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**FINANCING SUSTAINABLE FORESTRY: ISSUES UNDER
INTERNATIONAL DELIBERATION**

MAHENDRA JOSHI
UNDP Programme on Forests and the IFF Secretariat

April 1999

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PREFACE

This background document has been prepared to facilitate discussion on matters left pending on financing needs at the Third Session of the Intergovernmental Forum on Forests (IFF), 3-14 May 1999 in Geneva. This document presents a review of financial and economic aspects of the sustainable forest management (SFM) issues under discussion at the IFF. This is intended to be an informal document, and is published only in English.

The paper is produced jointly by the UNDP Programme on Forests (PROFOR) and the IFF Secretariat. The UNDP Programme on Forests is based on the 'Proposals for Action' of the Intergovernmental Panel on Forests (IPF), to provide continued UNDP support to the IFF, as well as serving as lead implementing agency for the IFF on matters related to forest finance. PROFOR has recently commissioned two studies to address issues raised by the IFF at its Second Session: *Financial Mechanisms for Sustainable Forestry* and *An Assessment of ODA Financial Flows in the Forest Sector*. The first study was conducted by a team of experts consisting of Pedro Moura Costa, Markku Simula, Jyrki Salmi, and Charlie Wilson, of EcoSecurities and Indufor OY. The second study was conducted by Anand Madhvani from the Overseas Development Institute (ODI).

Mahendra Joshi, whom works jointly for PROFOR and the IFF Secretariat, was responsible for most of the literature searches and compilation of information. Ralph Schmidt collaborated on framing the questions and structuring the document.

This paper drew heavily upon many sources for its information and concepts, overlapping with certain works. Most of the financial flows data was adopted from Anand Madhvani's report. The majority of the chapter on financing strategies for sustainable forest management (Chapter V) is based on the report by Pedro Moura Costa, et al.

Please note that this document is a working draft, still under consultation and open to comment. It will be revised and updated based on new information and insight.

EXECUTIVE SUMMARY

The forest sectors in most developing countries have substantial needs for funding for sustainable forest management, but are constrained by many factors. Many aspects of policy deliberations on financial issues can be greatly advanced by clarifying the underlying economic complexities in financing forestry operations. This background document has been prepared to facilitate the discussion of IFF Programme Element II.a: 'The Need for Financial Resources', at its Third Session (3-14 May 1999, Geneva). It describes the findings of two recently concluded studies prepared for the UNDP Programme on Forests: *Financial Mechanisms for Sustainable Forestry* and *An Assessment of ODA Financial Flows in the Forest Sector*. This document also examines issues around the global externalities associated with forests, in the context of the proposed international forest fund, as well as briefly reviewing existing environmental and forest funds, such as the GEF and the Bali Partnership Fund.

There are no systematic databases of forestry ODA flows. A preliminary estimate suggests that ODA commitments appear to have risen over the late 1980s, and reached their highest levels (in excess of US\$2.0 billion, in 1996 prices) from 1990 to 1992. Levels have subsequently fallen to lower levels. It is difficult to explain this declining trend, partly in light of the growing popularity of parallel funding of forestry activities under environmental, biodiversity conservation, and rural development programmes. Nevertheless, the level of ODA seems less than the targets set by Agenda 21 for international public funds for the forest sector.

Forests produce many positive externalities. Most often, such benefits are enjoyed by many other than those whom manage the forest. For example, the environmental services of a given forest may benefit many countries other than the country in which that forest actually stands. However, the costs of preventing deforestation and sustainably managing said forest accrue to the nation and/or area in which the forest actually stands. The same is true of negative externalities (such as global warming) due to deforestation, where the damage would be felt outside the borders of the country being deforested. Both negative and positive externalities are felt by many other than the country and/or area responsible. There is a need to take this into account, and develop mechanisms for payment and/or compensation for the trans-boundary services provided by forests.

GEF is one major international source of public funding. However, although important, it cannot fund all aspects of SFM. Regarding the proposed international forest fund, it seems the highly decentralised and apparently uncoordinated system of financial cooperation that now exists contrasts with a single international fund system. There are positive and negative aspects to both centralised and decentralised systems; they should be assessed according to their relative merits. Given the importance of the private sector, an innovative investment promotion entity is proposed in this paper, to draw upon public resources and to leverage private support for a variety of commercial and non-commercial activities towards SFM, including those in low forest-cover countries.

Most of the IPF conclusions and 'Proposals for Action' are still valid and very much worth pursuing. In addition, countries and relevant organisations need to cooperate-- to maximise the effectiveness of existing resources, explore new sources and mechanisms (including those related to climate change and biodiversity), enhance the institutional capacity of developing countries, improve financial flows databases, and consider issues around an international fund to support SFM.

CHAPTER 1. INTRODUCTION

1.1. Background

1.1.1. *UNCED and Forests*

Financing sustainable forestry in developing countries has remained one of the key questions for international policy deliberations on forests since the 1992 United Nations Conference on Environment and Development (UNCED). Chapter 11 of Agenda 21, 'Combating Deforestation', gave estimates of the financial need and identified the sources and approaches to support sustainable forest management (SFM). Chapter 33, 'Financial Resources and Mechanisms', laid out some general strategies to mobilise financial resources to implement chapters of Agenda 21. However, significant improvement in resource allocation targeting sustainable forest management in developing countries has yet to be seen.

Forests are complex and dynamic ecosystems, comprised of plants, animals, and micro-organisms and, to a limited extent, humans. The multiple functions of forests are valued differently by various groups of users, such as rural farmers, forest dwellers, timber producers, recreational users, and so forth. Striking a balance between the divergent needs and interests of various users (both spatially and temporally separated) is the challenge the world faces today.

The sovereign power of nations to utilise their forest resources for economic development, meeting basic domestic and industrial needs, and trade external in forest products sometimes clash with the transboundary global environmental benefits (and costs) of forestry practices. These conflicting interests and demands by different stakeholders on forestland and its management are the crux of the issue. While under-investment and dis-investment in tropical forests seem to be problems internal to developing countries, the benefits of the free-flowing 'public-goods' from those forests (as well as the potential detrimental impacts of their destruction) extend well beyond national borders. This reality has prompted governments to consider various approaches to international cooperation for financing sustainable forest management worldwide. The establishment of the Intergovernmental Panel on Forests (IPF) in 1995 by the UN Commission on Sustainable Development (UNCSD) helped advance the agenda on forest finance at the international level.

1.1.2. *The IPF Process*

The issue of financial assistance has been substantially discussed during the two-year (1995-97) policy deliberations of the Intergovernmental Panel on Forests (IPF). In its final report, the IPF concluded that (UNCSD 1997):

- current financial resources in the forest sector of developing countries were insufficient;
- financial needs should be met by domestic sources when possible, but international financial sources are vital as well;
- the Overseas Development Assistance (ODA) remains the main source of external public funding, particularly in those developing countries with low forest cover;
- the declining trend in ODA is a matter of concern;
- forestry projects contributing to global environmental benefits should also get support through available international mechanisms, such as the GEF programs;
- private capital flows to developing countries are encouraging but the flows are unevenly distributed

- among countries;
- there is a need for enhanced international cooperation to address the developing countries problems of debt;
- market-based instruments, such as taxes, levies, user fees and domestic public investments could generate additional financial resources;
- properly valuing forest resources and creating markets that reward sustainable forest management would contribute to SFM; and
- in-country coordination among donors is crucial.

Based on those findings, the Panel proposed specific activities by member countries for sustainable forest management. The Panel urged all countries, both developed and developing, as well as international organisations, to:

- act collectively to increase financial resources;
- increase ODA, but also improve the absorptive capacity of developing countries to use such resources and enhance their domestic revenue generation capacity; and
- improve coordination amongst and between donors and recipient countries, base coordination and collaboration on country-driven national forest programs, to avoid duplications or inefficient allocation of international public funds.

The Panel urged developing countries to:

- prioritise forestry activities, internalise externalities associated with land use and forest policies, maximise rent capture, reinvest a greater share of forest revenues into sustainable forestry, and improve coordination;
- encourage private sector investments in forestry through various financial and tax incentives;
- increase revenues through market-based instruments;
- encourage voluntary codes of conduct by the private sector; and
- encourage mobilising local community financial resources.

The Panel also recalled the Rio declaration, which states that new and additional financial resources should be provided to developing countries for SFM, and urged the donor community to:

- work with developing countries to identify their needs and existing resources for SFM;
- increase concessional lending through international institutions;
- continue efforts to find efficient, equitable, development-oriented and durable solutions to the debt problems of developing countries; and
- encourage their domestic private sector to invest in SFM activities in developing countries through appropriate financial incentives and guarantees.

Many of the conclusions and proposals for action of the IPF remain valid and relevant today. Therefore, while focusing on new or unresolved issues in financial resources, it seems equally important to continue to focus attention on the implementation of the existing IPF Conclusions and Proposals for Action.

1.2. The IFF Process

1.2.1. *The IFF mandate on Financial Resources*

The Intergovernmental Forum on Forests (IFF) was established in 1997 by a special session of the UN General Assembly, to continue international forest policy deliberation to consider, inter alia, outstanding issues on financial needs for SFM. IFF, in its first session (October 1997), was given the following mandate under its work Programme Element II.a: The Need for Financial Resources (UNDESA 1997):

“Consider urgently the following options for action, as contained in paragraph 68 of the report of the IPF on its fourth session:

- (i) *to urge the establishment of an international fund to support activities for sustainable forest management;*
- (ii) *to pursue action to enhance funding in other ways, inter alia, by inviting the United Nations Development Programme and the Bretton Woods Institute, together with other relevant international organisations, to explore innovative ways both to use existing financial mechanisms more effectively and to generate new and additional public and private financial resources at the domestic and international levels in order to support activities for the management, conservation and sustainable development of all types of forests.”*

1.2.2. *Observations and Guidance from the IFF-II*

This topic received a preliminary discussion at its Second Session in Geneva (August-September 1998). During this discussion, the participants observed that:

- reliable data on both public and private financial flows and investments in the forest sector were often difficult to obtain;
- ODA was decreasing;
- more ODA could be channelled into the forest sector if an enabling environment is created and if sustainable forest management were given higher priority within national development strategies;
- there was a need to further examine the potential of innovative financial mechanisms and schemes to mobilise resources for sustainable forest management;
- the private sector had an important role in financing sustainable forest management; and
- more work on the issue of 'perverse' subsidies was needed.

The participants expressed the need for (i) updated financial flow data; (ii) a compilation of country experiences on new and innovative financial mechanisms; and (iii) a synthesis of evaluations of the effectiveness of currently existing international funds. In addition, they also expressed a need to see (iv) closer coordination and collaboration between the Secretariats of the IFF and the UN Framework Convention on Climate Change (FCCC); and (v) identification of the special needs of developing countries with low forest cover.

1.3. Purpose and Outline

1.3.1. Purpose

This document has been prepared to compliment the report from the Secretary General on IFF Programme Element II.a: The Need for Financial Resources, through additional information on financial flows data, issues of externalities in forest financing, and some potential financial mechanisms.

1.3.2. Outline

This document is organised in the following way. Chapter 2 provides a detailed account of the study undertaken to estimate current financial flows in the forest sector, as instructed by the IFF-II. It assesses the available databases and presents a new estimate of ODA flows. Chapter 3 provides basic information on the economic and financial issues of the forest sector.

Chapter 4 analyses various issues related to the proposed international forest fund. Chapter 5 discusses financing strategies to use existing financial sources and mechanisms more effectively, as well as some innovative concepts to raise new and additional resources. The final chapter presents some conclusions and proposals for action for the consideration by the Forum.

CHAPTER 2. DATA ON FINANCIAL FLOWS

2.1. Financing Needs for SFM

The UNCED estimates of financing needs for its programme areas included about US\$31.25 billion annually for forests in developing countries for the period 1993-2000. Work during the IPF placed this need to be closer to US\$70 billion, particularly to compensate for losses of resource stocks from deforestation. It may be useful to compare this figure with that for international trade in forest products, which already exceeds US\$100 billion. By far, the greatest use of forest products is domestic. SFM activities are highly variable, and reliable estimates might only be determined on a case-by case-basis. Recognising that the estimates are very imprecise and inherently difficult to verify, this report does not assert any particular figure. While it is widely recognised that the needs are substantial (measured in tens of billions of US dollars), debating the exact level may not necessarily lead to useful conclusions.

2.2. ODA Data

In the context of such substantial financial needs for SFM, the Forum realised a need to know the current level of investments in the forest sector in general and SFM in particular. Thus, the IFF-II directed the Secretariat to provide (i) updated information on financial flows in the forest sector and (ii) data on country experiences with various financial mechanisms to support SFM. The Secretariat and the UNDP initiated the activities outlined below to address this.

Countries that participated in the IFF-II have been requested to share information about financial flows in the forest sector and experiences with their financial mechanisms to support SFM by emails and faxes.

A study has been commissioned to analyse, synthesise, and update data existing at central database systems, such as those at the Organisation for Economic Development and Cooperation (OECD), the World Bank (WB), United Nations Food and Agriculture Organisation (FAO), UN World Food Programme (WFP), and so forth. Towards this, data was first collected from existing central database systems, FAO's periodic questionnaire surveys, and the annual and occasional reports of donor countries and organisations. Based on these reports and on personal communications with officials in these agencies, an updated estimation for individual countries and organisations, as well as for overall, ODA flows in the forest sector of developing countries was made.

Next, each donor country was requested to verify and/or provide new and accurate data. We received responses from the following seven donor countries and three developing countries:

1. Japan – Forestry ODA, domestic financial data, and financial mechanisms in the forest sector
2. Switzerland - Forestry ODA, domestic financial data, and financial mechanisms in the forest sector
3. Finland – Forestry ODA
4. The United Kingdom - Forestry ODA
5. Norway – Forestry ODA
6. Australia – Forestry ODA data
7. France – Forestry ODA data
8. Slovakia – Domestic forest sector financing data
9. Mali - Domestic forest sector financing data
10. Turkey – Domestic forest sector financing data

11. New Zealand – Forestry ODA (*Note: New Zealand data was received and inserted after this study was written, so it is not reflected*)

In addition, a number of multilateral organisations were also contacted to verify data and/or provide additional information, particularly the OECD, FAO, UNDP, WFP, European Commission (EC), the World Bank, and the regional banks.

Since only a few countries provided national public financial flows data on their domestic forest sector, it was unrealistic to make any accurate assessment of domestic resource flows.

Where no data was available for a particular country/agency and year, estimates were made based on the most relevant information available (usually FAO questionnaire data). In the absence of other data, such estimates of the aggregate figures may have a tendency to reflect the FAO data.

The estimated figures for overall ODA flows to the forest sector (Table 1) have, therefore, been based on a variety of sources and assumptions. For the 1990-96 period, 50-75% of the ODA estimates shown are derived from newly acquired data, which include figures for most of the major countries and agencies. Estimates for 1996-97 are less reliable (Madhvani 1999).

2.2.1 *General Trends of ODA Flows*

The data shows a rise in forestry ODA over the late 1980s, peaking in 1990-92 at levels in excess of \$2 billion (1996 prices). Since 1993, levels of new commitments appear to have declined slightly, to US\$1.0-1.5 billion in 1995-97.

The absolute levels of flows are hard to verify, because of the difficulties with identifying and estimating the size of forestry components of large multi-faceted projects. Given the reported trend towards funding such projects, and also towards classifying forestry activities under 'environment' and 'biodiversity' headings, figures for recent years may substantially underestimate actual commitment levels.

In aggregate, the data exhibits a series of large peaks and troughs, primarily due to the World Bank's reported commitments over the 1990-94 period, which operates in two-year financial cycles with the large numbers of new commitments being reported in the first year, followed by much less in the next. Similarly exaggerated changes in flows are seen with several other agencies, particularly when commitments for large loans are reported. This illustrates some of the problems of using commitment information.

This pattern is partly a result of greatly increased commitments on the part of the World Bank in 1990, 1992, and also 1994¹. World Bank commitments in all three years were in excess of US\$600 million, about a third of total aggregate flows for those years. They have not since attained such levels.

¹ The 1994 peak in World Bank commitments coincides with lower levels of commitments from all other donors in aggregate, and therefore total flows are lower in 1994 than in 1990-92.

Table 1: Estimated ODA Flows in the Forest Sector

1996-1997 estimates
are less reliable

Commitments, nominal US\$ (million)

		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Bilateral	non-EU bilaterals	182	275	367	269	366	461	364	333	270	447	511	307
	European Union*	247	320	394	446	514	557	566	466	491	520	469	465
	Total	429	595	761	715	881	1,017	930	799	761	967	980	772
Multilateral	Multilateral Development Banks	170	196	367	313	766	430	869	279	782	173	148	277
	UN Agencies	186	187	194	201	204	212	209	197	241	230	220	221
	Total	356	383	561	514	971	642	1,077	476	1,023	403	368	498
All Donors - estimate		784	978	1,322	1,229	1,851	1,659	2,007	1,275	1,783	1,370	1,349	1,270
	upper limit	866	1,150	1,454	1,436	2,036	1,896	2,257	1,403	2,018	1,552	1,554	1,487
	lower limit	703	805	1,190	1,022	1,666	1,422	1,757	1,148	1,549	1,188	1,143	1,054
	excluding World Bank	721	845	1,168	1,088	1,198	1,405	1,385	1,142	1,149	1,296	1,309	1,086
FAO Questionnaire data		765		1,115		1,425			1,545				

1996-1997 estimates
are less reliable

Commitments, 1996 US\$ (million)

		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Bilateral	non-EU bilaterals	249	365	470	330	432	522	401	357	283	458	511	301
	European Union*	337	424	504	548	605	630	624	500	515	531	469	456
	Total	586	789	974	878	1,037	1,152	1,025	858	798	989	980	757
Multilateral	Multilateral Development Banks	232	261	470	384	902	487	958	300	820	177	148	271
	UN Agencies	255	248	249	247	241	240	230	212	253	235	220	217
	Total	487	508	719	632	1,143	727	1,187	512	1,072	412	368	489
All Donors - estimate		1,073	1,297	1,692	1,510	2,180	1,879	2,212	1,369	1,870	1,401	1,349	1,246
	upper limit	1,184	1,526	1,862	1,764	2,398	2,147	2,488	1,506	2,116	1,587	1,554	1,458
	lower limit	962	1,069	1,523	1,256	1,962	1,610	1,937	1,232	1,624	1,215	1,143	1,033
	excluding World Bank	986	1,121	1,495	1,337	1,410	1,591	1,527	1,226	1,205	1,326	1,309	1,065
FAO Questionnaire data		1,046		1,427		1,678			1,658				

* including the Commission of the European Communities

Since the Bank data is artificially discontinuous and the flows unusually large, the table also shows flows for all agencies excluding the World Bank, to show trends for other agencies more clearly. The pattern is for new commitments being at their highest levels over the 1988-92 period (US\$1.3-1.6 billion), with levels falling slightly for 1993-96 (US\$1.1-1.3 billion, 1996 prices).

It is important to note, however, that since these are changes in the levels of new commitments, they may exaggerate changes in levels of actual disbursements. Some of the apparent fall in ODA for the later years would be offset by continued disbursements from the large commitments made in earlier periods. The observed rise and subsequent fall would therefore be levelled out to an extent when actual flows are considered.

2.2.2 Bilateral Agencies - The European Union

The figures suggest a gradual rise in ODA flows over the late 1980s, peaking at over \$600 million (1996 prices) in 1991-92, but then falling to levels of approximately \$500 million in 1993-95. Incomplete data for 1996 suggests a further fall in levels of ODA, but since there is less data available for this year (only 40% of the 1996 estimate is based on data), it is too early to say whether this is indeed the case.

2.2.3 Bilateral Agencies - Non-European Union

The data gathered for non-European Union bilateral agencies is decidedly incomplete since, of the seven agencies contacted, only Japan and Switzerland supplied data. While Japan is the largest donor in the group, without information from others, a large proportion of the data had to be estimated on the basis of the limited FAO data available. In total, such estimates comprised more than 60% of the figures assigned

to this group of donors for many of the years in question.

For the group in total, the aggregate estimates vary between \$300-500 million (1996 prices), with sharp peaks and troughs reflecting the patterns of Japanese ODA. With no information available from most of the agencies in question, it would be misleading to attempt to identify trends in these data.

2.2.4. Multilateral Development Banks

The data quality is better for the four banks considered, than for any of the other groups of agencies surveyed. The World Bank and two of the three regional banks responded with information for the study, covering the whole period in question, while the partial data for the third regional bank was obtained from an earlier FAO regional survey.

The quality of the data is of particular importance, since the data indicates that these four banks shows a large increase in their commitments in the sector, especially over the 1990-94 period. The increase is largely due to the World Bank, although commitments reported by all three regional development banks were substantially larger than those indicated by the FAO questionnaire data. The pattern of flows for the World Bank has already been indicated above.

2.2.5. The UN system

The information presented for the UN agencies is dominated by one agency, the World Food Programme, which accounts for over half the flows in question. While it was not possible to obtain full data for this agency, estimates were made and subjectively verified by WFP staff, on the basis of the partial data available. The gradual decline shown is thought to accurately depict actual changes in levels of WFP commitments.

Information was successfully obtained from the other major agencies with large flows in the sector, so the overall decline shown for UN agency flows estimated (from \$255 million in 1986 to \$235 million in 1995; 1996 prices) is likely to be broadly correct.

2.2.6. Qualifications on Interpreting the Data

There are a number of qualifications that need to be made regarding the accuracy, depth, and usefulness of data presented here. It should be recognised, in any case, that there are general problems with the usefulness of such ODA data in any sector, which suggest that attempting to gather more accurate and detailed information on ODA flows in this sector will be of limited value.

The main qualification to the estimates given is clearly the lack of complete data for many agencies. Estimates were made in a number of cases based on secondary data sources such as the FAO questionnaires. Figure 1 shows a breakdown for each year, indicating the proportion of the aggregate figure derived from such estimates as well as primary data sources. Clearly, figures are most reliable for 1990-96, when 50-75% of the estimates have been based on verified data.

Margins of error

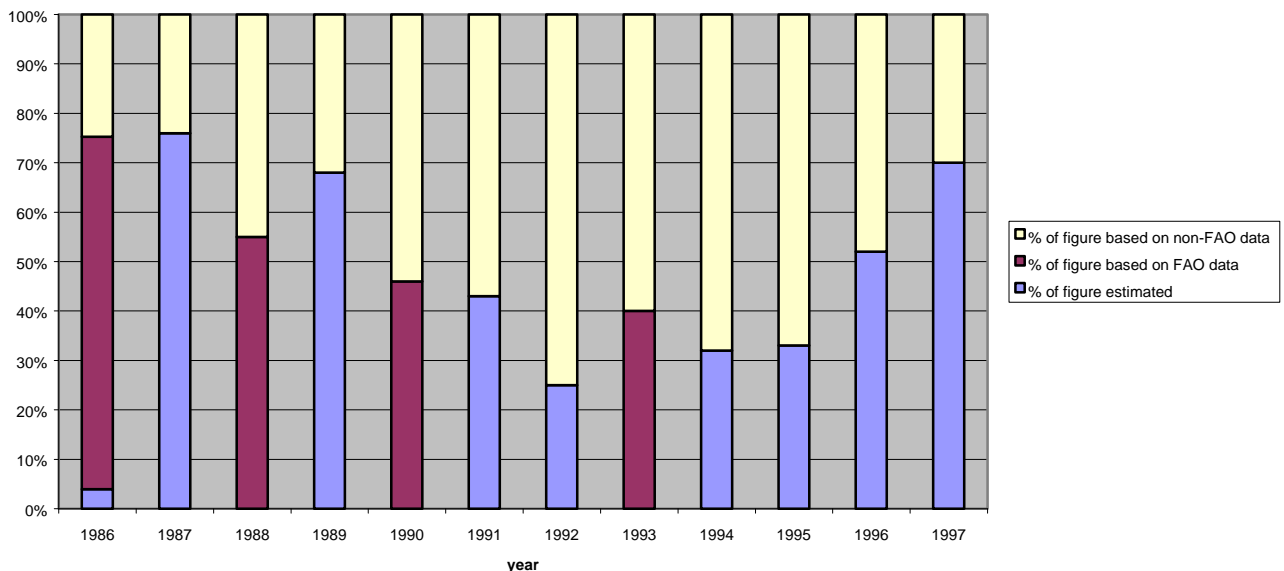
To underline the limited accuracy of estimated figures, the likely upper and lower limits of the total ODA series have been indicated. Where no figures have been made available by an agency for a given year, an estimate based on the closest available data has been made, and assigned a likely margin of error of plus or minus 20%. All other figures were assigned a lower margin of error plus or minus 10%. In aggregate, these margins of error have been used to produce the upper and lower limit series shown in Table 1.

Detailed statistical analysis has not been possible given the partial nature of the data collected, all that can be stated about the margins of error is that the actual levels of commitments are likely to lie within the bands shown. In any case, pursuing greater accuracy in levels of commitments is unlikely to be very useful, since commitments themselves are only a proxy for actual levels of flows (Madhvani 1999).

Cross-checking data from different sources

It should be possible, in theory, to check the accuracy of agency ODA figures by a process of comparison, since comparable data should be held by FAO and the OECD, as well as be provided in the second phase of data collection. In practice, however, this proved very difficult to do, since only very partial information could be gathered from each source. While the FAO data is the most complete available, for the four years in which it was gathered, there are some reservations as to its accuracy for some agencies. The OECD information is similarly incomplete, with some agencies not reporting at all, and the majority under-reporting their activities. The OECD data for bilateral donors and for multilateral development banks account to only one-third of our estimated figures for these groups (UN agencies do not report to the OECD systems).

Figure 1: Data sources used to compile ODA information



More generally, the degree of correspondence between all data obtained for an agency varies between agencies. Only a small number of agencies have reported closely similar figures to FAO, the OECD, and to this study. It is important to note that close correspondence does not necessarily imply that the numbers are an accurate measure of actual flows in the forest sector.

Broad Forestry Programme versus SFM

It was not possible for the study to gather the ODA flows specific to sustainable forest management. It would be quite difficult to do this because of a combination of practical and conceptual difficulties. A practical problem is that most donor agencies tend to use their own schema for classifying activities, which are not easy to reconcile across agencies.

The conceptual problem is that 'sustainable forest management' is a very broad term, without clear boundaries, and a term that may be interpreted in a variety of ways by different agencies. It also has strongly evaluative connotations and very broad scope, the tendency is to classify most all activities as 'sustainable forestry' (agencies would clearly be reluctant to identify any activities as '*unsustainable*'). Multi-faceted cross-sectoral projects ('integrated' projects) that include forestry components pose additional difficulty in measuring the levels of the forest sector ODA.

Most agencies tend to estimate the proportion of money going into forestry from each project only very roughly, without attempting too much detailed analysis. This seems a sensible trade-off between the cost of gathering the data, and the usefulness of enhanced accuracy.

It has not been possible to quantify the relative importance of forestry components, which would require a far greater depth of data than obtained in the course of this study. Such quantification would however be a useful element of further studies at country or at donor level.

Commitment/Disbursement information

Agencies were asked to supply commitment *and* disbursement information where possible, to give a more accurate picture of *actual* flows over time. Commitments are almost always higher than levels of disbursements for a variety of reasons. In addition, commitment data can present a distorted picture of the flow of aid over time, especially for large projects that are active for relatively long periods (which we would expect to be characteristics of many forestry-sector projects).

However, disbursement information is more difficult to obtain for a number of practical and political reasons, and the majority of agencies only provided commitment information in response to our request. The data presented here is therefore the commitment information we have obtained².

2.2.7. Recommendations for Improving Information

There is clearly a balance that needs to be struck between the value of increasing the accuracy and depth of the forest sector ODA data and the costs of those improvements. A number of options can be considered for improving the information quality. These consist of continued surveys on the FAO model, improvements to the OECD systems, the establishment of a new system to monitor forestry ODA flows on an ongoing basis on the OECD model, and finally, a small number of more focussed and detailed case studies at national level. Each approach has advantages and shortcomings of its own.

² The only exception to this is the UK, which provided only disbursement figures.

FAO's periodic surveys of forestry ODA flows provide a well-known series of data and a general overview of ODA trends. This data, however, depends on national agencies providing correct and comparable data. The FAO data can only be as good as the information which agencies themselves provided to FAO. No overall biases can be discerned from this data suggesting, for instance, that the FAO data generally overestimates or underestimates flows. Problems are compounded by the fact that agencies work to different financial years, and commitment information can be difficult to allocate to a particular period.

Despite the apparent inaccuracies in the original data, continuing a series of FAO-style intermittent surveys may be the most sensible trade-off between the large costs of gathering more accurate and detailed data, and the limited benefits of improving that quality.

The OECD databases obviously will remain the central database for all ODA data, including the forest sector ODA. However the data available on forestry activities is extremely incomplete - in aggregate standing at only a third of the figures we have estimated as total flows in the sector. Some donors are not reporting anything at all, while the majority of donors are substantially under-reporting their forestry activities by a large margin. Reporting should improve over time. However there are a number of key structural features of the OECD systems, that may limit their future usefulness to the forestry sector. Amongst these is an inability to handle components of multi-faceted projects, and lack of provision for disbursement data. Since forestry is such a small part of total ODA, it may be unrealistic to expect rapid changes to these systems in response to needs in the forest sector, so they are likely to remain limited for the immediate future.

Since the OECD systems are not meeting the needs of the forest sector, one way of improving financial flows information may be to create a new system, focussed specifically on the forest sector, to collect information on forestry flows. The more limited focus would also enable information on forest flows to be targeted. Maintaining such a system solely monitoring forestry financial flows would most likely be difficult to justify, because of the high costs. Additional benefits need to outweigh costs for participating agencies themselves for such a system to be a workable long-term option.

One possible model for improving the cost-benefit trade-off is currently being explored by the ODI TROPICS system, for the European Commission. This is designed to improve general information flows on the forest sector ODA for a wide range of internal and external audiences. As such, it is a useful working tool for the officials who are responsible for providing information to it, rather than maintained for purely external purposes. It is therefore more likely to be checked and corrected should errors occur. In addition, the costs of collecting the information are shared across several linked benefits, rather than solely incurred to obtain aggregate financial data. Expansion of this system to include European Member State forestry portfolios is currently being discussed.

The information management systems of agencies responsible for ODA themselves are also improving, which may improve the quality and availability of forestry flow information. An interesting approach is that of the World Bank, where a number of sector-specific databases, set up over time by different departments in response to their own data needs (including one on forestry activities), are now being linked together. This should allow different sector-specific perspectives on multi-faceted projects in particular to be easily compared.

Considering numerous practical and theoretical issues of data collection, it seems desirable to have a few in-depth studies at country-level. Such an exercise might reveal various aspects of the forest sector ODA flows data (such as the accuracy of data) for a few representative countries and agencies. This could seek to address a number of key issues pertaining to the financial flow information:

- ❖ estimate the extent to which forestry flows are not being captured by current methods, with particular emphasis on assessing the importance of multi-faceted projects;
- ❖ how well donor commitment information reflects the actual trends over time of ODA flows;
- ❖ whether different records of ODA flows from different perspectives (donor agencies financial and implementation departments and corresponding departments in recipient governments) match up and, if not, the reasons for and the scale of any such discrepancies;
- ❖ what the trends have been for different types of activity, especially for sustainable forest management, for the balance between grants and loans, and differences between the portfolios of different donors.

In addition to such issues, country-level studies could also seek to assess private and domestic public flows, flows channelled through the NGO sector, and other aspects of relevance to IFF Programme Element II.a.

It would be necessary to carefully choose a range of countries to study in this way, so as not to bias the results, since there appear to be quite different patterns of funding in different countries. With a carefully chosen range of country studies, it may be possible to identify general relationships between aid flows, forest cover, poverty, external debt, and other key variables.

2.3. Private sector flows data

Concerning private sector capital flows to forestry, there are no comprehensive figures for global flows or for flows to developing countries. It is known that the overall international private investment in developing countries has increased from less than US\$50 billion in 1990, to about US\$250 billion in 1997, and has dropped since then. While it is not unreasonable to assume that forest investment has followed a similar pattern, no concrete data or information is available. It is also not known how much of the private capital is invested in, what an authoritative body would describe as, SFM. Certainly, there seem to be abundant examples of investment in unsustainable practices.

The IFF did not request information on financing flows through private non-profit organisations. Some recent publications indicate that these flows are substantial, which would also indicate an under-reporting of overall flows.

Clearly, there is a need to gather information more systematically. The challenge lies in gathering more complete and reliable data to guide the international policy dialogue, as well as to assess the situation realistically.

CHAPTER 3. THE ECONOMICS OF FORESTRY

3.1. Special Features of Forests

As mentioned earlier, forests produce a range of products and services (Box 1) critical to social and ecological systems. Therefore, forestry has multiple objectives.

Forestry has a number of unique characteristics, which makes financing forest operations more complex than in some other sectors. While forests share many characteristics with other biological resources, there are many aspects that make them unique. Forests are, like other biological resources, both an output and a capital good. Trees, when harvested, become a commodity, but, left standing, they are a capital good, providing for increased growth the following year. However, unlike most other resources, the time period between initial investment (planting) and recovery of that investment (harvesting) is especially long. Long rotation periods (from six to more than 100 years) are common in forestry, but not in many other industries. This represents a source of risk and uncertainty, and an uneven distribution of benefits and costs over time, as initial investment outlays can be large (typically in afforestation and reforestation), annual management cost relatively small, and most of the revenue (if not all) occurs at the end of the rotation period. In addition, in many developing countries, various user-rights to the forest resources (customary and formal) may be poorly defined, or may be in conflict with each other, making investment a complicated and risky exercise (McGaughey and Gregersen 1988, Zinkhan et al. 1992, Tietenberg 1992).

Box 1 **Examples of the multiple products and services of typical conservation and production forests**

<i>Conservation forests</i>	<i>Production forests</i>
<ul style="list-style-type: none">• Biodiversity conservation• Recreation/amenity• Local income from tourism• CO₂ storage• Ground water retention• Surface water buffering• Non-timber products (if allowed)• Existence value	<ul style="list-style-type: none">• Wood• Recreation/amenity*• Biodiversity conservation*• CO₂ sequestration (& storage*)• Ground water retention• Surface water buffering• Non-timber products*• Income from employment• Existence value*

* indicates secondary products

Finally, forestry is usually subject to a large variety of externalities, which are associated with tree growth and other forestry operations. Many economic and environmental goods and services from growing forests accrue to the society in large, but few may go directly to the actual forest owners or investors. These externalities are often the root cause of deforestation and unsustainable forestry in most developing countries (McGaughey and Gregersen 1988, Tietenberg 1992).

3.1.1. Externalities

Externalities are effects of an action, project, or policy that are outside the decision context or concern of those taking the action (Gregersen and Lundgren 1990). Externalities are market imperfections that occur whenever such impacts are not compensated through markets. For example, a logging enterprise that generates some beneficial side effect is not paid for doing so; however, neither is it charged for the damage it causes to the environment (Pearse 1990). Externality could be both negative and positive. An externality is called an 'external dis-economy' when the effect is negative, (i.e., the affected party is damaged), and an 'external economy' when the effect is positive (i.e., the affected party is benefited) (Tietenberg 1992).

Many forest activities involve external economies or dis-economies. Forests are capable of producing a variety of goods and services simultaneously. Some products and services, such as livestock forage, watershed protection, aesthetic, recreational, biodiversity conservation, and climate regulation are most often not priced or traded in the marketplace. Similarly, forest operations that result in soil erosion, water quality deterioration, or biodiversity habitat loss, this impacting social welfare, will continue if the forest owners or managers are not required to take into account the costs of the damage occurring to others due to their actions. Moreover, the exploitation of one forest product or service often affects the availability of others. For example, timber harvesting may enhance the habitat for some wildlife species, or it might diminish recreational opportunities, cause pollution, or may impair the aesthetic quality of the landscape. When benefits are not marketed, regardless of the reason, the problem of quantifying their value arises. The fact that they are not priced does not mean that they are without value, of course, only that there are no market indicators of their value (Pearse 1990).

3.2. Financing for SFM

In the prevailing market and policy conditions, broad-based multiple-use sustainable forestry practices are financially unfeasible, from a private investor's perspective. Analyses of the logging in tropical forests indicates that the traditional non-sustainable logging of one or few highly valuable species is two to five times more profitable than logging in a way that would ensure sustained-yield supply of the same species (Rice et al. 1997, Bowles et al. 1998). However, if a much broader definition of SFM is used in the analysis, the picture is different. The mechanics of the market do not readily lend themselves towards turning multiple-use forestry into a sustainable and profitable venture.

Two main factors affecting the economics of SFM are:

- market failures; and
- policy failures.

3.2.1. Market failure

Market failure occurs due to absent, distorted, or malfunctioning markets in which forest goods and services are undervalued or not valued at all. Major sources of market failure include (i) externalities; (ii) missing markets for environmental services and other open-access public goods; and (iii) monopsonic (near-monopoly) competition.

The major sources of externalities (and market failure) in the forest sector are i) the inability to define and enforce property rights and ii) the fact that many of its products and services are public goods (Tietenberg 1992).

The property right refers to a bundle of entitlements defining the owner's rights, privileges, and the limitations of the resources. An owner of a resource with a well-defined property right has a powerful incentive to use that resource efficiently, because a decline in the value of that resource represents a personal loss. The problems with market allocation occur when the property rights to the forest resources lack one or more of its four characteristics: universality, exclusivity, transferability, and enforceability. Such problems are frequent, especially in common property resources like open-access public forests (or air, water, etc.).

Public goods are those that exhibit consumption indivisibility and are fully accessible to all (Tietenberg 1992). The classic examples of true public goods are national defence and lighthouses; examples from the forest sector include the amenity of a landscape, biodiversity, and general environmental quality. Public goods produced by forests cannot be parcelled up and sold to some and not to others. These public goods can be consumed by one without diminishing the supply available to others (Pearse 1990).

The private sector is often not the most effective agent for management of public goods, such as biological diversity or other environmental benefits of forests. For example, if in response to diminishing biodiversity in the tropical forests of a country, it is decided to set up a voluntary contribution fund to provide some resources to preserve endangered species, it would be difficult to generate sufficient revenues to pay for an efficient level of biodiversity. Inefficiency results because each person is able to become a 'free rider' on the other's contribution. Due to the consumption indivisibility and non-exclusivity properties of a public good, all consumers receive the benefits of any biological diversity purchased by any other consumers. When this happens, it tends to diminish incentives to contribute, and the contributions are unlikely to be sufficient to finance an efficient amount of the public good. Thus, it would lead to an insufficient supply of biodiversity.

3.2.2. *Policy failure*

Policy failure occurs both when the state fails to take action to correct market failures and when policies are implemented that further distort prices and create 'disincentives' for SFM. These can either be sectoral policies or policies from other sectors, including macro-economic policies. Impacts of policies external to the forest sector are often unpredictable and frequently 'perverse'.

Sometimes government actions encourage deforestation and inhibit investments in SFM, rather than correcting the failure of markets. For example, national economic development policies (including pricing, policies, tax incentives, and other subsidies) encouraging private investments in other sectors—such as agriculture, mining, industry, transportation, and energy—adversely impact forest resources by distorting the true costs within the investment calculus. In developing countries, where most of the forests are publicly owned, inadequate land policy allows forests to be treated as an 'open access' resource. Public revenues through forest royalties, license fees, and taxes are typically much less than the true forest rent. These problems, accompanied by weak forest institutions sometimes susceptible to corruption and political pressure, result in decapitalisation of the forest resources, and frequently discourage meaningful investments in sustainable forest management (World Bank 1992, Sharma 1992).

Policy and market failures have resulted in a situation where SFM is profitable for neither the resource owner nor the resource manager. Deforestation is occurring precisely because it has been profitable (Douglas and Magrath 1996). The private benefits and costs are different from the benefits and costs accrued to society at local, national, or global levels. The use of high discount rates in private investment decisions, in general, discourages long-term investments (such as SFM) and encourages intensive harvesting for immediate consumption of the forest resource (Sharma 1992, Tietenberg 1992).

3.2.3. *Other Investment Concerns*

Private investors compare investment opportunities in different sectors and projects. Investors like returns and dislike risk. A portfolio that promises the highest possible expected return for a given level of risk, or the lowest possible risk for a given level of expected return, is said to be efficient and thus attractive to the rational investor. Private capital flows, especially foreign investments in sustainable forestry, also depend on real and perceived risks ('sovereign' or 'political' risk) in a particular country.

In principle, a government's decisions on increasing financing for the forest sector, or any other sector, will be guided by its goal of social efficiency and equity. Therefore, the relative costs and benefits and distributional effects of such investment programmes will influence its programme prioritisation and budget allocation to the forest sector. In reality, such decisions result from trade-offs between efficiency and equity, and are likely to be influenced by political considerations.

The following overarching principles, therefore, govern approaches to meeting financial needs.

- ◇ Meeting financial needs is by nature competitive.
- ◇ The private sector evaluates alternative investments.
- ◇ The public sector determines priorities for limited funding.
- ◇ Public and private financing are attracted by, and levels of investment are likely to increase, when funds are used effectively and when the objectives of investment are achieved.

The above considerations have a profound influence on meeting financial needs for sustainable forest management.

CHAPTER 4. INTERNATIONAL FOREST FUND

4.1. Introduction

An *International Forest Fund*, aimed at creating a new mechanism to generate new and additional resources, was a hotly debated mandate at IFFII. The main purpose of the proposed fund is to ensure a flow of minimum sustained financing for SFM activities in developing countries. Current practice in financial cooperation with developing countries (ODA) represents a recognition of the North-South gaps in financial capacity, and can be considered as a sort of ad hoc transfer payment from the developed countries to developing countries. However, such ODA flow is uneven, unsystematic, and unreliable. Furthermore, the levels of ODA flow does not seem likely to increase, despite the commitments made at UNCED.

The underlying rationale to establish a new fund is broadly based on the concept of 'global concerns' or problems of 'global relevance'. The Tropical forests in developing countries perform many environmental functions that contribute to the global community in the form of 'global public goods.'

There is a growing awareness that 'global externalities' (specifically including emissions of greenhouse gases and impacts on biodiversity) must be taken into account. Such quantification of environmental externalities should take into account both negative externalities (such as from deforestation and forest degradation) and positive externalities (such as carbon sequestration, hydrological system regulation, and biodiversity) of forests (Sand 1996). The ongoing discussion about innovative financing mechanisms to involve the private sector also revolves around this concept. However, many of the external benefits of forests are pure 'public goods', and the private sector would not be the appropriate or efficient choice to manage, conserve, nor produce these products and services. Therefore, a strong role for the public sector remains necessary. The public sector can play such a role at both national and international levels.

Benefits, such as those from climate change mitigation or biodiversity, are largely external to the nation where the forest stands, while the costs of preventing deforestation are largely internal. The loss of biodiversity precipitated by deforestation is perhaps most deeply felt by the industrialised world, not the countries that control the forests. This is so because, currently, the industrialised countries have the technologies to exploit the most of the gene pool this biodiversity represents. Similarly, most of the damage from global warming would be felt outside the borders of the country being deforested. Yet stopping deforestation could mean an abrupt loss of the jobs and income derived from harvesting timber or alternative uses of land made available by clearing forests. It is, therefore, not surprising to find the most vociferous opposition to the loss of biodiversity mounted in the industrialised countries, not in the tropical forest nations. The concept of global externalities offers not only an explanation for market failure, but also for why the governments involved cannot be expected to solve the problem by themselves.

Deforestation and unsustainable forestry involve external costs that transcend national borders. Because of this, it is unrealistic to expect national policy alone to solve the problem. Some kind of international action seems essential. Substantial strides towards achieving efficiency in sustainable forest resource management can be achieved simply by recognising and correcting 'perverse' incentives. But this will not, by itself, provide adequate protection for the global interests in tropical forests.

Some examples--such as debt-for-nature swaps, extractive reserves, and conservation easements--recognise the fact that resolving the global externality of deforestation and unsustainable forestry requires a rather different approach than resolving other aspects of deforestation problems. In general, this

approach involves financial transfer from the industrialised nations to the developing countries--transfers that are constructed as compensations, and thus incorporate global interests into decisions about tropical countries' forests (Tietenberg 1992).

Panayotou and Ashton (1992:226-227) give a coherent summary of this issue and propose an alternative to deal with it:

"... [W]hile many of the environmental services of tropical forests, such as soil and water conservation, are critical for the sustainable development of tropical countries themselves and should be financed accordingly, other services of tropical forests are truly international public goods. Preservation of wilderness, biological diversity, and global ecological balance all generate benefits beyond the borders of the countries that produce these services. In fact, the producers of these services--primarily the tropical timber nations--would benefit less than others because these services are basically 'luxury' goods (i.e., in high demand in rich countries and low demand in poor countries). The highest benefits would accrue to the developed countries of the European Community, the United States,, and Japan, the major importers of tropical timber. These countries should be prepared to help fund the provision of these services through the creation of national parks and biological reserves in the producer nations. Preservation of unique genetic resources and rare ecosystems would also help reduce the opposition to timber trade on environmental grounds and ensure its long-term economic and social viability. In this context, the feasibility of a Tropical Forest Conservation Bank with major contributions from timber-producing and consuming nations should be explored. Such a bank could compensate tropical countries for forgoing forest conversion (and timber production) to preserve their forests as biological reserves and producers of global environmental services."

The proposed international forest fund could be a feasible approach. Such a fund could internalise, at least partially, some of the externalities and reward (pay) forest owners and countries for the 'public good' environmental services from their forests. Such a payment mechanism, the proponents of the fund assert, will help finance SFM and produce socially beneficial public goods and services across boundaries.

Despite a sound conceptual foundation, the establishment of an international forest fund remains a political question, subject to intergovernmental deliberations and requiring a convergence of numerous national and regional political agendas. In this regard, the following facts and issues should be considered.

- ◆ Overall, ODA has not increased in recent years, and it has become clear that increases are generally influenced by public opinion and the political priorities of the developed countries. The question may be posed whether an international forest fund, if solely dependent on ODA, would necessarily increase the overall flows. In absence of any overall increase, it would seem that any new fund would tend to decrease allocations to other programmes unless sources other than ODA support such a 'fund'.
- ◆ Developing countries have found it difficult and cumbersome to manage ODA, which flows through approximately thirty different channels. However, this is not a situation that is confined to forest programmes only. It could also be argued that each new channel or organisation increases the flow.
- ◆ While a central international forest fund could provide more coherent governance and organisation for available funding and achieve greater impact, the current decentralised and diverse governance arrangements may actually be more effective mechanisms for ODA mobilisation.
- ◆ If the major source of revenues for a forest fund is linked with payment (compensation) for the positive forest externalities and/or negative externalities, then the fund could be expected to be self-sufficient.
- ◆ A careful consideration of the different implications of establishing a forest fund and disbursing its

resources should be made. For example, an issue of 'moral hazard' could occur if a country would be prompted to excessively harvest its natural forests in the hope of receiving more financial resources to develop a new forest.

4.2. An Overview of Existing Funds

There are many issues concerning the governance and management of a fund that require further study and careful consideration. Funding mechanisms adopted by different UN Conventions could offer some guidance. A partial review of some existing funds is presented in the following paragraphs.

4.2.1. The World Heritage Fund

The World Heritage Fund (WHF) of the UNESCO trust fund was established by the World Heritage Convention in 1972. In force since 1976, with a current membership of 142 countries, it is the most widely accepted conservation treaty today. The Fund receives its income essentially from compulsory contributions from state parties – amounting to 1 percent of their UNESCO dues – and voluntary contributions. Other sources of income include funds-in-trust donated by countries for specific purposes and profits derived from sales of World Heritage products (WHC Webster 1999, Sand 1996). The total amount received each year is just under US\$3 million, a modest sum considering the magnitude of the task. The WHF may provide financial assistance in the form of studies on the i) protection, conservation, presentation, and rehabilitation of the cultural and natural heritage; ii) provision of experts; iii) training of national staff; iv) supply of equipment; v) low-interest or interest-free loans; and vi) the granting, in exceptional cases, of non-repayable subsidies. The allocation of funds, upon request by the member country concerned, is determined (by a two-thirds majority) in the twenty-one member World Heritage Committee, elected on a rotation basis at the biennial UNESCO General Conferences, with expert advice from the IUCN.

The basic idea of the World Heritage Fund -- to compensate heritage 'host' countries for special conservation efforts they make on behalf of the world community -- went well beyond the original 'charitable' motivation of international environmental protection, and recognised an entitlement of the recipients in return for the global benefits their local action generates. By linking its revenues to the regular UNESCO scale, the WHF also ensured a certain degree of predictability and continuity of funding. Yet the level of assessed contributions is but a token of the international community's concern, and bears no relation to the actual needs of protection (ibid.).

4.2.2. The Global Environment Facility

The Global Environment Facility (GEF) is probably the most important institutional innovation of the UNCED process "to achieve agreed global environmental benefits." The GEF offers new economic leverage for making international environmental law effective (Sand 1996).

Key parameters of the GEF are:

- that the GEF should support programmes and activities for which benefits would accrue to the world at large, while the country undertaking the measures would bear the cost, and which would not otherwise be supported by existing development assistance or environment programmes; and
- that because of the nature of the activities considered, funding for the GEF should, to the

greatest extent possible, be additional to existing aid flows, and on grant or highly concessional terms.

The Global Environment Facility was established in 1991 and restructured in 1994. It funds three broad types of activities in its four focal areas: biodiversity, climate change, international waters, and ozone layer depletion. The GEF serves as the financial mechanism for the UN Convention on Biological Diversity and the UN Framework Convention on Climate Change, and is accountable to the Parties to the Conventions. The United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), and the World Bank are its three implementing agencies.

Thirty-four nations, including thirteen recipient countries, pledged US\$2 billion to the restructured GEF's core-fund (GEF-I) in 1994. Another US\$2.75 billion was pledged for replenishment in 1998, for the period of 1998-2002, for GEF-II.

Some GEF projects are aimed to protect globally significant biodiversity in forest ecosystems. The present GEF strategy to achieve this objective focuses mainly on the creation and strengthening of protected areas.

The incremental cost concept, which is central in assessing project eligibility, depends on dis-aggregating the costs of achieving global environmental objectives, over and above the costs of national sustainable development.

Initially, GEF was conceived as a financing mechanism primarily for public sector projects, without much emphasis on the private sector. This, however, is moving towards encouraging more private sector participation.

4.2.3. *The Environmental Conventions Trust Funds*

A special Environment Fund was established to help the United Nations Environment Programme cover its project and administrative costs in 1972, by the UN General Assembly, "to provide for additional financing for environmental programme". The annual budget figures for the core Environment Fund, as approved by the UNEP Governing Council, have risen from US\$30 million in earlier years, to about US\$60 million in recent years (Sand 1996).

Under general procedures adopted in 1973, "trust funds for specified purposes" may be established within the framework of this Fund, and in accordance with the Financial Rules of the United Nations. The first of these trust funds for extra-budgetary contributions, approved by the UNEP Governing Council in 1978, was for an initial US\$5.8 million, to implement the Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution. It was followed in 1979, by trust funds to implement the Convention for the Protection of the Mediterranean Sea against Pollution (the Barcelona Convention), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and in subsequent years, by trust funds for other UNEP-sponsored global or regional Conventions and Protocols (ibid.).

Each of these trust funds was expected to cover the international costs of administering and implementing a specific treaty regime. All these funds were established under UN Financial Rules and Regulations relating to trust funds and special accounts. The sums involved are comparatively modest. The two largest of the UNEP convention funds, the CITES Trust Fund and the Mediterranean Trust Fund, have an annual income of about US\$4 and US\$7 million respectively. These are small when compared with other

financial mechanisms operating in this field--such as the Mediterranean Environmental Technical Assistance Program (METAP), co-sponsored by the World Bank, UNDP, the European Investment Bank and the EC Commission. Nonetheless, the sum total of additional financial resources channelled through UNEP convention trust funds is now equivalent to about one-third of the core Environment Fund contributions.

These trust funds are considered successful in making the conventions financially self-supporting, weaning them from UNEP fund grants, and, in the process, empowering the treaties' member states (ibid.).

4.2.4. *The Montreal Protocol Multilateral Fund*

The Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer agreed in 1990, to set up an interim financial mechanism, including an Interim Multilateral Fund (US\$240 million for 1991-1993). This fund finances the incremental costs incurred by developing countries for their compliance with the Protocol, mainly the phase-out of ozone-depleting substances. The World Bank, the UNDP, and UNEP are involved in implementing the fund. Subsequent meetings of the Parties to the Protocol in Copenhagen in 1992, and Bangkok in 1993, converted the Montreal Fund from interim to permanent, and raised the overall funding level to US\$510 million for the next three-year period (1994-1996) (Sand 1996).

4.2.5. *Bali Partnership Fund*

The Bali Partnership Fund (BPF) is established under Article 18 of the International Tropical Timber Agreement (ITTA), established in 1994. The resources of the fund will be used "to enhance the capacity of members to implement a strategy for achieving exports of timber and timber products from sustainably managed sources by the year 2000" (ITTO 1998 and Costa et al. 1999), in short to achieve the ITTO Year 2000 Objective.

There are three sets of criteria used to guide the use of BDF funding.

1. Article 21(4) of the ITTA

This Article addresses:

- the special needs of members whose forestry sectors' contribution to their economies is adversely affected by the implementation of the strategy for achieving the ITTO Year 2000 Objective; and
- the needs of members with significant forest areas, whom are establishing conservation programmes in timber-producing forests.

2. Annex B of ITTC Decision 8(XX)

This Annex recommends countries work to:

- adopt forest policy and enforce legislation;
- establish and secure a Permanent Forest Estate (PFE);
- reduce damage done by timber harvesting to the physical and social environments and to the forest ecosystem;
- train the work force to accelerate the use of reduced impact logging;

- limit harvest levels to the sustained-yield capacity;
- raise political and consumer awareness of the fact that timber harvesting can be consistent with the sustainability of the tropical forest; and
- concentrate research on the analysis and application of existing data and knowledge, to ascertain what is or can be made relevant to the operational knowledge of forest ecosystem behaviour, and put that information onto preliminary management prescriptions.

3. Rule 19, paragraph 2 of the Financial Rules

This Rule recognises:

- the importance of assisting member countries to implement the International Tropical Timber Organisation (ITTO) Criteria and Indicators for sustainable management of tropical forests.

There is a provision for the Council to annually review the criteria. However, guidelines have not yet been developed to apply the above criteria.

The revenue sources of the fund include i) voluntary contributions from donor members and other public and private sources, ii) a portion of the interest earned from the ITTO Special Account, and iii) the interest earned from the BPF itself. Japan has committed by far the most to the BDF- US\$11.5 million. Two countries have declared their intention to initially contribute US\$100,000 each. The Fund is not yet operational, but is expected to be functioning in 1999.

4.3. Revenue Sources

Two things are noted from the above review of existing funds. First, a legally binding international instrument (e.g., Convention) precedes the establishment of a fund. Second, the sources of revenues and criteria for funding should be clearly defined for the effective operation of a fund. Even then, however, the resources available may not match the financial requirements.

Financing of international funds remains a critical issue. Most funds, in general, are based on an 'internalising the externalities' rationale, so that those whose actions contribute to global environmental changes compensate those who suffer particular harm (either from global change or from the measures needed to protect or adapt to global change). This, in the form of trust funds, is also to provide some form of compensation to future generations.

Examples of funds attempting to internalise at least a part of 'externalities' are numerous, especially at the national level. They are financed by the revenues generated from the production and trade of the natural resources involved. Trust funds based on some kind of levy (severance tax, user fee, etc.) are responses to concerns that the natural resources (forests, oil, minerals, etc.) will eventually become depleted, or their exploitation will cause unacceptable environmental degradation. The money may be earmarked for restoration of degraded lands or compensation to resource owners for sustainable management (e.g., for the conservation of forests in watershed to maintain water supply downstream). The question arises over whether a national forest fund can be extended to establish an international forest fund that addresses the global externalities of forests on a similar basis. It could be partly based on a small share of the national forest fund network and partly from a global financial mechanism of compensation or taxation. It is, however, obvious that this requires resolving many technical, legal, and political issues and uncertainties.

CHAPTER 5. FINANCING STRATEGY FOR SUSTAINABLE FOREST MANAGEMENT

5.1. Introduction

The problem of financing SFM is not so much a matter of flows or instruments per se. It is more a matter of:

- (i) how current flows could be directed from unsustainable to sustainable forestry, and
- (ii) how the necessary preconditions for investment could be met, reflecting the different time preferences of investors and society for various forest-based benefits.

The ultimate goal of a financing strategy is to increase the available resources for achieving SFM worldwide. This includes revenue generation from the sector itself, as well as private and public investment from domestic and international sources. Of particular importance is the role of public sector financing in addressing structural constraints and in leveraging private investment.

To reach the above goal, three key questions need to be answered (cf. UN 1997).

1. How can the level of financing to achieve the transition from unsustainable to sustainable practices be raised?
2. How can the patterns of financial flows toward SFM be changed?
3. How can the efficiency and effectiveness of available finance be improved, thereby reducing the need for additional financing for SFM?

The IPF recognised that utilising available mechanisms and resources more effectively is just as important as creating new and additional resources. The efforts to improve efficiency and effectiveness apply to all financial sources and mechanisms. Thus, in the changing paradigm of development financing, the emphasis is increasingly moving towards:

- (i) using the existing sources and mechanisms more efficiently; and
- (ii) tapping emerging new sources and instruments, particularly regarding the leverage of environmental services and private capital flows.

This shift is linked with new global realities such as: the globalisation of markets, decentralisation of developmental responsibilities, privatisation of natural resource management and utilisation, a new market-state relationship, globalisation of environmental and developmental problems and related inequity, as well as the fuller participation of civil society in policy and implementation (Pearce & Steele 1997).

5.2. The Effective Use of Existing Financial Mechanisms and Resources

Put simply, the more effective use of 'existing' mechanisms more effectively requires two things: increasing resource mobilisation through existing mechanisms, and the more effective use of those resources. The assessment of effectiveness should be based on the progress made to achieve SFM at the national level, which presumes that SFM has been adopted by the government as a key policy goal. The more effective use of all financial resources also depends strongly on conditions that extend far beyond the forest sector. These include, for example, a well-trained and equitably remunerated civil service, social stability and security, and an intolerance for corruption. Countries must practice a commitment to

these goals in order to effectively use resources for SFM.

Panayotou (1997) identifies three ways for governments to mobilise domestic resources for sustainable development, which can apply equally well to sustainable forest management. First, governments can increase their own savings by reducing subsidies and government consumption and expenditures, and then directing savings towards sustainable forest management. Second, they can mobilise additional resources through tax reforms and improvement in tax collection, as well as through revenues from user fees and charges for forest goods and services. Third, they can influence the level of savings and investment gains by the private sector through monetary, fiscal, and debt-management policies, and then redirect the dividend to meet sustainable development needs through changes in ownership structure, price reform, and capital-market development. Therefore, the following avenues of domestic resource mobilisation can be distinguished:

- subsidy removal (including resolving issues of the under-pricing and under-capturing of rent);
- tax reform (broaden the tax base, simplify the tax structure, and improve tax administration);
- creation of markets and others economic instruments (environmental taxes, resource taxes, pollution charges, environment bonds, deposit-refund or performance bonds, tradable pollution permits, user fees, etc.) for the environmental services of forests; and
- mobilising private sector resources by removing barriers to entry, initiating public-private partnerships, co-financing, joint ventures, and so forth.

In addition, international private and public sources need to be more efficiently mobilised.

It is interesting to note that global subsidies are estimated to be around US\$700 billion annually, based on only four sectors (energy, transport, water, and agriculture) (de Moor 1997)³. Subsidies are usually inefficient means for achieving their stated ends. They tend to distort economic incentives, and are often regressive, work against the poor, promote depletion of natural resources (e.g., water, forests, and fisheries) and encourage the overuse of polluting inputs (e.g., fossil fuels, fertilisers, etc.). Once created, they are politically difficult to remove.

The price of forest products from government-owned forests have tended to be lower than the market could pay in many countries. Consequently, fiscal revenue has been and continues to be lost. Many of the services forests provide are often not priced. Increasing what the market can pay for forest products and services would have two major benefits: it can increase public revenue, and it can induce a less wasteful use of forest resources. Of course, the better valuation of forest goods and services is a complex task.

In terms of the mobilisation of domestic resources, strategies should address both increasing public resources to forests as well as creating a more favourable investment climate for private sources-domestic as well as international. In the case of domestic public sources, the major goals are to increase revenues from forest products and services, and to ensure the necessary reinvestment for SFM occurs.

The recent trends in commoditisation of forest benefits to forest owners and managers, by creating the markets, offer new possibilities to capture at least part of the value of the environmental and social benefits of forests previously not recognised by the market. Forest can be managed for not only timber and non-timber forest products, but also for hydrological services, carbon sequestration, ecotourism, and biodiversity benefits. The concepts of forest management must expand to include these values (Costa et al. 1999).

³ Another estimate (See-Yan 1997) puts it in the range ~~from of US\$~~0.5 to 1.0 trillion ~~USD~~ per year, most of which occurs in OECD countries (although ~~the~~ ratio of subsidies to GNP is highest in non-OECD countries).

There are two concerns that must be addressed if the creation of new markets for environmental services is to most effectively benefit SFM.

(1) *Unequal or preferential treatment.* Similar forests may not be treated in the same way due to site-specific factors, particularly location and possible beneficiaries. For example, forests that are located in watersheds supplying fresh water for big cities will be valued differently from forests in watersheds around agricultural zones.

(2) *Negative Consequences.* Each instrument inevitably emphasises capturing a particular aspect or aspects of forest benefits over others. If investment decisions are too narrowly focused on short-term benefits, and the wider goals of sustainability are not kept in sight, the results could actually impede SFM. This problem is particularly associated with forest benefits at the global level. For example, the commoditisation of the carbon sequestration potential of forests under inadequate policies could lead to the clearing of natural forests into fast-growing plantations, creating a negative impact on SFM.

In many countries, there seems a definite shift towards greater participation by the private sector in forestry. Not only are countries encouraging increased private ownership, but they are also attempting to attract more private interests to forest management. A greater reliance on market-based approaches and promotion of public-private partnerships has great potential to guide forest operators towards more efficient and sustainable management and utilisation.

Public-private partnerships become realistic when the necessary preconditions have been put in place. Insecure property rights over forest resources and their products and services is one key structural barrier to be removed before private sector investment can be anticipated.

Governments can influence the level of private sector investment in SFM through monetary, fiscal, and debt-management policies. Government efforts need to specifically address inherent barriers to investment in SFM, such as: (i) investment risks and uncertainties; (ii) cash-flow problems associated with long-rotation periods; and (iii) access by the private sector to credit and to technical forestry support. There are many examples of successful instruments. Additionally, there is a clear indication from private investors interested in SFM that they require stability and reliability in the rules and conditions governing investment.

While designing policies to attract international private capital, attention should be paid to three general issues:

- attracting more private capital on the basis of its benefit to sustainable development goals;
- ways to increase the beneficial consequences of such private capital; and
- ways to minimise the detrimental consequences. (Jun and Brewer 1997).

International public resources (ODA) received considerable scrutiny and analysis by the IPF. ODA typically supports environmental conservation, social development, infrastructure, capacity building, and technical assistance. More recently there is growing interest in supporting the internalisation of global externalities. About twenty donor countries and thirteen multilateral agencies are involved in giving ODA. However, their priorities and strategies for cooperation may not always match those of recipient countries. This situation underscores the importance of formulating country-driven national forest programmes as the basis for international cooperation.

Within the IPF and other fora, there seems to be a fairly clear agreement, in principle, that international cooperation should support national forest programmes in developing countries through a programmatic approach. At present, the somewhat scattered project approach prevails in most situations, but new approaches are being pursued and developed in some countries. Coordination and partnerships are still the key to improving the effectiveness of ODA. This is not a new concept, but its implementation can be greatly improved and expanded.

ODA has remained one of the main sources for financing forestry operations in developing countries. ODA generally carries conditionalities linked to the necessary preconditions for effective implementation. However, less attention has been given to linking performance to future funding. Such a link would test the absorption capacity, the degree of commitment (financial and non-financial) of recipient. It might also improve the predictability of concessional funding.

5.3. Innovative Mechanisms for New and Additional Financial Resources

Innovative financing mechanisms tend to fall into two categories: they are either designed to remove barriers to investment in SFM, or they are financial vehicles used in other sectors and then adapted to SFM. Innovative financing mechanisms are generally designed to address the problem of environmental externalities (Costa et al. 1999).

SFM activities can be grouped into four areas: production, conservation, plantation, and products industries (Costa, et al. 1999). Innovative financing mechanisms can also be grouped into four areas.

- 1) Direct commercial financing mechanisms
- 2) Direct concessional financing mechanisms
- 3) Market development mechanisms
- 4) Structural mechanisms

The two direct types of mechanism, commercial and concessional financing (1 and 2) are closely related. Both involve the direct transfer of financial resources from source to beneficiary, usually for a specific purpose. Commercial financing mechanisms seek to channel commercial-rate investments (e.g., from conventional capital markets), a characteristic of the private sector. Concessional financing mechanisms rely on concessional or sub-commercial financing, such as grants or below market-rate loans.

The third category of mechanisms, market development mechanisms, seek to create, promote, or develop new markets for services provided by SFM activities previously unrecognised as tradable commodities by conventional markets. Their principal aim is to provide forest users and managers with a means of recovering the incremental costs of SFM, by compensating for localised costs that provide the trans-boundary benefits. This would forego the need for less effective subsidy or compensation arrangements. As SFM is inherently concerned with valuing the full range of functions played by forests, these market development mechanisms ultimately seek to provide a direct market-based incentive for forest users to make the transition from unsustainable forestry to sustainable methods.

The fourth and final grouping, structural mechanisms, consists of mechanisms that do not fit neatly within the other three categories. They have been termed 'structural mechanisms' in so far as they address structural barriers to SFM investment. Barriers are largely caused by widespread policy failures, such as the 'perverse' incentives for unsustainable forest management often built into fiscal regimes. Market development mechanisms, which seek to redress endemic market failures, can be regarded as a

specialised sub-set of structural mechanisms (ibid.).

Table 2 assesses various innovative financing mechanisms' applicability to the four categories of SFM listed above. A designation of 'possibly' or 'unlikely' implies that the mechanism's applicability is subject to the way the mechanism is developed or managed, the circumstances of the investment in question, the requirements of the financing source, or a range of other factors. Also included are very approximate estimates of each mechanism's funding potential for the range of eligible SFM activities. No attempt is made to quantify this potential. Instead, general designation 'low', 'medium', or 'high' is used. This scale is intended only for comparative purposes within the context of this table. It should be noted that many of the mechanisms considered have yet to be implemented, or are only implemented in non-SFM sectors.

Certain observations can be made from the albeit cursory comparative assessment provided by Table 2. First, it seems that conservation activities have the greatest potential access to innovative financing. This is unsurprising, as many emerging mechanisms have been explicitly designed to address the lack of conventional financing available for conservation. However, some argue that greater attention should be paid to unsustainable activities, which includes timber extraction. They point to the need to put logging operations onto a more sustainable footing, including the widespread introduction of reduced-impact logging techniques. This requires consideration of new innovative financing mechanisms designed towards this end, or the broadening of the objectives or scope of the existing or proposed mechanisms considered here.

The need to broaden the approach is further reinforced by the evidently different focus of commercial and concessionary direct financing mechanisms. Innovative market-rate finance from private commercial sources is largely targeted towards extractive operations in plantations and natural forests managed for production, as well as the downstream forest product industries. Conversely, concessionary financial sources tend to be designed for conservation activities. If the divergence is not addressed, commercial interests in the private sector will remain largely oblivious to the range of concessionary financing mechanisms, particularly those managed or developed by international institutions. Finding ways to engage the private sector in SFM is critical.

Second, although market development mechanisms offer perhaps the most significant potential for ensuring the widespread implementation of SFM, by creating financial incentives for forest users and managers to provide a range of services other than timber production, their funding potential is more limited than the other categories of mechanisms. A notable exception is the Clean Development Mechanism (CDM), a new financing possibility emerging from the Kyoto Protocol of the FCCC. The CDM heightens the imperative to ensure that the ongoing market developments based on these mechanisms are structured in a way that streamlines transactions (which translates into ease of recoverability of incremental costs incurred by forest managers). It also ensures the market is accessible to all types of forest users, particularly small-scale users. A similar argument is applicable to structural instruments .

Thirdly, SFM activities often require a combination of different types of financing from different sources. It is essential therefore for effective ways to be developed to combine both innovative and conventional financing mechanisms, to access different scales of financing flows from a range of domestic and foreign sources. Such considerations should be incorporated, a priori, into the earliest possible design and implementation phases of these and other financing mechanisms. In addition, easily accessible investment packaging and finance structuring facilities should be developed at global, national, and local levels (ibid.).

Table 2. Innovative Financing Mechanisms for SFM: Applicability and Funding Potential

	<i>Innovative Mechanism</i>	<i>Funding Potential</i>	<i>Categories of SFM activities</i>			
			<i>Production</i>	<i>Conservation</i>	<i>Plantation</i>	<i>Productive Industries</i>
A. DIRECT COMMERCIAL FINANCING MECHANISMS						
1	Portfolio equity instruments	high	yes	possibly	yes	yes
2	Public-private instruments	high	yes	yes	yes	yes
3	Sector-defining investment funds	medium	yes	possibly	possibly	yes
B. DIRECT CONCESSIONARY FINANCING MECHANISMS						
4	National environmental funds	high	possibly	yes	unlikely	possibly
5	Debt-for-nature swaps	high	unlikely	yes	possibly	no
6	Conservation trust funds	low	no	yes	no	unlikely
7	Biodiversity venture capital funds	medium	unlikely	yes	no	possibly
8	Small and medium scale enterprise credit lines	high	yes	yes	unlikely	possibly
9	Small targeted grants	low	possibly	yes	unlikely	possibly
C. MARKET DEVELOPMENT MECHANISMS						
10	Clean Development Mechanism	high	yes	yes	yes	unlikely
11	Bio-prospecting fees	low	unlikely	yes	no	possibly
12	Water resource use charges	medium	yes	yes	yes	no
13	Tradable development rights	low	possibly	yes	unlikely	no
14	Marketable forest protection and management obligations	medium	yes	yes	no	no
D. STRUCTURAL MECHANISMS						
15	Fiscal instruments	high	yes	yes	yes	yes
16	Environmental performance bonds	medium	yes	unlikely	yes	unlikely

Source: Costa et al. 1999.

5.3.1. Examples of Innovative Financial Mechanisms

National environmental funds have been established in a number of developing countries. Such commercial environment-oriented capital could have significant potential for SFM financing, but usually focus on conservation.

National Forest Funds (NFFs) are special public funds set up to finance specific activities for forest development. Many funds are financed from a percentage of forest levies or taxes. NFFs are operational in most Latin American countries as well as in Indonesia, British Columbia (Canada), and many states in the US. The attraction is that public expenditures on SFM have the potential to be largely auto-financing. However, some feel that earmarking tax receipts for SFM may constrain efficient public resource allocation.

Environmental service charges are paid by beneficiaries for the range of services provided by forests, particularly fees for water from watershed forests. Many countries, including Japan, Costa Rica, Colombia, and the US (e.g., in New York City), transfer part of the revenues generated from water supply and hydropower generation to finance forest management programs in the watersheds. Costa Rica has extended the concept to raising revenues from energy taxes and compensating private landowners for conserving and managing forests on their lands.

Debt-for-nature swaps, perhaps the oldest innovative financing mechanism in forestry operations have retired US\$159 million in face-value of debt thus far. The United States has recently enacted The Tropical Forestry Conservation Act (PL 105-214), 1998, which allows qualifying developing countries to restructure their debts to the US in exchange for actions to save their tropical forests.

Forest-based carbon offsets could have significant implications for forest finance. The Kyoto Protocol of the FCCC has opened two new venues for mobilising additional resources. First, it created carbon-trading options among countries, under the Clean Development Mechanisms. Industrialised countries can meet their emission reduction obligations through carbon offset projects in developing countries. Second, industrialised countries may use forestry and land-use change as strategies to meet greenhouse gas (GHG) reduction obligations. The global demand for carbon credits is likely to reach billions of US dollars per year, once the necessary trading mechanisms are in place. Many technical, legal, and institutional issues must be resolved before this becomes an operational mechanism. The issue of whether forests and land use projects can be funded by the CDM is still under discussion.

Biodiversity patents or bio-prospecting fees involve creating an international legal basis for licensing biodiversity use and extracting a payment commensurate with its economic value. The Costa Rica-Merck Industry agreement was the first such example. Brazil is now launching a programme for cooperative research on the biochemistry of tropical forests, including work on product licensing. Some of the critical issues around these mechanisms are intellectual property rights and enforcement, biodiversity valuation (i.e., society's willingness to pay), synthetic techniques to produce biochemical molecules, and benefit sharing.

5.4. Investment Promotion Entities

Whatever the outcome on public funding arrangements, the private sector, and its productive, entrepreneurial aspects, must be recognised, reinforced, and promoted in SFM activities. Mobilising private sector resources has thus been identified as a key component of any global financing strategy for SFM. To accomplish such mobilisation, many of the barriers to investment in SFM activities and operations must be removed or mitigated. Public sector financing, both bi- and multilateral ODA and domestic funds, can play an essential catalytic role in this process. A possible model for such a role is described here in the form of an *investment promotion entity*. Such an entity would be specifically charged with using public sector resources to leverage private sector financing for SFM investments. Its operations would be primarily at the global level (Costa et al. 1999).

The word 'entity' is intentionally used as neutral term. It should not be interpreted as corresponding to any particular structure, size, or scope. Also, the entity is explicitly designed not to play a major role in direct investments of its financial resources at the project level, neither through grants, lending facilities, incremental cost support (like the GEF) nor any other means. It should not, therefore, be regarded as a SFM 'Fund' in the usual sense.

The form and structure of this entity are less important than its functions, which are best considered on their own merits and in their own right and, where appropriate, integrated into existing institutional remits.

The defining objectives of this proposed entity would be to mobilise and facilitate financial flows to SFM activities in developing countries. This would be accomplished by capitalising on both existing and potential public and private sector financial resources, primarily at the global level, with a specific view to leveraging higher levels of private sector finance.

To this end, the entity would carry out activities akin to '*innovative investment banking*', using a suite of existing and new innovative financial mechanisms to promote investment in SFM. Additionally, the entity will aim to redirect private sector resources currently flowing into non-sustainable forestry. This would be accomplished by facilitating access to information and technical assistance, and by promoting the development of necessary financial and regulatory structures.

Its private sector-oriented role requires the entity be as slim, streamlined, and efficient as possible. It must be capable of dealing with the pace and demands of private sector investors and forest operators, and be able to avoid large overhead costs.

The entity's core activity would be centred on investment packaging and the structuring of financial deals for SFM operators, primarily in the private sector. In support of this core activity, the entity would provide information related to a wide range of SFM investment parameters. It would also identify and promote SFM investment opportunities. The entity's other main activity would be providing streamlined access to risk-mitigation services and facilities.

In addition, there is potential scope for the entity to play a contributing role in ongoing structural reforms in the forestry sector at the international level, as well as at the national level, through partner institutions such as Interagency Task Force on Forests (ITFF) members.

The entity would require its own initial funding to set up the necessary informational infrastructure, and to provide working capital to initiate operations. However, it could be self-financing in subsequent years. This could be done through charging appropriate investment facilitation fees for the service it provides to its clients. The entity could be an independent body, or could be attached to an existing financial institution or institutions.

CHAPTER 6. PRELIMINARY CONCLUSIONS AND OPTIONS FOR FURTHER ACTION

6.1. Conclusions

The need for financial resources to support sustainable forest management in developing countries is substantial, but the supply of resources is limited. Thus, the forest sector requires a multi-pronged approach to remain aggressively competitive. This includes increasing financial resources from all sources, as well as increasing the efficiency and effectiveness of available resources and mechanisms. There are elements of SFM that clearly require financial arrangements related to the private sector while others require increased public funding.

The private sector could and should play a significant role in filling the resource gap in forestry. Public sectors, both national and international, should make every effort to make private sector investment in sustainable forestry that is secure and commercially viable. For this, a stable and transparent social, economic, and political environment will remain an important pre-condition.

Significant sources of new and additional financial resources are to be found in the internalisation of positive global externalities of forests, and in the creations of markets for global environmental services provided by the forest sectors of developing countries. Recent developments in the UN Framework Convention on Climate Change offer new opportunities for forest financing, which call for collaborative research and policy dialogue between the IFF and FCCC.

The establishment of an international forest fund is a political question. Careful consideration should be given to the conceptual foundation, practical implications, and legal framework-including such issues as the institutional structure, revenue sources, magnitude, and funding criteria. The evaluations of existing 'funds' have indicated that an international fund can be effective, if based on a formal legal instrument.

Within their current frameworks, international arrangements and funds cannot address all the essential elements of SFM. Because it is apparent that public funds will not be available in the required amounts, and because it is clear that private sector funding has a very important role to play in SFM, an investment promotion entity is proposed for discussion. It is designed as a flexible, self-sustaining, and market-based agency to facilitate investment in SFM. It could coordinate and capitalise existing sources and mechanisms to promote the mobilisation of resources for SFM.

The lack of reliable data on financial flows is a serious limitation to understanding the nature of these issues. Addressing this gap would greatly increase the ability to synthesise and learn from the experiences of various countries and various SFM efforts.

6.2. Proposals for Action

To support enhanced financing for activities related to SFM, the IPF made several proposals for action that are still valid today (see E/CN.17/1997/12). Therefore, the Forum may wish to reaffirm those proposals and urge all countries and relevant organisations to recommit to their implementation.

The IPF 'Proposals for Action' to support developing countries included:

- more coordinated and collaborative actions among developed and developing countries, multilateral organisations, and the private sector;
- recalling the Agenda 21 commitments for new and additional financial resources, including ODA;
- enhancing the absorptive capacity of developing countries;
- reforming economic, forest, and financial policies to increase forest revenues, reduce perverse subsidies and promote private sector investment in SFM;
- increasing concessional lending;
- resolving developing country debt problems; and
- encouraging private sector investments, including from the local communities, in SFM activities through various economic and financial incentives.

In addition to reaffirming the IPF 'Proposals for Action', the Forum may wish to consider the following proposals for action.

- Urge developed countries and relevant organisations to review their international forestry assistance i) to improve institutional capacities of developing countries, ii) to base their assistance on the priorities identified in the national forest programmes of recipient countries, iii) to increase effectiveness of available resources, and iv) to increase their ODA contributions.
- Urge countries and relevant organisations to explore the role of forests in (i) mitigating greenhouse gas emissions and the related possibilities for financing SFM and (ii) marketing biodiversity and other environmental services provided by forests as means for financing SFM.
- Urge countries and relevant organisations to help developing countries identify and further develop innovative financial mechanisms, as well as share experiences and information.
- Urge countries to undertake programmes and projects aimed at mobilising the resources of community and rural households towards sustainable forestry, as a means for income generation and rural development.
- Urge countries and relevant organisations to undertake activities towards a systematic collection and analysis of data on financial flows in the forest sector and make reliable, updated information available.
- Urge countries to consider different modalities for a global mechanism to generate and allocate sustained financial resources for the sustainable management of forest resources.

This last proposal may also require, concomitantly, discussion of a new international arrangement (or institution) dealing with the conservation, management, and sustainable development of all types of forests. The proposed investment promotion entity concept is one possible element of such an arrangement. The Forum may wish to specify any preparatory studies it wishes the Interagency Task Force on Forests to carry out on this and other options proposed here.

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ANNEX I. Report of the Ad Hoc Intergovernmental Panel on Forests on its Fourth Session on its Category II.a.: Financial Assistance (source: <http://www.un.org/esa/sustdev/iff.htm>)

(New York, 11-21 February 1997)

II. INTERNATIONAL COOPERATION IN FINANCIAL ASSISTANCE AND TECHNOLOGY TRANSFER

A. Financial Assistance

Conclusions

59. The Panel emphasised that the issues of financial assistance and transfer of technology are cross-cutting, inter-linked and essential for the management, conservation and sustainable development of all types of forests, particularly in developing countries and countries with economies in transition. The Panel reiterated that those cross-cutting issues are critical to progress in all the other programme elements within its terms of reference.

60. In proposing measures to address those issues, the Panel emphasised the need to take into account the Forest Principles and relevant chapters of Agenda 21. The Panel recognised that existing resources are insufficient to achieve the management, conservation and sustainable development of all types of forests. The Panel further recognised that there is a need for greater financial investment from all sources, as well as a need to improve the absorptive capacity of developing countries to use financial resources.

61. The Panel recognised that in developing countries, domestic resources for financing the management, conservation and sustainable development of all types of forest are scarce and international financial sources remain vital. It reiterated the need for external support through ODA and the provision of new and additional financial resources, and emphasised the need to mobilise new, innovative and additional forms of finance at the public, private, international, domestic and local levels. However, while recognising the important potential in innovative financial packages and new types of public-private partnerships, the Panel emphasised the continuing importance of international public finance and of existing commitments to it, and the need to promote the predictability and continuity of flow of financial resources. The catalytic and leveraging roles of international public funding remain essential for developing countries. It recognised that more effective use of available finance is conducive to attracting additional resources.

62. The financing needs for sustainable forest management at the national level should, as far as possible, be met by the revenue generated by the forest sector itself, be it the public or private

sector. Some countries, with valuable forest estates and stronger economies have much greater potential for generating private-sector and domestic public investment than others. National forest programmes and similar policy instruments can be an important policy tool, and can serve as a means of promoting, prioritising and coordinating both public and private financial investments. Community financing is also an important element in enhancing the sustained productivity of forest resources. Experience suggests that despite their low income level, many forest-dependent communities can mobilise substantial labour, material and capital resources for forest development, and appropriate policy changes can enhance that potential.

63. The Panel noted that, in general, private capital flows are growing and are increasingly greater than public funding, but are distributed unevenly among developing countries. That trend is also visible in the case of private investment in forests. The Panel recognised, therefore, that it is critical for countries to take the necessary measures to introduce appropriate policies and create an enabling environment to attract such private-sector investment. Policies that address long-term land tenure rights and encourage local community investment in sustainable forest management could mobilise significant financing. Investment in forests may be encouraged by voluntary codes of conduct for sustainable forest management, stronger national regulations and enforcement, full cost internalisation in the pricing of renewable resources and various incentives. Policies and regulations should be carefully evaluated before implementation to avoid negative social and environmental impacts and market distortions, which would create disincentives.

64. The Panel underscored the need to fulfil the financial commitments of Agenda 21, especially chapter 33, with the aim of achieving the management, conservation and sustainable development of all types of forest, including, where appropriate, the protection of representative forest ecosystems. Efforts in developing countries to secure additional financial resources and technology at domestic level need to be strengthened, and should be supplemented from international sources. ODA remains a main source of external public funding, and has as a principal aim alleviating the poverty that is one of the main causes of deforestation. It will continue to play an important role in supporting forest-related activities in developing countries, especially where it is difficult to attract financing from other sources, for example, in developing countries, with low forest cover. The Panel expressed its concern that funding levels, including ODA, are insufficient and declining, and that sustainable forest management is not given sufficient priority in ODA. While there is a continuing challenge to ensure that ODA funds for forest sector are used as efficiently as possible, that is independent from the issue of trends in international public sector financing. Forest-related projects that have global environmental benefits should also be supported

through GEF programmes, under the guidance provided by the conferences of parties of the relevant international instruments.

65. The Panel emphasised the need to examine ways to enhance international cooperation. It stressed the need for the international community to find durable solutions to the debt problem of developing countries in order to provide them with the needed means for management, conservation and sustainable development of all types of forests. Other forms of innovative financing should also be explored. Market-based instruments, such as taxes, levies, user fees and domestic public investments, could generate additional financial resources to support activities for sustainable forest management and conservation. A whole range of options relevant to specific national conditions warrant further examination. Adequately valuing forest resources and creating markets that reward sustainable forest management would contribute to the management, conservation and sustainable development of all types of forests, and would generate needed public resources.

66. The Panel emphasised that in-country coordination and cooperation among donors is crucial in view of the need to make the best use of limited financial resources. National forest programmes provide a good basis in many countries for national and international cooperation, including setting priorities for financial assistance and technology transfer between recipient countries and donors.

Proposals for action to strengthen financial assistance

67. The Panel:

(a) Recalled the Rio Declaration on Environment and Development and relevant chapters of Agenda 21, as well as paragraph 10 of the Forest Principles, which states that new and additional financial resources should be provided to developing countries to enable them to sustainably manage, conserve and develop their forest resources, including through afforestation, reforestation and combating deforestation and forest and land degradation;

(b) Urged recipient countries to prioritise forest activities or national resources development strategies that would favour sustainable forest management and related activities in programming the ODA available to them, and also urged donor countries and international organisations to increase the proportion and availability of their ODA contribution to programmes supporting the management, conservation and sustainable development of all types of forests in order to respond to increased priorities for sustainable forest management in recipient countries;

(c) Requested the relevant United Nations organisations, international financial institutions, other international

organisations and the donor community to work with developing countries, on the basis of national forest programmes, to identify their needs for sustainable forest management, estimate the resources required to finance such needs and identify the resources available to them for such purposes, including ODA;

(d) Urged international organisations and international financial institutions to use national forest programmes, as appropriate, as a framework for the support and coordination of forest-related activities;

(e) Encouraged countries, through appropriate channels, to support increased and improved programmes promoting the management, conservation and sustainable development of forests and related activities in international organisations and international financial institutions, whose programmes should consider further concessional lending for the forest sector;

(f) Invited UNDP and the Bretton Woods institutions, together with other relevant international organisations, to explore innovative ways to both use existing financial mechanisms more effectively and generate new and additional public and private financial resources at the domestic and international levels in order to support activities for the management, conservation and sustainable development of all types of forests;

(g) Recognised the importance of increasing resources available to developing countries for promoting the management, conservation, and sustainable development of all types of forests, welcomed the progress that has been made in devising and implementing debt relief initiatives, and bearing in mind General Assembly resolution 50/92, urged the international community, particularly the creditor countries and international financial institutions, as well as commercial banks and other lending institutions, to continue the implementation of various measures aimed at effective, equitable, development-oriented and durable solutions to the external debt and debt-servicing problems of developing countries, particularly the poorest and heavily indebted countries, including exploring the opportunities for innovative mechanisms, such as debt-for-nature swaps related to forests and other environmentally oriented debt reduction programmes.

68. The Panel also discussed the proposal that an international fund be established to support activities for the management, conservation and sustainable development of all types of forests, particularly in developing countries. The following options for action were discussed, without a consensus being reached on those or other possible procedures:

(a) To urge the establishment of such a fund;

(b) To invite the international community to discuss the proposal;

(c) To pursue action to enhance funding in other ways, inter alia, as proposed in paragraph 67 (f) above.

Proposals for action to enhance private-sector investment

69. The Panel:

(a) Urged all countries, within their respective legal frameworks, to encourage efforts by the private sector to formulate, in consultation with interested parties, and implement voluntary codes of conduct aimed at promoting sustainable forest management through private-sector actions, including through management practices, technology transfer, education and investment;

(b) Urged countries to explore mechanisms, within their respective legal frameworks, to encourage their private sector to act consistently with sustainable forest management and to invest financial resources generated from forest-based activities in actions that support sustainable forest management;

(c) Urged countries to explore mechanisms, within their respective legal frameworks, to encourage the reinvestment of revenues generated from forest goods and services back into the forests where those revenues were generated;

(d) Invited developing countries to promote policies and regulations aimed at creating a favourable environment to attract the domestic and foreign private sectors, as well as local community investment, for sustainable forest management, environmentally sound forest-based industries, reforestation, afforestation, non-wood forest product industries, and conservation and protection of forests;

(e) Urged developed countries to formulate and create incentives, such as loan and investment guarantees, to encourage their private sector to invest in sustainable forest management in developing countries, as well as in countries with economies in transition.

Proposals for action to enhance national capacity and national coordination

70. The Panel:

(a) Urged recipient countries to establish country-driven national forest programmes that include priority needs and that serve as an overall framework for forest-related policies and actions, including the coordination of financing and international cooperation, and urged donor countries and international organisations to support

national initiatives to create national forest programmes and policy framework in developing countries;

(b) Encouraged countries in a position to do so to continue to develop and employ appropriate market-based and other economic instruments and incentives to increase rent capture and mobilise domestic financial resources in support of sustainable forest management, as well as to reduce social costs and negative environmental impacts due to unsustainable forest and land management practices;

(c) Encouraged countries, within their respective legal frameworks, international organisations and financial institutions, to enhance, subject to national legislation, community financing as an important strategy to promote sustainable forest management, and to establish policy and programmatic mechanisms and instruments that facilitate local investments in sustainable forest management by, inter alia, indigenous groups and forest owners;

(d) Suggested that recipient countries, where appropriate, identify a national authority responsible for in-country coordination in the deployment of financial resources, including ODA, and in requests for external assistance;

(e) Urged developed countries, international organisations and international financial institutions to support the efforts of developing countries in capacity-building in the management, conservation and sustainable development of their forests.

Proposals for action to enhance international cooperation

71. The Panel:

(a) Called for enhanced coordination, collaboration and complementarity of activities among bilateral and multilateral donors and among international instruments related to forests, notably the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, the Convention to Combat Desertification and the International Tropical Timber Agreement;

(b) Urged recipient and donor countries to jointly explore, as a priority activity, appropriate indicators for monitoring and evaluating the adequacy and effectiveness of forest programmes and projects at the national and local levels, supported by international cooperation in financial assistance and technology transfer;

(c) Encouraged countries to explore the feasibility of innovative financial initiatives to support the implementation of national forest programmes.

ANNEX II. Co-Chairmen's Summary of Discussion from IFF-II on Programme Element II.a.: Financial Resources (source: <http://www.un.org/esa/sustdev/iff.htm>)

Geneva (24 August – 04 September 1998)

II.a. Matters left pending on the need for financial resources (programme element II.a)

Co-Chairmen's summary of discussion

1. The participants noted the following, in moving towards the preparations for substantive discussion at the third session of the Forum:

(a) The issue of financial resources for sustainable forest management is closely linked with the broader discussion of the key role which financial resources and mechanisms play in the implementation of Agenda 21; participants underscored the importance of the conclusions on financial assistance contained in the report of IPF on its fourth session, as well as the conclusions on financial resources and mechanisms contained in the Programme for the Further Implementation of Agenda 21, adopted by the General Assembly at its nineteenth special session, (see note #7) and of the Forest Principles, in particular principle 10;

(b) The proposals for action of IPF on financial assistance to support sustainable forest management should be fully implemented;

(c) The participants considered the role of various funding sources – domestic, external, public and private – in achieving sustainable forest management, as well as the recent trends in financial flows from various sources to the forest sector;

(d) The participants felt, however, that reliable data on both public and private financial flows and investments in the forest sector were often difficult to obtain; some attributed this shortcoming both to complexities in design and to a wide range of programmes that benefit forests, as well as related difficulties in data collection and processing at the national and international levels;

(e) The issue of subsidies was addressed; it was stressed that subsidies that encourage unsustainable forestry and discourage investment in sustainable forest management should be avoided. Further work in this area was warranted and should be guided by the conclusions on subsidies contained in paragraph 85 of the Programme for the Further Implementation of Agenda 21;

(f) Concerns were expressed that ODA, which constitutes a major external source of funding for forestry in many developing countries, was decreasing. It was felt that more ODA could be channelled into the forest sector if an enabling environment was created. It was also suggested that, even within existing levels, more ODA could be channelled into the forest sector if sustainable forest management was given higher priority within national development strategies;

(g) The participants considered the situation of developing low forest cover countries, in particular those that are least developed countries, and stressed that special attention should be given to the need for international support for their afforestation for land rehabilitation, reforestation and restoration of degraded forests and for sustainable management of existing, often unique, forests programmes, which usually encounter difficulties in attracting international funding;

(h) The need to further examine the potential innovative financial mechanisms and schemes to mobilise resources for sustainable forest management was expressed; among the innovative mechanisms mentioned were schemes recognising the contribution of forest owners in providing such environmental services as carbon sequestration, preserving biological diversity and performing watershed functions; channelling proceeds from ecotourism towards forest conservation and sustainable forest management; and debt-for-nature swaps;

(i) The participants also stressed the importance of the private sector in financing sustainable forest management; it was suggested that private sector representatives be invited to participate in the next session of the Forum;

(j) Participants expressed a range of views regarding the desirability and practicality of establishing an international forest fund for financing activities related to management, conservation and sustainable development of all types of forests including the implementation of IPF proposals for action. In this regard, the need for a comprehensive assessment of the potential use of existing funds and financial mechanisms, both domestic and international, for financing sustainable forest management programmes was underscored.

2. As regards guidance for the Secretariat in preparing for the third session of the Forum, the Forum requested the Forum Secretariat to:

(a) Update and evaluate the existing data on public and private financial flows and investments from external sources, including ODA to the forest sector in developing countries as well as domestic funding to sustainable forest management in developing countries; this should take into account the contribution of local communities to sustainable forest management. It was suggested that countries provide data that would assist in synthesising financial information on the forest sector;

(b) Synthesise the experience of countries with both traditional and innovative financial mechanisms in promoting sustainable forest management. Countries were invited to make available their experiences on innovative financial mechanisms;

(c) Cooperate with the secretariat of the United Nations Framework Convention on Climate Change and report, as appropriate, on financial aspects related to the role of forests as a carbon sink;

(d) Examine and identify areas in developing low forest cover countries where assistance could be directed so as to best serve and enhance their afforestation for land rehabilitation, reforestation and restoration of degraded forests and for sustainable management of existing, often unique, forests programmes;

(e) Synthesise current evaluations of GEF and other international financial mechanisms as regards their potential for financing sustainable forest management and to facilitate consideration by the Forum of (i) desirability of further coordination of existing financial sources and mechanisms and (ii) the proposed international forest fund.