshop reports, minutes of the meetings held, and background studies but such an exercise is beyond the scope of this study. Nevertheless, three conclusions may be made:

Figure 5.3 Distribution of Number of Participants by Stakeholder Group in the Preparation of R-PPs



Note: Distribution of the total number of participants in the preparation of 16 R-PPs.
Guyana and Indonesia are not included due to lack of specific information.

- In spite of specific resources made available for consultation, stakeholder engagement in national REDD+ processes appears to have different levels of coverage and intensity among countries. In particular the low level of involving indigenous peoples and forest communities and landowners is likely to be a cause of concern.
- There is a need to have proper records on stakeholder involvement in different phases of the REDD+ process to allow assessment of participation. Specific guidance for this purpose may be required.
- There is a need to keep stakeholder participation and engagement under periodic review to take corrective action if needed.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Financing Needs for REDD+

- The average country-level needs for financing of the REDD+ Phase 1 (readiness) vary from USD 4.3 to 39.6 million depending on the country conditions and methods of estimation. However, some large estimates for certain components could include an element of overestimation and can raise an issue of absorptive capacity for effective short-term deployment of funds.
- Examination of the financing needs to cover REDD+ monitoring system costs revealed that they are generally in line with other independent information.

- There is lack of clarity on what are the needs of financing for REDD+, partly due to the cross-cutting nature of implementation costs requiring financing to and from other sectors than forests. A related issue is that the three REDD+ phases can be implemented in parallel which makes classification of individual funding needs by component or phase sometimes difficult.
- The existing global or national level opportunity cost estimates of REDD+ suffer from several weaknesses which may lead to over or under estimation. There is need for further country-level research is needed on this area taking also into account in-country variation in local forest situations.
- The tentative financing needs for broad-based implementation of REDD+ (Phases 2 and 3) to reduce the current deforestation by 25% by 2015 are in the range of USD 20 billion and an additional USD 4 billion may be needed for addressing forest degradation. Several factors suggest that the longer term costs will be higher.
- These estimates do not include transaction costs associated with performance-based incentive payment schemes. They can be significant, particularly in weak governance situations, in small countries/schemes and in project-level funding.
- The existing studies do not reflect the possible benefits of alternative activities to those leading to deforestation or degradation which tackle the underlying drivers of deforestation while generating economically productive activities and associated employment and income in the long term. National REDD+ strategies should tap various opportunities by promoting investment in such alternative activities to secure the long-term sustainability of the REDD+ payment schemes.
- Financing needs have been estimated in the sequential order for REDD+ phases. However, they can and often should be implemented in parallel. Tackling drivers of deforestation and forest degradation is an urgent issue and should not be perceived as something to be taken up only in the longer run. Action to address the drivers is the precondition for successful implementation of REDD+.
- Needs of overall REDD+ funding by countries are not yet satisfactorily estimated through bottom-up approaches. Adequate guidance for this is not available and external expertise is therefore often used. National skills in estimating costs and benefits of REDD+ and elaboration of REDD+ strategies need strengthening. It is in the countries´ interests to improve their capacities for elaborating national REDD+ strategies and reliably estimating the respective financing needs but further guidance tools and training in this field are needed.

Sources and Funding

- Based on the pledges made the Fast-Start financing for REDD+ (2010-2012) is about USD 4.3 billion. The total available funding for REDD+ from 2008 onwards is estimated at USD 7.3 billion of which through bilateral programs and projects USD 4.8 billion, through multilateral, international and regional mechanisms about USD 2.3 billion, and through voluntary carbon markets USD 150 million. However, information is lacking from many bilateral and other sources and therefore the actual figures are somewhat higher.
- Financing is presently mainly provided by a few large donors (particularly Norway and Japan) who are investing significant funds in REDD+. Measures are being taken by several others to expand their participation based on the pledges made and new sources are also preparing themselves for future REDD+ funding.
- The current multilateral programs (FCPF and UN-REDD) are essential for financing of REDD+ readiness, often accounting for more than up to 80% of the total needs. Domestic financing generally plays a minor role (about 20% on average) but there are exceptions like Brazil, China, Costa Rica and Mexico which have invested significantly even before REDD+ efforts were started off. A few countries (Brazil, Guyana, India,

Indonesia, and Tanzania) receive significant inputs from bilateral sources and are therefore also among the main recipients of REDD+ funding for the time being.

- Available funding does not necessarily mean that countries have a ready access to funds. In general, programming and project cycles take time and involve negotiations between parties. There are also various institutional constraints. For instance, FCPF has not yet disbursed their planned contributions to the implementation of R-PPs.
- The current REDD+ funding is concentrated on two large countries (Brazil and Indonesia) which account for 52% of the global net deforestation area. This can be justified from the perspective of addressing emissions from deforestation as the most urgent issue.
- A more balanced distribution among funding sources and recipients, and more agile disbursement mechanisms would be needed to accelerate the national REDD+ processes to broaden the impact. There is also a perceived need for continuous technical support to ensure that funding flows do become realized.
- Disbursement of REDD+ funding is political, complex and slow. Improved coordination, transparency and simplification of rules are necessary – while respecting quality standards and the (often limited) absorptive capacity of recipient countries. On the other hand, clear longer term guarantees on fund availability are called for by these countries but this is difficult to ensure due to administrative reasons in the absence of binding long-term commitments by donor countries.
- Lack of clarity on Post-2012 international arrangement related to REDD+ has slowed down the flow of funds from the private sector which still plays only a marginal role in REDD+ financing. There is an urgent need to boost up private sector engagement through a variety of mechanisms and initiatives as several drivers suggest unsatisfied potential demand for REDD+ investments. However, a number of hurdles have to be addressed such as inherent characteristics of forest offsets (permanence, leakage and other risks), eligibility of forest carbon credits in the regulatory markets, high transaction costs and inadequate enabling conditions for investors.
- Without private sector investment REDD+ financing will not deliver its potential for climate change mitigation and its co-benefits for poverty reduction, biodiversity conservation and sustainable development at large on a global scale. Furthermore, the past experience demonstrates that project-based financing as the main modality cannot deliver the targeted benefits on a required scale and therefore other approaches need to be introduced.

Gaps and Overlaps

- The total estimated financing gap for REDD+ readiness (Phase 1) in 16 FCPF countries with complete R-PP budgets on needs and sources is estimated at USD 28 million. The largest shortfalls are reported in Indonesia, Kenya, Argentina and Peru. Madagascar and Suriname have not yet prepared their financing plans but are expected to mainly rely on external sources in meeting their substantial needs for REDD+ Phase 1 (USD 5.6 million and USD 21.2 million, respectively). When more countries join REDD+, the shortfalls are expected to increase rapidly and additional financial resources would be needed.
- Multilateral sources appear to finance more than a half of the financing needs of REDD+ Phase 1 and the role of direct bilateral donor funding is fairly limited being confined to a small number of countries.
- About 40% the total REDD+ external funding goes to high deforestation countries (more than 0.5% per year). The rest is almost equally shared between low deforestation countries and countries with no deforestation or where forest area is expanding.
- About 70% of REDD+ financing goes to high forest cover countries which account for about the same share of the global net deforestation area.

- Due to the heavy concentration of REDD+ funding flows on key recipient countries, there are many geographic gaps. Several countries included in the analysis do not receive any direct external support to REDD+ implementation and in many others the funding is still too limited to have a significant impact. However, REDD+ financing is (and will increasingly be) available for all interested countries from the present funding mechanisms.
- There are two important challenges to address financing gaps: (i) how to finance and implement REDD+ Phase 2 and the necessary transformative investments in the production sector; and (ii) how to effectively engage the private sector so that REDD+ Phase 3 can become a true reality as without its participation large-scale implementation may not be realized.
- In general, overlaps on a country level do not appear significant as yet but the risk is increasing when more funds become available. This issue is already a cause of concern in some major recipient countries which are drawing on several external sources for their REDD+ financing.
- There is a degree of overlap in the scope of multilateral initiatives (particularly FCPF and UN-REDD); their added value and competitive advantages/niches for REDD+ financing need further clarification. Duplication can only be avoided through effective national level coordination in planning of funding sources.
- The relationship between multilateral and bilateral initiatives is not always clear and need more clarity. Existing bilateral initiatives related to REDD+ can be better integrated into national REDD+ processes.
- Formal matching mechanisms between country needs and potential financing sources are largely missing.
- The proliferation of REDD+ financing sources is an advantage for allowing flexibility but it is also a challenge for coordination of funding flows to duly address gaps and avoid overlaps.
- There is an emerging competition for REDD+ funds from a large number of various types of service providers and other intermediaries which is a challenge for avoidance of overlapping activities.

Integration and Scope

- Mainstreaming of REDD+ in sustainable development planning, low carbon strategies and government budgeting is still at initial stages. Intersectoral linkages and integration of REDD+ strategies in relevant national policy and planning frameworks appear to need more attention than in the past.
- Lessons learned could be effectively shared between countries as there are few examples of completed national REDD+ strategies. There is a need to periodically monitor and assess the integration issue in the future.
- Readiness plans do not appear to be duly covering all the necessary areas such as cross-sectoral aspects, establishment of REDD+ asset class, and development of ”supply chain” and “demand” for REDD+ performance-based incentive payments (incl. safeguards, risk mitigation tools, verification and accreditation standards, etc.).
- Increasing focus on demonstration projects in funding may divert attention from a coherent holistic national REDD+ strategy and its systematic implementation. Countries are encouraged to develop national strategies for REDD+ to complement field level implementation to ensure effectiveness.

Participation

- Local ownership is the key for success but REDD+ is often perceived largely as a top-down process.
- In spite of specific resources made available for consultation, stakeholder participation in the REDD+ processes appear to have different levels of coverage and intensity among countries. In particular the low level of involving indigenous peoples and forest communities and landowners is likely to be a cause of concern.
- The domestic and international private sector, forest communities and indigenous peoples should also be fully engaged in the national REDD+ processes from the beginning. These parties are still lacking clarity about their potential role in REDD+ implementation.
- NGOs can play valuable multiple roles in REDD+ implementation but their actions should also be in coordination and coherence with national REDD+ strategies.
- There is a need to keep stakeholder participation and engagement under periodic review to take corrective action if needed. This requires proper records on stakeholder involvement in different phases of the REDD+ process to allow assessment of the scope and intensity of participation for ensuring effective implementation of policy measures and action plans. Further specific guidance for this may be required.

Information

- Data on REDD+ related financing is scattered, incomplete and of varying quality, often deficient. Information on funding flows is difficult to track and data sources are fragmented. In addition, information on the different phases of the ”supply chain” of financing from pledges to disbursements is not consistent. This is due to administrative reasons and as firm commitments can usually only be made within donor government annual budgets.
- There is an element of double counting in the available data of financing flows. This includes bilateral financing of multilateral and regional programs as well as that of many NGO projects and some private sector investments supported by public sector. Double counting can be avoided by comprehensive data on bilateral financing through all the channels deployed (including multilaterals, regional organizations, NGOs and the private sector).
- Efforts to improve the situation through a collaborative action should be continued. This is likely to be an incremental process in which the parties should have clarity on their objectives and responsibilities in monitoring of REDD+ financing flows.
- The Voluntary REDD+ Database under development represents a major step towards enhanced transparency and coordination of REDD+ financing. The initial focus has been on the financing sources side and a major effort is needed to complement the data on partner country needs and how they are being met from various sources.
- Information on existing and future funding flows is inadequate and often inconsistent, partly due the administrative constraints. Integrated nature of projects makes it difficult to classify their inputs for REDD+ and its components.
- Assessment of the quality of data on needs requires further effort; there are clear indications that the quality varies between countries. There is also a need to include a quality assurance system in the development of the VRD.

6.2 Recommendations for Interim Financing

(i) The REDD+ Partnership should develop a clear vision about what should be achieved by partners and by when. This does not, however, mean that everything could or

should be planned precisely; many countries have adopted the stepwise approach, within which the Partnership and its work program will be evolving.

(ii) Cooperative action should be taken to achieve an increased level of harmonization between multilateral, regional and bilateral REDD+ initiatives and sources of financing through, to the extent feasible, increased commonality in the principles and criteria, procedures, financing mechanisms, monitoring and reporting.

(iii) A common country level implementation platform between FCPF, UN-REDD and FIP will be the first step towards improved coordination. The platform should be open for other participants and bilateral donors are strongly encouraged to join to ensure adequate coordination of all inputs. This would facilitate country efforts, help address the existing financing gaps as well as avoid overlaps in programming and financing.

(iv) Coordination should be strengthened at all levels drawing both on formal and voluntary mechanisms. The focus should be in REDD+ country level coordination which should be respected by partners. If there is inadequate country coordination capacity, the lead donor approach, i.e. one of the key donor agencies assuming an initial coordination function, could be drawn on as a transitory measure.

(v) In support to countries preference should be given to substantial, transparent and predictable inputs which could facilitate country-level coordination and efficiency. Inputs from smaller sources can be valuable but should preferably be complementary to other on-going support. Excessive fragmentation of support tends to increase in-country transaction costs and needs for coordination by national lead agencies and participants.

(vi) FCPF should find appropriate mechanisms for accelerating fund disbursement by e.g. drawing on the services of other development partners (e.g. UN-REDD, relevant international organizations, etc.).

(vii) Various delivery mechanisms and initiatives should clarify and effectively communicate on their competitive advantages. Diversification of support channels could help exploit competitive advantages and fill thematic gaps (e.g. REDDES program) but unnecessary proliferation should be avoided.

(viii) Improved methodologies and guidance for estimating short-term and long-term needs of REDD+ implementation should be developed and respective training provided. This would reduce dependency on external consultants.

(ix) Development and use of a common national REDD+ strategy and budget (a single national document) as a framework covering all program areas and funding sources should be encouraged.

(x) Support to on-the-ground REDD preparatory work (land-use planning, tenure clarification, local level, consultation, etc.) should be scaled up to establish enabling conditions for REDD+ implementation which is likely to become a constraint for financing of field level implementation.

(xi) Involvement of the private sector should be promoted including, but not limited to, investment in REDD+ results-based incentive schemes.

(xii) Partnerships among the public sector, the private sector, multilateral and bilateral agencies, and NGOs for REDD+ implementation should be developed drawing on accumulating experience on demonstration projects, among others.

(xiii) Developed countries should take action towards revision of OECD DAC Markers to reflect information needs for monitoring ODA funding flows to REDD+, SFM, biodiversity and related activities.[55] A separate joint initiative should be taken by interested DAC members to develop a proposal which should also target at revising the current breakdowns of related financing for forests and biodiversity, as appropriate.

[55] See OECD (2004)).

(xiv) Monitoring of financial flows to REDD+ should be extended to cover all the sources, including the private sector, NGOs and others.

(xv) To avoid double counting of financing flows, bilateral sources should make available information on their funding flows through all the channels used, separating bilateral country support, support to multilateral and regional programs, support to NGO implemented activities, and support to private sector investments in REDD+.

(xvi) Through international organizations, establishment of an effective knowledge management mechanism should be put in place; this can include promotion of regional initiatives for improved strategies, standards, information sharing, and financing cooperation.

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Annex 1.1

Terms of Reference of the Independent Consultant's Assignment

The analysis will be divided into two parts:

1. A preliminary identification and analysis of REDD+ financing, gaps and overlaps, covering the full scope of REDD+, including financing for, and actions directed towards, building capacity and facilitating enabling institutions in developing countries to better channel finance and technology for REDD+ actions; and
2. An initial set of recommendations on ways to address REDD+ financing gaps and overlaps.

Only the first part (preliminary identification and analysis) will be included in the draft report to be submitted before the Tianjin technical workshop. The second part (recommendations) will be included only in the revised report to be submitted before the Nagoya meetings. Given the very tight deadlines, it is understood that the analysis is provisional and may benefit from revisions in the future.

The first part will focus on the following aspects:

- Identification of the financing needs, as currently identified by forest countries;
- Identification of the sources of financing, as currently identified by donors, forest countries, and other submissions;
- Identification and analysis of gaps and overlaps in the current situation.

Due to short time frame and cost implications, it is proposed that, as a start, the analysis be limited to the available data on needs and sources, without generation of original data. Thus the Independent Consultant is not expected to estimate financing needs for forest countries to cover the three phases of REDD+, for example, but rather to analyze the financing needs expressed by forest countries and the sources declared by donors, and the gaps and overlaps among needs and sources. At some future point, it may be necessary to generate original data, but this process would be covered by a separate (or revised) ToR. Should the Partners decide otherwise, the FMT/PT's proposal would have to be modified accordingly.

The following questions provide a guide for the first part (preliminary analysis):

- Financing needs:
  - Have countries identified their needs for the three REDD+ phases?
  - For those that have, were needs identified in a detailed, bottom-up, approach?
  - Have all the needs been taken into account?
  - Is the REDD+ strategy integrated within a full low-emission development strategy?
  - Do the needs take into consideration on-going or planned programs, including those not labelled REDD+? In other words, are they incremental to, or inclusive of, assistance already available or planned?
  - Are the needs better identified for the earlier REDD+ phases than for the later phases?
  - Are there any apparent tendencies towards under- or over-estimation of the needs?
  - Who has identified the needs?
  - Are the needs identified in a consistent manner across countries?
  - What is the quality of the available data on needs?
  - How easy it is to acquire the data? What are the main data sources? Are the data available in the developing Voluntary REDD+ Database?

- Financing sources:
  - Have current donors identified the specific countries and thematic areas for their pledged financial support considering (i) fast-start; and (ii) beyond fast-start?
  - What REDD+ phases do donors cover?
  - Do the sources take into consideration on-going or planned programs, including those not labelled REDD+? In other words, are they incremental to, or inclusive of, assistance already available or planned?
  - Is the funding available or already programmed?
  - Is the funding earmarked for specific countries or available to all?

- Is the funding tied to specific uses (e.g., obligation to use consultants or purchase equipment from the donor providing the funding)?
- Is there an effort to design funding for REDD+ in a coordinated fashion across donors?
- Are the sources announced in a consistent manner across countries?
- What is the quality of the available data on sources?
- How easy it is to acquire the data? Are the data available in the developing Voluntary REDD+ Database?

- Gaps and overlaps between needs and sources:
  - Are all countries covered? Are there gaps and overlaps between countries?
  - Are all REDD+ phases covered? Are there gaps and overlaps?
  - Specifically, are there gaps in some countries that do not have funding for the REDD+ strategy building phase?
  - Specifically, are there major overlaps? Have deliberate attempts been made to match needs and sources? If so, which ones and how?

The following questions provide a guide for the second part (recommendations):

- If appropriate, should needs be assessed in a better way? If so, how could this be done?
- If appropriate, should the data available on needs be improved? If so, where and how?
- If appropriate, should data on sources be improved? If so, where and how?
- Generally, are there more gaps or overlaps?
- Are there specific forest countries where gaps and overlaps exist?
- What kind of initiative might help improve the matching (reduce the gaps and overlaps) between needs and sources? Are there short-term, easy, solutions? Are there longer-term, more complex, solutions?

The Independent Consultant is expected to consult the following sources of data and information:

- REDD+ Financing and Activities Survey prepared by the Intergovernmental Taskforce, before the May 27, 2010 Oslo conference
- The developing Voluntary REDD+ Database;
- Available country FCPF R-PPs and UN-REDD Joint Program Documents (specifically budget requests, methodologies and justification) and other similar documents;
- Guidance documents for R-PPs, JPDs;
- Abatement costs studies carried out for several countries;
- UNFCCC financial needs assessment;
- FIP design document on financing needs;
- Eliasch review;
- Background documents produced for the IWG-IFR meetings;
- Relevant documents on REDD+ financing produced by CIFOR, WRI, CI, TNC and others;
- Other sources, as appropriate.

Annex 2.1 Creation Dates of the R-PPs and NPDs

Country	Date
FCPF R-PP	
Argentina	14 June 2010
Costa Rica	19 August 2010
DR Congo	15 July 2010
Ghana	January 2010
Guyana	April 2010
Indonesia	May 2009
Kenya	August 2010
Madagascar	8 October 2010
Mexico	February 2010
Nepal	September 2010
Panama	16 May 2009
Peru	September 2010
Rep Congo	June 2010
Suriname	11 January 2009
Tanzania	12 October 2010
Lao PDR	11 October 2010
Vietnam	12 October 2010
Ethiopia	15 October 2010
UN-REDD NPDs	
Bolivia	3 March 2010
DR Congo	2 March 2010
Indonesia	March 2009
Panama	October 2010
Papua New Guinea	March 2009
Tanzania	March 2009
Vietnam	March 2009
Zambia	3 March 2010

Note: These documents were used as the source of budget analyses.

Annex 2.2 FCPF Budgets by Component and Country

Component	- USD 1000 -									
	Argentina	**Costa Rica**	**DR Congo**	**Ghana**	**Guyana**	**Indonesia**	**Kenya**	**Madagascar**	**Mexico**	**Nepal**
Organize and Consult	2,456	1,219	5,580	2,267	1,065	713	2,697	1,408	536	2,857
REDD+ Strategy	4,450	2,240	6,749	1,557	1,355	5,238	5,483	920	7,644	672
Reference Level	765	642	980	2,490	480	6,153	1,366	1,615	1,175	1,355
Monitoring System	1,875	248	8,810	590	2,850	6,475	820	1,446	30,234	2,530
Progam Management			598	430	85	285	60	165		241
Grand Total	**9,546**	**4,349**	**22,717**	**7,334**	**5,835**	**18,864**	**10,426**	**5,554**	**39,589**	**7,655**

Component	- USD 1000 -								
	Panama	**Peru**	**Rep Congo**	**Suriname**	**Tanzania**	**Lao PDR**	**Vietnam**	**Ethiopia**	**Total**
Organize and Consult	3,000	3,856	2,926	10,157	2,452	2,448	1,861	1,325	**48,821**
REDD+ Strategy	500	2,201	7,422	5,853	1,575	7,039	3,066	4,370	**68,334**
Reference Level	300	500	323	3,673	1,555	85	2,487	1,550	**27,494**
Monitoring System	10,200	1,294	810	1,192	1,049	13,945	7,464	120	**91,952**
Progam Management	1,000	116		375	3,470		230	190	**7,245**
Grand Total	**15,000**	**7,967**	**11,481**	**21,250**	**10,101**	**23,517**	**15,108**	**7,555**	**243,847**

Source: FCPF R-PPs (see Annex 2.1)

Notes:

In the R-PPs of Argentina and Ghana there was no figure for Total Budget thus the Total Budget is calculated summing up the components.

In DRC the following two extra sources of cost items were included in "Program Management" component: Fiduciary management and audit fees FCPF (USD 238,000) & Indirect support expenses UNREDD (USD 360,000)

In Indonesia and Panama only the old version of R-PP was available with components different from the new R-PP versions. The budget was therefore reallocated to the present components.

In the R-PP of Lao PDR the Total Budget is USD 23,327,000 but when adding up the budget by components the Total Budget is USD 23,517,000 which was used in calculations.

Annex 2.3 UN-REDD Country Budgets by Component and Country

Component	- USD 1000 -								
	DRC	Bolivia	Indonesia	Panama	PNG	Tanzania	Zambia	Vietnam	Total
Organize and consult	1,612	495	1,600	2,306	1,465	1,100	2,023	1,354	11,955
REDD+ strategy	1,108	2,855	2,275			1,500	192	2,417	10,346
Reference level	260	300	450	800	450	600	729		3,589
Monitoring system	2,160	750	950	2,194	500	600	1,252		8,406
Program management						200		350	200
Indirect support cost	360		294		169	280	294		1,036
Grand total	5,500	4,400	5,569	5,300	2,584	4,280	4,490	4,121	35,533

Source: UN-REDD National Programme budgets (see Annex 2.1)

Notes: In Indonesia and Vietnam the total budgets calculated by summing the components in this table differ from the reported Total Budget in the NPDs (Indonesia USD 5,644,000, Vietnam USD 4,505,000).

Annex 2.4 Comparison of Cost Estimates of FCPF Readiness Plan Idea Notes (R-PINs) and Readiness Project Proposals (R-PPs)

Component	R – PINs (2008)		R – PPs (2010)		Eliasch review****
	Average*	Range	Average	Range	Range
	- USD 1000 -				
1. Plan and organize**)	890	520-1,297	3,020	540-10,240	150-2,000
2. REDD+ strategy***)	841	550-1,240	4,860	670-16,000	900-2,500
3. Reference scenario	516	200-1,200	1,410	300-6,150	1,000-4,000
4. Monitoring system	1,008	250-1,560	4,540	248-30,240	..
Total	**3,255**	**2,050-4,627**	**13,830**	**4,060-39,540**	**2,050-8,500**

* Average for small and medium-sized countries

** R-PINs include costs of REDD management, consultations

*** R-PINs include development of REDD Strategy, environmental and social impact assessments and design of REDD implementation framework

**** The cost breakdowns are not the same as in R-PINs and R-PPs. Costs of REDD strategy include here also REDD implementation framework. Plan and organize include only consultations. No cost estimate was prepared for design of monitoring system which is partly included in the costs of reference scenario.

Sources: R-PINs – World Bank (2008); R-PPs original budget estimates, Eliasch (2008)

Annex 2.5 Approximate Cost Estimates for Forest Carbon Monitoring in 25 Developing Countries

Total costs USD 1000	First year*			
Approach	**Mean**	**Median**	**Max**	**Min**
Tier 2	958	343	7,728	142
Tier 3 including degradation	1,042	399	8,986	133
Tier 3 ignoring degradation	882	287	7,728	54
	Recurrent costs**			
Approach	**Mean**	**Median**	**Max**	**Min**
Tier 2	241	106	1,906	71
Tier 3 including degradation	356	144	2,995	110
Tier 3 ignoring degradation	305	126	2,587	54
Unit costs USD /ha	**First year***			
Approach	**Mean**	**Median**	**Max**	**Min**
Tier 2	40	18	176	9
Tier 3 including degradation	44	21	204	2
Tier 3 ignoring degradation	37	18	176	2
	Recurrent costs**			
Approach	**Mean**	**Median**	**Max**	**Min**
Tier 2	10	5	44	2
Tier 3 including degradation	15	7	67	2
Tier 3 ignoring degradation	13	6	58	2

* or in Tier 2 A one-off

** or in Tier 2 B recurring

Source: Calculated based on Hardcastle & Baird (2008) as reported in UNFCCC (2009) in Table 9

Annex 3.1 REDD+ Related Funding Sources of Developing Countries

REDD+ countries and other participants	Multilateral & regional programs						Bilateral programmes and projects	CDM[1)]	NGOs[2)]
	Forest Carbon Partnership Facility	Forest Investment Program	UN-REDD Programme	Congo Basin Forest Fund	GEF	ITTO REDDES			
Albania									
Argentina	.		Partner						
Azerbaidjan*)									
Bangladesh*)			Partner						
Belize									
Benin*)									
Bolivia	.		Pilot						
Brazil [3)]						4)			
Brunei*)									
Burkina Faso*)									
Burundi									
Cambodia	.		Partner						
Cameroon	.								
Central Africa Republic	.		Partner						
Chad									
Chile*)	.								
China									
Colombia	.		Partner						
Costa Rica	.		Partner						
Côte d'Ivoire*)									
Dem. Rep. of Congo	.		Pilot						
Dominica									
Dominican Republic									
Ecuador			Partner 5)						
El Salvador*)	.								
Equatorial Guinea	.								
Ethiopia*)	.								
Fiji Islands									
Gabon	.		Partner						
Ghana	.								
Guatemala	.		Partner						
Guinea Bissau*)									
Guyana	..		Partner						
Honduras	.								
India									

REDD+ countries and other participants	Multilateral & regional programs						Bilateral programmes and projects	CDM[1)]	NGOs[2)]
	Forest Carbon Partnership Facility	Forest Investment Program	UN-REDD Programme	Congo Basin Forest Fund	GEF	ITTO REDDES			
Indonesia	.		Pilot						
Kenya	.		Partner						
Korea DR									
Lao PDR	.								
Liberia*)	.								
Madagascar	.								
Malaysia									
Malawi*)									
Mali									
Mexico	.		Partner						
Morocco*)									
Mozambique*)	.								
Myanmar*)									
Nepal			Partner						
Nicaragua*)									
Nigeria			Partner						
Pakistan									
Panama	.		Pilot						
Papua New Guinea	.		Pilot						
Paraguay*)	.		Pilot						
Peru	.								
Philippines			Partner						
Rep. of Congo	.		Partner						
Rep. of Korea									
Rwanda									
Sao Tomé & Principe									
Senegal*)									
Sierra Leone									
Singapore									
Solomon Islands			Partner						
South Africa									
Sri Lanka*)			Partner						
Sudan*)			Partner						
Suriname	.								
Tanzania*)	.		Pilot						
Thailand	.								
Togo									

REDD+ countries and other participants	Multilateral & regional programs						Bilateral programmes and projects	CDM[1)]	NGOs[2)]
	Forest Carbon Partnership Facility	Forest Investment Program	UN-REDD Programme	Congo Basin Forest Fund	GEF	ITTO REDDES			
Tunisia*)									
Uganda	.								
Uruguay									
Vanuatu	.								
Venezuela*)									
Vietnam			Pilot						
Zambia*)			Pilot						
Total	**38**	**8**	**9+19**	**10**	**40**	**8**	**37**	**17**	**22**

*) Not a member of REDD+ Partnership
1) Includes the 17 registered projects and the 26 projects in the validation process. (See Annex 3.6)
2) Includes only Conservation International, Wildlife Conservation Society and The Nature Conservancy
3) Includes Amazon Fund which can also finance activities in other countries of the Amazon Basin
4) Includes a regional project for all ACTO countries
5) UNDP has established a Trust Fund for Ecuador

Sources: REDD+ financing Survey, REDD+ Voluntary Data Base, program websites, www.cdm.unfccc.int/Projects/index.html

Annex 3.2 Financing of Multilateral and Regional REDD+ Programs by Source from 2008 Onwards

Program	FCPF[1]		FIP	UN-REDD	ITTO-REDDES	CBFF	GEF[2]	Other international/ regional programs[3]	Total[4]
	Readiness Fund [1]	Carbon Fund							
	- USD million -								
Bilateral sources									
Australia	17.6 (9.5)		9.0					17.3	35.8
Belgium							10.0		10.0
Canada	40.0								40.0
Denmark[5]	5.8 (4.5)		10.0 (7.5)	4.0 (8.0)			27.8	4.4	52.2
European Commission[6]	17.6	6.6						67.9	92.1
Finland	9.0 (14.0)							28.7	42.7
France	5.2 (5.0)						37.0	7.0	49.0
Germany	24.5 (28.7)	26.9 (14.4.)						16.1	59.2
Japan	14.0 (10.0)		60.0		0.2				70.2
Netherlands	20.3 (20.0)								20.0
Norway	30.2	10.0	144.0 (150.0)	84.3(142)	3.9 (8.3)	83.3	6.0	110.0	539.8
Sweden	..						8.4	30.9	39.3
Spain	7.0			1.0			22.6	7.6	38.2
Switzerland	8.2 (13.5.)			(4.0)	0.3 (1.8)	0.2	8.0	9.3	36.8
UK	5.3 (3.5)	17.5 (11.0)	152.0 (100.0)			76.0 (50.0)			250.8 (164.5)
USA	5.0	10.0	20.0		0.0		13.0	80.8	126.1
Others									
TNC	5.0							50.0	
Total	**209.7**	**76.0**	**558.0[7]**	**108.5**	**4.4**	**166.6**	**750.0[8]**	**380.0**	**2,283.2[9]**

Sources: VRD database, program websites, the total amounts partly based on donor websites and donor survey.

1) Expected contributions as at October 2010. Other amounts are committed apart from pledges from Germany (USD 24.5 m) and Japan (USD 4.0 m). Figures in brackets refer to agreed funding as reported by countries to the REDD+ VRD. The differences are explained by the difference between pledges (expected funding) and agreed amounts, as well as different exchange rates used. Column totals have been calculated based on expected contributions.
2) GEF contributions are not formally earmarked but appear so in the case of some donors.
3) This column includes a whole range of global, regional and sub-regional programs and projects of donors which are financed bilaterally or through other international or regional organizations not listed in the table.
4) Total based on country submissions. The country reported figures are given in brackets in the table and the row totals are calculated based on them.
5) Only for 2010.
6) The amount to the Readiness Fund was calculated as the difference between the total (USD 24.2 mill.) and the earmarked amount to the Carbon Fund (USD 6.6 mill.) The data covers up to Fiscal Year (FY) 2010 only. The US assumes that 12.9% of its total contribution to the GEF in FY10 will be dedicated to REDD+ related investments.
7) Expected contributions as at October 2010. The total includes USD 159 million of concessional financing while USD 399 million is expected as grant contributions.
8) Total GEF contribution from the incentive mechanism of the SFM-REDD+ program is USD 250 mill. It can leverage up to USD 750 million for countries' STAR allocations. It has been assumed here that USD 500 million of STAR allocations will be used for REDD+. The actual amount depends on countries' willingness to invest their STAR allocations from Biodiversity, Land Degradation and Climate Change focal areas into SFM.
9) This is the total of sums reported by the programs (not by donors); the total of country contributions is less (see footnote 1). The concessional financing of FIP is not included in donor contributions. Some pledges to multilateral and regional programs are not yet confirmed by agreed commitments. Reporting periods may also vary. The difference between the vertical and horizontal sums is also influenced by exchange rates.

Annex 3.3 REDD+ Financing from Bilateral and Multilateral Sources by Recipient Country from 2008 Onwards

Recipient country	Bilateral	Multilateral	Total	Bilateral	Multilateral	Share of all countries
	- USD million -			% of country total		%
Indonesia	1,450.5	113.2	1,563.7	93	7	30.2
Brazil	1,136.5	30	1,166.5	97	3	22.6
India	982.4	0	982.4	100	0	19.0
Guyana	254.5	4.0	258.5	98	2	5.0
China	118.1	6.1	124.2	95	5	2.4
Tanzania	109.2	11,6	120.8	90	10	2.3
Vietnam	109.9	8.0	117.9	93	7	2.3
Lao PDR	61.4	3.6	65.0	94	6	1.3
Dem. Rep. of Congo	23.1	32.3	55.4	42	58	1.1
Ethiopia	40.8	3.6	44.4	92	8	0.9
Nepal	39.5	3.6	43.1	92	8	0.8
Chad	6.1	33.6	39.7	15	85	0.8
Ghana	30.6	3.6	34.2	89	11	0.7
Mexico	22.9	11.3	34.2	67	33	0.7
Bolivia	17.3	14.5	31.8	54	46	0.6
Malaysia	26.4	4.8	31.2	85	15	0.6
Honduras	29.0	0	29.0	100	0	0.6
Tunisia	28.2	0	28.2	100	0	0.5
Myanmar	27.0	0	27.0	100	0	0.5
Kenya	18.0	8.7	26.7	67	33	0.5
Cambodia	20.7	2.6	23.3	89	11	0.5
Peru	16.7	5.6	22.3	75	25	0.4
Papua New Guinea	9.9	10.0	19.9	50	50	0.4
Senegal	16.5	2.9	19.4	85	15	0.4
Mali	16.7	1.8	18.5	90	10	0.4
Ecuador	14.6	3.1	17.7	82	18	0.3
Uganda	15.0	0.2	15.2	99	1	0.3
Gabon	7.6	7.1	14.7	52	48	0.3
Philippines	14.6	0	14.6	100	0	0.3
Cameroon	2.3	12.1	14.4	16	84	0.3
Burkina Faso	13.2	0.9	14.1	94	6	0.3
Mozambique	13.4	0	13.4	100	0	0.3
Paraguay	0	13.3	13.3	0	100	0.3
Bangladesh	13.3	0	13.3	100	0	0.3
Malawi	12.8	0	12.8	100	0	0.2
Panama	2.5	8.9	11.4	22	78	0.2
Liberia	6.4	4,6	11.0	58	42	0.2
Zambia	5.0	4.5	9.5	53	47	0.2
Madagascar	5.7	3.6	9.3	61	39	0.2
Colombia	1.3	6.3	7.6	17	83	0.1
Nicaragua	0.8	6,2	7.0	11	89	0.1

Recipient country	Bilateral	Multilateral	Total	Bilateral	Multilateral	Share of all countries
	USD million			% of country total		%
Thailand	7.0	0	7.0	100	0	0.1
Guatemala	4.3	0.1	4.4	98	2	0.1
Venezuela	0	4.2	4.2	0	100	0.1
Sudan	0	4.1	4.1	0	100	0.1
Rep. of Congo	2.7	1.2	3.9	69	31	0.1
Costa Rica	0	3.6	3.6	0	100	0.1
Suriname	3.2	0	3.2	100	0	0.1
Benin	0	2.9	2.9	0	100	0.1
Central African Republic	0.4	1.8	2.2	18	82	0.0
Rwanda	2.0	0	2.0	100	0	0.0
El Salvador	1.8	0	1.8	100	0	0.0
Albania	1.6	0	1.6	100	0	0.0
Nigeria	1.5	0	1.5	100	0	0.0
Guinea Bissau	0	1.0	1.0	0.0	100	0.0
Uruguay	0.7	0	0.7	100	0	0.0
Solomon Islands	0	0.6	0.6	0	100	0.0
Korea DR	0.5	0	0.5	100	0	0.0
Côte d'Ivoire	0.0	0.4	0.4	0	100	0.0
Azerbaijan	0.3	0	0.3	100	0	0.0
Argentina	0	0.2	0.2	0	100	0.0
Vanuatu	0	0.2	0.2	0	100	0.0
Total	**4,766.2**	**406.5**	**5,172.7**	**92**	**8**	**100**

Sources: VRD database, country survey results

Notes:

- The data covers the period from 2008 onwards, typically up to 2012 but in some cases up to 2015.
- Bilateral sources include Australia, Denmark, EC, Finland, France Germany, Japan, Norway, Sweden, Switzerland, United Kingdom and the USA. The bilateral column also includes projects from three US-based NGOs.
- The table includes only financing flows to designated recipient countries. Projects and programs with more than one country have not been included. Several countries received additional funding through such arrangements, including some countries not listed in the table. Therefore, there is no funding indicated e.g. to Brunei, Domincan Republic, Equatorial Guinea, Singapore even though they receive funding through regional programs or projects.
- The following countries have no reported funding support to REDD+ as yet: Belize, Burundi, Chile, Dominica, Morocco, Pakistan, Republic of Korea, Sao Tomé & Principe, Sierra Leone, Republic of South Africa, Sri Lanka, and Togo (cf. Annex 3.1).
- Multilateral and regional sources include FCPF, UN-REDD, FIP, GEF, ITTO REDDES, and CBFF. The GEF country contributions do not include the following items (i) USD 7.6 mill, to a project for Argentina, Bolivia and Paraguay; (ii) USD 5.0 mill, to a project for Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand; and (iii) USD 17.8 mill, to a regional Congo Basin project.
- The multilateral and funding flows are from REDD+ designated programs. In the case of bilateral donors, there are apparently differences in the interpretation of what is REDD+ funding. As an example, the European Commission data included financial commitments revised according to OECD DAC Rio Markers on Climate Change (adaptation and mitigation). If the principal objective of a project was climate change mitigation/ adaptation, the total amount was accounted (Rio Marker 2). If the project's main objective was not climate change mitigation/adaptation but it is contributing to this objective, 40% of the total commitment was included (Rio Marker 1).
- In addition to grant funding, the table includes a few loans (to India and Indonesia).
- The table does not include data on CDM and voluntary carbon markets

Annex 3.4 Developing Country Contributions to National REDD+ Programs

Country	USD mill.	Description
Cameroon	27.2	Reforestation, forest management and the fight against illegal exploitation.
Honduras	245	Reforestation, fire control, capacity building, technical assistance
Nigeria	3	Consultations, development and enforcement of legislation, and development policies
Papua New Guinea	22.68	Not available
Uganda	..	Government financing to REDD+ is in kind

Source: REDD+ Voluntary Data Base consulted November 8, 2010

Annex 3.5 Registered and Pipeline CDM A/R Projects

Country	Pipeline		Registered		Total		
	Number	tCO_2	Number	tCO_2	Number	CO_2	%
China	1	1,124	3	136,133	4	137,257	3
India	6	888,657	3	72,982	9	961,639	20
Lao PDR	1	40,672	0	0	1	40,672	1
Vietnam	0	0	1	2,665	1	2,665	0
Sub-total Asia	**8**	**930,453**	**7**	**211,780**	**15**	**1,142,233**	**23**
Dem. Rep. of Congo	2	242,961	0	0	2	242,961	5
Ethiopia	0	0	1	29,343	1	29,343	1
Ghana	1	2,035,646	0	0	1	2 035,646	42
Kenya	1	48,689	0	0	1	48,689	1
Tanzania	1	104,122	0	0	1	104,122	2
Uganda	4	26,799	1	5,564	5	32,363	0
Sub-total Africa	**9**	**2,458,217**	**2**	**34,907**	**11**	**2,493,124**	**51**
Argentina	1	191,881	0	0	1	191,881	4
Brazil	3	339,429	1	75,783	4	415,212	9
Bolivia	0	0	1	4,341	1	4,341	0
Chile	1	8,104	1	9,292	2	17,396	0
Colombia	3	312,538	1	37,783	4	350,321	7
Nicaragua	1	7,915	0	0	1	7,915	0
Paraguay	0	0	1	1,523	1	1,523	0
Peru	0	0	1	48,689	1	48,689	1
Sub-total Lat. America	**9**	**859,867**	**6**	**177,411**	**15**	**1,037,278**	**21**
Albania	0	0	1	22,964	1	22,964	0
Moldova	0	0	1	179,242	1	179,242	4
Sub-total Europe	**0**	**0**	**2**	**202,206**	**2**	**202,206**	**4**
Grand total	**26**	**4,248,537**	**17**	**626,304**	**43**	**4,874,841**	**100**
%	**60**	**87**	**40**	**13**	**100**	**100**	

Source: Data collected from http://cdm.unfccc.int/Projects/projsearch.html

Notes: Projects included taken into account only once even though presented multiple times in the CDM database.
The pipeline includes projects with the status: (i) Validation activities are still ongoing, (ii) Project activity has later been republished for global stakeholder consultation, (iii) Letter of Approval from Parties awaited, (iv) Corrective action or clarification has been requested.

Annex 3.6 Examples of Demonstration Projects with Private Sector Participation

Country	Project	Sources of funding	Activities	Status	Investment USD mill.	Area 1000 ha	Emission reductions M tCO_2
Cambodia	CFI Carbon	DANIDA	Forest restoration and protection, NTFP, community development	Planning	0.4	71.6	326,0/yr (293,440/ yr net)
Indonesia	Ulu Masen (Aceh)	Merril Lynch	Law enforcement, community funding, forest protection	Ongoing	59.0	750.0	3,369/yr
	Kalimantan Forest and Climate Partnership	Australian government BHP Billiton	Local community participation, forest conservation, TDERUs	Planning	30.0	120.0	
	West Kalimantan, Ketapang, Kampuas, Hulu	PT, Macquavie Bang	Community carbon, pool, reduced land fragmentation and conversion	Planning	..	157.0	
	Kalimantan, Meru Betripi National Park	7 & I-Holdings ITTO	Monitoring system community capacity	Ongoing	1.0	58.0	
	Papua Carbon project	CI and FFI	Restoration, protection, planning, SFM, RIL	Ongoing	..	265.0	1.0-2,0/yr
	Marias Peatland land conservation	Dutch government Shell Canada	Forest conservation on peatlands	Planning		364.0	1.4
	Sebanyan REDD+	Deutsche Post	..	Planning		580.0	
Madagascar	Makira Forest Conservation	Mitsubishi, Navtech, Peal Jam, Imperial Tobacco, others	Biodiversity protected conservation, potential area, land-use planning	Ongoing	0.4 (initial)	350.0	9.5 (30 years)
Bolivia	Noel Kempff	GTZ, AEP, Pacific Corp., BP	Community funding, park mana-gement, habitat conservation	Ongoing	9.5 (start-up)	642.0	5.8 (30 years)
Brazil	Bolsa Floresta	BRADESCO	PES to communities, community funding, forest conservation	Ongoing		17,000.0	..
	Climate Action Project Guaraqueçaba, protection area	AEP, General Motors	Conservation easement, sustainable land use, A/R	Ongoing	10.0	14,000.0	47,0 (40 years)
	JUNA Reserve RED	Amazon Fund, Marriott Intl, FAS	Community forestry, sustainable business, law enforcement	Ongoing	2.9	589.6	190.0 (50 years)
	Genesis Forest Project, Tocantíns	Petrobras, HSBC, Banco do Brasil, FNMA, Brazil Power, Natura	Restoration, avoidance of fragmentation, reforestation, conservation, community engagement	Planning	..	121.4	57.4
	Rio Bravo Carbon	Cinergy, Edison, Nexen,	Biodiversity, buffer zones, protection	Ongoing	5,6	21.0	8.8

Country	Project	Sources of funding	Activities	Status	Investment USD mill.	Area 1000 ha	Emission reductions M tCO_2
	Sequestration	Pacific Corp., Suncor, Utilitree Carbon Co, Wisconsin Electric Power	area, recreation		(10 years)		(40 years)
Costa Rica	Ecoland, Piedras Blancas	Tenasca Power Partner, Rainforest Austria, National Fish & Wildlife Foundation	Land purchase and management	Ongoing	0.9 (partial)	2.5	0.04/yr
El Salvador	Avoided Deforestation in Coffee Forest	BMI, Government	Sustainable agroforestry	Ongoing	..	160.0	6.7.7 (10 years)
Guatemala	Mi Bosque	AES					
Panama	The Ipeti REDD+	HSBC, WWF, Bluemoon Fund, GEF	Forest plantation and conservation	Planning	..	3.1	43.7 (25 years)

Sources: Wertz-Kanounnikoff & Kongphan-apirak (2009); ITTO Secretariat

Annex 4.1 Identified Financing Sources of R-PP Budgets

Source	- USD 1000 -								
	Argentina	**Costa Rica**	**DR Congo**	**Ghana**	**Guyana**	**Indonesia**	**Kenya**	**Mexico**	**Nepal**
Domestic	2,290	195		1,705	605			27,276	335
Multilateral	3,490	3,475	9,500	5,629	3,600	3,600	3,400	6,691	3,595
Bilateral					1,630	2,000		5,622	3,724
Other identified		220	11,990						
Total	**5,780**	**3,890**	**21,490**	**7,334**	**5,835**	**5,600**	**3,400**	**39,589**	**7,655**

	Panama	**Peru**	**Rep. of Congo**	**Tanzania**	**Vietnam**	**Lao PDR**	**Ethiopia**	**Total**
Domestic	1,000		231	1,469	2,330	319	2385	**40,140**
Multilateral	14,000	5,581	11,250	3,478	9,341	23,008	5,170	**114,808**
Bilateral				5,590	3,477			**22,043**
Other identified								**12,210**
Total	**15,000**	**5,581**	**11,481**	**10,537**	**15,148**	**23,327**	**7,555**	**189,201**

Source: R-PP Budgets

Note: The budgets of Madagascar and Suriname did not include a financing plan. The R-PP budget of Lao PDR does not here include USD 600,000 coming from bilateral sources for REDD+ readiness representing 2.6% of the total needs; the information was provided separately as an Annex in R-PP.

Annex 4.2 Comparison of FCPF and UN-REDD Budgets

Component	FCPF				UN-REDD			
	%of total	- USD 1000 -			% of total	- USD 1000 -		
		Average	Min	Max		Average	Min	Max
Organize and consult	20	2,712	536	10,157	33	1,494	495	2,306
REDD+ strategy	28	3,796	500	7,644	29	1,724	192	2,855
Reference level	11	1,527	85	6,153	10	513	260	800
Monitoring system	38	5,108	120	30,234	23	1,201	500	2,194
Progam management	3	557	60	3,470	2	275	200	350
Indirect support cost					4	279	169	360
Grand total	**100**	**13,547**	**4,349**	**39,589**	**100**	**4,530**	**2,584**	**5,569**

Source: Calculated based on Annexes 2.2 and 2.3
Note: Indirect support costs are only included in UN-REDD.

Annex 5.1 Stakeholder Participation in the Elaboration of FCPF R-PPs

Stakeholder group	Share of countries %
Ministry of planning etc.	50
Environmental ministry	44
Natural resource ministry	22
Forest authority	67
Other government bodies	78
Private sector	33
National consultants	6
International consultants	78
University/research institutes	78
National NGO	67
Indigenous peoples	33
Forest communities/landowners	11
Intergovernmental	44
Bilateral donors	44
International NGO	56
Other	11
Scope of participation	**Share of countries %**
Broad (10 or more groups identified)	22
Medium (6-9 groups identified)	39
Narrow (less than 6 groups identified)	39
Total	**100**

Source: R-PP documents