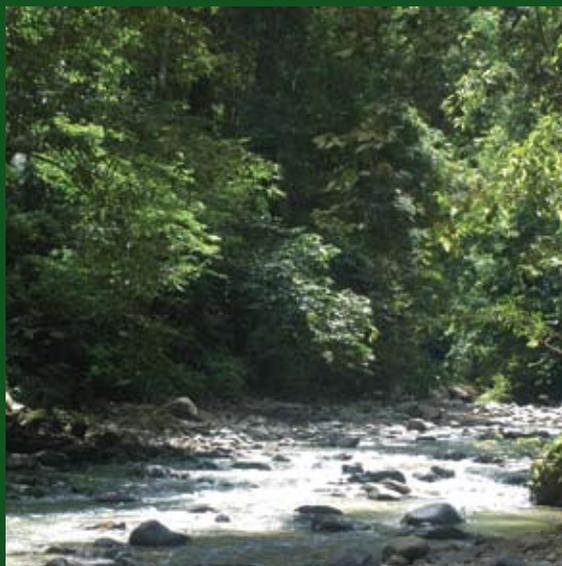


Making knowledge work for forests and people



Annual Report 2008



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From our chairman



In 2008 tropical forests moved centre stage in the international debate on forests. Three events illustrate this increased awareness about the importance of forests for the global, national and local community.

First, the UNFCCC Conference of Parties in Bali, Indonesia, recognised the need to address deforestation and forest degradation in a new Global Climate Change agreement scheduled to replace the current Kyoto protocol in 2012.

Second, in 2008 the European FLEGT initiative to ban imports of illegal timber took a significant step forward. Ghana became the first timber producing country to sign a Voluntary Partnership Agreement with the EU.

Third, forest use and forest conservation in many developing countries often provide insufficient incentives for sustainable forest management, mainly because they fail to capitalise on all the forest goods and services. UNFF 7 highlighted this problem and promoted the development of a wide range of financial instruments in support of the sustainable use of forests.

The Dutch government, Tropenbos International's main funding agency, also took some important domestic initiatives. Three ministries established the Biodiversity and Natural Resources Taskforce to advise the government on the protection and sustainable use of biodiversity, and on measures to better protect valuable and vulnerable ecosystems.

If forest-rich tropical countries are to reduce deforestation and forest degradation, and eliminate illegal timber from national and international markets, they will need to adjust their national policies and regulations. They will have to build the institutional capacities needed to implement these policies, and they will need sound information and support to prepare them for this challenge.

In 2008 Tropenbos International (TBI) rose to these challenges. In Suriname, TBI carried out a case study on existing funding schemes for sustainable forest management, and ran a well attended course on the same subject in preparation for a UNFF country-led initiative organised by Suriname and the Dutch and US governments.

In Ghana, TBI played a pivotal role in the country's national debate on illegal logging. TBI provided information on the functioning of the domestic timber market, which accounts for half of the country's timber production, and chaired civil society meetings with stakeholders to discuss what constitutes illegal logging and measures to combat it.

In Colombia, the National Environmental Forum analysed government policy related to indigenous territory and its contribution to sustainable livelihoods and conservation. Participating in this event, which was co-organised by TBI Colombia, were the Ministry of Environment, Housing and Territorial Development and the National Planning

Council. In addition, Colombia is one of three countries involved in a project with the EU which will use TBI's methods to support the governance and management of natural resources by indigenous communities in protected areas.

With these challenges high on national and international agendas, TBI's ambition is to continue expanding its activities to produce valuable and highly relevant information on forests, helping countries to shape better policies and practices, and build the personal and institutional capacity to implement them.

Rudy Rabbinge

From our director



In 2008 the world again expressed concern about the fate of tropical forests and the people who depend on them for their livelihoods. To improve the way forests are managed and governed and to ensure that the benefits from forests are shared in an equitable manner, Tropenbos International (TBI) develops and implements research and capacity building programmes in Southern developing countries.

In 2008 these programmes made some significant achievements. In Latin America, TBI and its partners published a synthesis report on financial instruments supporting sustainable forest management in eighteen countries in the region, and a European Tropical Forest Research Network newsletter on the same subject. This publication and the underlying studies played a pivotal role in the development of national forest financing strategies in the region.

Ghana's decision to include the domestic timber market in the Voluntary Partnership Agreement on illegal logging between Ghana and the EU has made TBI's work on chainsaw milling in the country relevant to the further development and implementation of this agreement.

TBI's new Congo Basin programme identified three themes for Cameroon and the Democratic Republic of Congo, the two focal countries of our programme. One of these themes, small-scale timber production, is crucial for both countries, given their current engagement with the European Union's initiative on combating illegal logging, FLEGT. The impact of roads, railways and waterways on forests and people is another theme important for a region where many such infrastructural works are currently planned. And finally, the programme will address communal forest use as an instrument to improve livelihoods.

In 2008 TBI was successful in mobilising funds for its programme. A five-year agreement was signed with the Netherlands Ministry of Agriculture, Nature and Food Quality for collaborative activities. Two new projects grant-aided by Nuffic will enable TBI to strengthen its institutional development programme, and in Suriname, TBI successfully tendered for the management of a capacity development fund for the forest sector.

In our programme financed by the Netherlands Ministry of Foreign Affairs and others, a number of themes emerged that helped raise TBI's institutional profile internationally. These include forest financing mechanisms, small-scale logging and the domestic market, communal forest management and livelihoods in forested landscapes.

Based on these achievements TBI and its many partners are confident that in the coming years we can continue to put our mission – to make knowledge work for forests and people – into practice.

Rene Boot, Director



Getting acquainted with Tropenbos International

Millions of people in the tropics depend on forests for their livelihoods, and yet these resources remain undervalued and threatened. Over the years, TBI has established itself as an important platform supporting the forest and development agenda in developing countries. We have built a reputation for generating knowledge and building personal and institutional capacity, facilitating dialogue, and strengthening the links between national and international forest debates. These are necessary to successfully introduce knowledge and evidence into major policy and management decisions. They also define TBI's role as an intermediary between the policy and management communities and the research community. Our ultimate goal is better governance and management of tropical forest resources.

TBI addresses problems by developing and managing multiple research and capacity building programmes. The research projects in each TBI programme address locally articulated forest sector issues, while creating individual and organisational capacity to generate and apply knowledge. The international agenda co-determines the selection of issues to be included in each programme; the outcomes of each programme help to feed the international agenda with cases, experiences and lessons learnt.

Our programmes are implemented through partnerships of organisations with varying interests and responsibilities

relating to forests and forestry. Universities and research and training institutions are responsible for research and training, while partners representing forest policy and forest use define the issues and guide the direction of each project. Local needs and local partners assume a leading role in the formulation and implementation of the programmes. Dutch and other Northern partners play an important supporting role. TBI itself facilitates the partnerships and resulting activities.

Over the years, we have evolved into an organisation that makes knowledge work for forests and people by enabling well-informed decision making for improved management and governance of tropical forests. Our longstanding local presence and ability to bring together local, national and international partners make us a trusted partner in sustainable development.

In 2008 there were six operational country programmes, in Colombia, Suriname, Ghana, Cameroon/Congo Basin, Viet Nam and Indonesia. TBI was



also involved as a partner in projects in Bolivia and Guyana. In addition, TBI contributed to regional projects in Latin America, with activities in many countries in that region.

In this annual report we provide an overview of the different activities that Tropenbos International has undertaken in 2008. First, we introduce you to some of our themes such as

e.g. forest certification for biodiversity conservation, financing sustainable forest management, the managing multifunctional landscapes and chainsaw milling and domestic timber markets and one of our main approaches institutional strengthening and capacity building. We then review our country programme activities. You can also read about specific projects and, of course, about us, Tropenbos International.



Does forest certification work for biodiversity conservation?

Forest certification is widely seen as an important component of strategies for conserving the world's forests. During the 1990s concern about the loss of biodiversity in logged forests was a key driver behind the emergence of forest certification. It was thought that production forests could play a bigger part in conserving nature by adhering to a strict and widely agreed forest management standard that considers the effects of logging and other forest management activities on biodiversity. Since the introduction of forest certification more than 300 million hectares of forests have been certified under a variety of schemes, although less than 20 million hectares are in the tropics, mostly certified by the Forest Stewardship Council (FSC).

Although interest in forest certification has waxed and waned, it remains a cornerstone of forest policies. But does it work? As more than 15 years have passed since the first certificate

was issued, it should be possible to evaluate the effectiveness of certified forest management by comparing the conservation performance of certified forests with non-certified forests.

A literature study on this subject (see Box 1) has revealed the difficulty of providing a clear answer to this question. In the first place, in most certified forests the data needed to assess the effects of management on biodiversity are not being systematically collected. Data from non-certified forests, which are needed for comparison, are even harder to find. The scientific community has not yet risen to the challenge of providing evidence of the effects of certified forest management on a comprehensive scale. Studies focus on different species, use different protocols and do not address the large temporal and spatial scales covered by tropical production forest.

A complex issue

This is regrettable, but it does not come as a surprise, given the complexity underlying the concept of 'biodiversity' – even its simplest definition as species richness and abundance. Different species, even related ones, respond in different ways to the same management activity, and require different research protocols. Moreover, the short-term effects of logging may be very different from the long-term effects. Conclusions drawn about the changes in the number of species present in a forest may fail to reveal underlying shifts from forest specialists to habitat generalists.





Similarly, 'certified forest management' is a complex topic. Forests differ from place to place, and so management practices vary. Differences in logging intensity, logging pattern and timing, the size and variety of species harvested, extraction methods and post-harvest activities all contribute to different responses by plants and animals.

In the face of these difficulties, the conclusions drawn from the literature can only be tentative. Only a handful of studies, all in a certified forest in Sabah, have directly assessed the effects of certified forest management on a number of plant and animal species. They showed that populations of endangered animals increased. For want of any direct assessments of certified production forests, the literature study concentrated on a number of good forest management practices associated with certification, in particular reduced impact logging, the establishment of streamside buffers, protected areas and corridors, and high conservation value forests.

Biodiversity benefits

In general, the studies reviewed suggest that forest certification has positive biodiversity benefits. This is in agreement with information gathered from discussions with certifiers and forest managers with experiences

in the field. Despite the apparent differences in the rigour with which biodiversity concerns are addressed under different certification systems, the planning, supervision and basic good management practices required by all of them serve to mitigate many of the harmful environmental impacts of logging and other forest management activities. Similarly, these studies confirm that despite their better performance, certified forests are not fully equivalent to undisturbed or primary forests in terms of biodiversity.

Recommendations

The review also shows that the impacts of certified forest management on biodiversity cannot be assessed without a clear idea of the relative importance of species and the management objectives. This leads to several recommendations.

- As different species may be valued differently by different stakeholders – based on considerations of rarity, vulnerability, endemism, distinctness, economic usefulness, potential as a pest, religious and spiritual value, and many other considerations – formulating appropriate functions of production forests in conserving biodiversity requires debate and negotiation at the local level (but without dismissing global interests).
- The results of these discussions must be translated into practical management activities for achieving specific, measurable biodiversity objectives. These must be subject to periodic revision to accommodate changes in value perception and in the state of biodiversity in the forest.

- To further inform the trade-offs between biodiversity and the social and economic interests of forest management accepted by certifiers, scientists will have to provide quantitative, field-based evidence of species responses to forest management practices, and to propose modifications if that is required.
- Finally, biodiversity monitoring and audits of certified forest management should focus on these management

objectives rather than on general, unspecified biodiversity goals. Such goals are almost impossible to measure and, if they can be measured, hard to interpret.

The challenge for forest managers, certifiers and biodiversity researchers is to promote forest certification from a credible proposition to a demonstrated asset in the suite of instruments available for forest biodiversity conservation.

Box 1. Literature study

In 2008, the Netherlands Environmental Assessment Agency (NEAA) asked TBI to carry out a literature study of the effects of certified forest management on biodiversity in tropical, temperate and boreal forests. NEAA conducts outlook studies, analyses and evaluations of policies to support decision making on environmental, nature conservation and spatial planning issues in the Netherlands. The certification study will provide inputs into NEAA's Nature Balance, an annual review of the state of nature in the Netherlands. In parallel with TBI's study, Probos carried out an analysis of actual forest certification practices and the position of biodiversity criteria in certification.

For this study, TBI retained the services of ecologist Dr Marijke van Kuijk, a recent TBI Viet Nam PhD graduate, and Jack Putz, professor of forestry at the University of Florida and current holder of the Chair for International Nature Conservation at Utrecht University.

The study draws on a range of sources, including TBI's many studies of the impacts of forest management on biodiversity in the various country programmes. The former programmes in Guyana and Cameroon had strong research components on sustainable forest management, including plant diversity. In Indonesia, several researchers looked at the effects of forest disturbance on plants and animals. TBI has been involved in developing national forest certification standards in several countries, and the TBI publication *Hierarchical framework for the formulation of sustainable forest management standards* (Lammerts van Bueren & Blom, 1996) has been an important influence on the international forest certification debate.



Financing sustainable forest management

One of the major challenges facing TBI countries in their attempt to reduce forest degradation and deforestation is making sustainable forest use more competitive and economically attractive for investment. The main reason of the uncompetitiveness of Sustainable Forest Management (SFM) is the failure to capitalise on all the goods and services provided by forests. Payment for these goods and services is needed to ensure a due balance between the costs and benefits of sustainable management.

The challenge is to design National Forest Financing Strategies (NFFS) that contain appropriate objectives, principles and procedures for formulating and implementing forest financing policies, programmes and projects. Given the multifunctional nature of forests, these should always be based on the principles of sustainable management, encompassing institutional, social, economic, financial, technical and ecological elements. However, in many countries of the world, comprehensive national strategies do not exist, or they are provisional or partial, which restricts their implementation. Some of the TBI countries feel the need to formulate comprehensive financing strategies to support their forest policies and National Forest Programmes (NFPs).

Publication: status and prospects for forest financing

TBI has participated in two major initiatives that reviewed existing experience and achievements of

mechanisms for financing forest management in Latin America: the FAO/IUCN/CCAD project *Financing strategies and mechanisms for sustainable use and conservation of forests – Phase I: Latin America*, financed by the Netherlands; and the ACTO/DGIS-BMZ/GTZ regional programme *Sustainable use and conservation of forests and biodiversity in the Amazon region*, co-financed by the Netherlands.

Following on from these two initiatives, in 2008 TBI published a synthesis study of the current state and prospects for forest management financing by Herman Savenije (Netherlands Ministry of Agriculture, Nature and Food Quality) and Kees van Dijk (Tropenbos International). The report, *Hacia Estrategias Nacionales de financiamiento para el Manejo Forestal Sostenible en América Latina*, starts from the following premise: 'When forests do not have a high enough financial value



or an opportunity cost satisfactory to the producer, they tend to disappear.' It is based mainly on studies carried out in 19 Latin American countries. It makes the information from these national studies more widely accessible, sharing the experiences, ideas, doubts and conclusions, and highlighting the importance of planning and implementing comprehensive and well structured NFFSs. The study identifies some issues requiring special attention at both the national and international levels, and the need to involve as many professionals as possible in formulating these strategies. This will stimulate debate and encourage pertinent observations, improving and expanding the available knowledge on this subject.

Workshop module

The study served as the basis for the development of a three-day capacity building module which is used in the countries as a starting point for the design and implementation of NFFSs. The workshops facilitates joint working by the financial and forest sectors to develop innovative financing methods and create an enabling environment for financing sustainable forest management.

Workshops were held in 2008 in Guatemala, El Salvador, Peru and

Suriname, with the guidance and participation of the main authors of the synthesis study. In these countries the process of developing NFFSs is now underway and new ideas are emerging, particularly in Guatemala and El Salvador.

Other TBI activities

Outside the main project on forest financing mechanisms, a number of TBI projects and activities address this theme. In Suriname, TBI has contributed to an analysis of existing forest financing mechanisms, and to capacity building of national stakeholders participating in the UNFF Country-led Initiative on Forest Financing Mechanisms.

In Indonesia, a PhD project started on benefit sharing mechanisms related to Reducing Emissions from Deforestation and Degradation (REDD) in a number of pilot areas, and develop a financing scheme to do this in a fair way.

The chainsaw project in Ghana and Guyana addresses the drivers of chainsaw logging, which includes efforts to elucidate the informal financing structures that enable (illegal) chainsaw logging. In Ghana, this project links to other projects on fair benefit sharing mechanisms of the income generated by timber, which is a main impediment to legal and sustainable forest management in the country.



Tropenbos International and the landscape approach

Forest research has not always addressed all the ways that forests can contribute to human livelihoods and biodiversity conservation, nor the part played by forests in the landscape mosaic. Increasingly, tropical forests are no longer the only, and sometimes not even the dominant, land cover in the landscape. The people inhabiting these landscapes usually obtain only some of their requirements from the forest, alongside more disturbed ecosystems and man-made ecosystems such as agro-ecosystems. The conservation of forest services like biodiversity presents a different challenge in forest mosaics than in closed forest landscapes. At the level of complete landscapes, other interests and livelihood decisions not immediately related to forests have a major impact on the extent and quality of forests, but have been undervalued in research. The larger dimension of landscapes needs to be examined if we are to understand, and perhaps manage, the relations between forests, livelihoods and conservation. This is the basic idea of the landscape approach, which is a further development of the ecosystem approach which became popular in the mid 2000s.



In the Millennium Ecosystem Assessment, researchers demonstrated that livelihoods and ecosystems are intricately linked, and that a further deterioration of ecosystems will affect the ecosystem services they provide leading to a decrease in livelihood opportunities and human wellbeing. In the past, many projects have attempted to reconcile biodiversity conservation with the development of sustainable livelihoods, under the assumption that there are development pathways that support both conservation of ecosystem services and poverty alleviation. The success of projects based on these approaches – Integrated Conservation and Development Programmes, Integrated Natural Resources Management, and Community-Based Natural Resources Management – has been limited. Some think that the landscape concept would provide a better framework to design methods and management tools.

Importance of scale

The landscape approach is proposed as a tool for multi-stakeholder planning of conservation and development. It starts by recognising that human livelihoods operate in landscapes that encompass more than one ecosystem. The landscape concept recognises that people and the ecosystems they depend on are part of the same social ecological system. A landscape has different sociocultural, economic, political and institutional aspects and boundaries. Scale is important. Issues affecting the management of natural resources are

frequently not site specific, but occur at a variety of spatial scales (usually not at a local level). Apart from spatial scale, the institutional scale must be taken into account to address the different layers of governance and decision making that affect forests and livelihoods at specific localities in the landscape. Addressing these issues requires analysis and action by multiple stakeholders at different scales and locations. This makes the landscape concept potentially suitable for the active involvement and understanding of different stakeholders in conservation and development programmes and processes.

Shifts in thinking

During 2008, Tropenbos International commissioned a study to provide a better underpinning for the landscape approach and presented the outline of a research agenda, based on an analysis of the current literature and debate on the subject. The study by A. Henkemans, *Towards an integrated approach for conservation and livelihood development in forest landscapes*, will be published in 2009. It highlights three important shifts in thinking leading to the landscape approach:

1. The relation between conservation and development. Earlier approaches were essentially dualistic, separating

people and livelihoods from nature and biodiversity when it came to practical application. In the landscape approach, the relation between conservation and development shifts from a natural resource or productivity focus to a people-centred focus.

2. The integration of research and practice. The landscape approach makes use (among other things) of process-based action research and experimentation, and adaptive and iterative processes of social and experiential learning involving all stakeholders, including local people, development planners and scientists.
3. The role of scientists and local people as stakeholders. The role of a researcher shifts from an objective, observing actor, external to the process and the system, to an actor who, with local people, development planners and others, is a participant and stakeholder in an adaptive research and planning process. This is a significant development for TBI as a research organisation, not least because TBI is at the same time a global and local stakeholder.

Whether or not the landscape approach is a suitable planning tool is a question addressed by TBI’s partner Wageningen

Box 2. The process of the landscape approach

1. Problem identification – identification of drivers of change and understanding the biophysical and socioeconomic dimensions of the selected landscape
2. Identification of stakeholders and the institutional dimension
3. Development of an understanding of landscape functions and values, as perceived by the different actors
4. Development of scenarios representing trade-offs and choices
5. Multi-stakeholder negotiation leading to agreement on a landscape plan addressing the problems identified
6. Implementation

Based on Rozemeijer (2008) A landscape approach guiding a multiple stakeholder process to find alternatives for illegal chainsaw lumbering in Ghana – enhanced effectiveness or more confusion?



International, with whom TBI collaborates in the EU chainsaw milling project and the ‘Illegal or Incompatible?’ project. A number of steps are proposed to operationalise the concept (see box 2). Knowledge, information and informed debate between stakeholders are key elements in this process.

Participant and observer

An organisation like TBI faces the dilemma of choosing between being a part of the approach, as a stakeholder, or examining the system – the landscape and the landscape approach – as an outsider. Participating as a researcher in the system has the advantage of contributing to actual change on the ground. It requires a clear presence and mandate in a given landscape, a very good local knowledge base, and the ability to remain engaged for a long period. In practice, to play this role TBI must be

part of a consortium in a development-oriented project. Explicit applications of the landscape approach are rare, but participation in projects addressing change through a multi-stakeholder dialogue at a landscape scale will help TBI to develop and experiment with the concept. Examples include the projects on chainsaw milling and illegal logging in Ghana and Guyana, and TBI’s participation in the Pro-Poor Forestry Programme in Viet Nam and the Forest Partnership Programme in Indonesia.

However, it should be acknowledged that TBI is a relatively small organisation and has limited influence for solving the problems presented by landscapes. It may be more useful to study the approach itself and the way actors and forests ‘behave’. Although this would not directly contribute to actual landscape level projects, it would facilitate learning about the key elements of the approach. Many projects in the TBI programme address in one way or another the general issues related to the landscape approach.

Examples of ongoing projects addressing research interests related to the first three steps in the box 2 are listed below.

Research topic	Projects
The properties and functions of forested landscapes and of human livelihoods in them	Multidisciplinary landscape assessment projects in Viet Nam, Indonesia and Suriname
The ability of forested landscapes to provide services to humans (quantification, monitoring) and the perception of value from the stakeholder perspective (valuation)	Four related studies in Viet Nam on the functions of forest lands allocated to local communities for improving livelihoods and protecting biodiversity
The relation between the ability of forests to provide multiple services and service delivery, and the trade-offs involved (specifically between pro-poor forest management and biodiversity conservation)	Study on the economic significance of NTFP in Indonesia
The relation between service provision and human wellbeing (poverty); how can forest goods and services help to alleviate poverty	

Examples of ongoing projects addressing research interests related to step 4 in the box 2 are listed below.

Research topic	Projects
The institutional and economic instruments that are used, or can be designed, to improve service delivery of forests for the benefit of poor people, and the impacts of these instruments (governance, trade, institutional arrangements) on poverty and forest services	Studies on the drivers of chainsaw milling, the impact of Voluntary Partnership Agreements on local livelihoods (Ghana, Guyana), and on mechanisms to improve the financing of sustainable forest management in Latin America and Suriname
Interaction and trade-offs between different policy and management solutions (choice between contrasting policies)	Study on the management of chainsaw milling by different countries
Development of spatial scenarios, including local perceptions of landscape values	Studies on the integration of local land use systems in spatial planning mechanisms and in protected area management in Indonesia and Viet Nam Local resource use planning in <i>resguardos</i> (indigenous reserves) in Colombia

The development-oriented projects in which TBI participates also address step 5 in the box, an example being the multi-stakeholder dialogue processes organised in the framework of the chainsaw milling study in Ghana and Guyana.

In addition to the research projects, TBI encourages staff at partner institutes to learn about the basic concepts and implications of the landscape approach by offering scholarships for courses. During 2007 and 2008, two staff members from partner institutions in Ghana, Viet Nam and Indonesia each participated in Wageningen International courses on this topic.

TBI also participates in meetings and discussions in the Global Partnership on Forest Landscape Restoration (FLR) network as the Netherlands contact point for tropical forests. FLR is an approach to managing the dynamic and often complex interactions between the people, natural resources and land uses that comprise a landscape, in a way that is reminiscent of the landscape approach.



Chainsaw milling and local timber markets

During the 1980s, the rapid decline of the world's tropical rainforests was a growing concern and much tropical deforestation was attributed to the international trade in tropical timber. Since then the international community has given much attention to the legalization and certification of the international timber trade. These measures have stimulated better management, but the desired effect, the conservation of tropical forests, has not been achieved. Deforestation is a result of complex socioeconomic, cultural and political processes. Its underlying causes include an unequal distribution of economic and political power, population growth, deficient market systems and bad governance. The direct causes include the extension of agricultural practices, unsustainable forestry activities and mining.

While the considerable efforts made by the international community for the legalisation and certification of international timber markets are encouraging, TBI's experience is that a focus on international timber flows is not enough. Attention should also be paid to local timber production and



consumption in tropical countries – in volume far more important than the international tropical timber trade. Besides local demand for timber, the supply to these markets is influenced by various factors, such as the regulatory framework, the degree of law enforcement, access to raw materials and the financing mechanisms within the whole commodity chain. The key drivers of these markets and their impacts on forest resources and the people that depend on them are hard to identify and describe.

To fill this knowledge gap, TBI launched a project on chainsaw milling (more information on this can be found in the article on the EU chainsaw milling project on page 59 of this report). We are working with all the stakeholders to find a sustainable solution to the problems associated with timber production for the local markets, for which the chainsaw milling or lumbering technique is frequently employed. In this technique the trees are felled and cut into boards at stump using chainsaws. Chainsaw milling is used in many developing countries to supply local timber markets with cheap wood, but it is widely perceived, also by decision-makers, to be a very wasteful practice, producing low quality timber and causing harm to the environment.

Impacts and benefits

The impacts of chainsaw milling on the environment are mixed. On the positive side, the light equipment used causes much less logging damage than

the heavy equipment used in regular logging operations (no skidding trails are needed and the waste wood is left on the ground). But uncontrolled harvesting can lead to depletion of timber species and other adverse effects, such as pollution. Chainsaw milling adds to the competition for scarce forest resources, leading to conflicts between stakeholders, such as the state (through its implementing agencies), the sawmill industry, local land owners and the chainsaw millers. The ease with which chainsaws can be transported makes it difficult for the authorities to control the activity. Moreover, the illegality of chainsaw milling makes it difficult to assess its impacts with any precision and also means a loss of timber revenues to the state.

Nevertheless, chainsaw milling offers socioeconomic benefits to local people by providing cheap access to lumber and providing livelihood opportunities for many local people in areas where employment is scarce. It is assumed that benefits generated by chainsaw milling are distributed more widely within communities than those provided by the established logging sector. However, the trading, financing, transportation and marketing processes in the chainsaw

timber supply chain, from stump to market, can be exploitative in nature. Moreover, working with chainsaws is dangerous and the risk of injury is high. Using the proper tools and training reduces this risk, while improving the recovery rate and the quality of the timber.

TBI is working on chainsaw milling in two countries, Ghana and Guyana. These countries take different approaches to chainsaw milling practices. In Ghana chainsaw milling is illegal, while in Guyana it has been regulated and is promoted as a way for local communities to improve their livelihoods. Despite these differences, in both countries about 80% of the local market is supplied by chainsaw millers. Chainsaw milling therefore clearly caters to a need and is responsible for the processing of significant and increasing amounts of timber in the tropics, inside and outside forests, both legally and illegally. The challenge now is to control this practice in a way that addresses the adverse impacts, while sustaining and possibly increasing the socioeconomic benefits. By meeting this challenge, TBI will be able to contribute to the conservation and better management of tropical forests.



Institutional strengthening and capacity building

Capacity building has always been an essential part of TBI's work. In recent years, TBI's focus on capacity building has been gradually shifting from training individuals towards strengthening our Southern partner's institutions. Besides training staff and exposing them to other working and teaching methods, TBI aims to better equip its partner organisations through access to more and better information and improved networking and collaboration with international partners. Some of our partner organisations have requested TBI's support to respond better to the needs of the forest sector, which implies reorientation and institutional changes.

TBI's institutional strengthening activities focus on a limited number of

national partner organisations. So far, our strongest affiliations have been with universities and research institutes that play a key role in the forest sector. Other target organisations (e.g. other universities and research centres, NGOs, government departments and companies) are dealt with on an ad hoc basis, for example through specific training or provision of information to meet their requirements.

TBI uses its projects to strengthen the links between governmental, private sector and research organisations at national level. Our joint efforts aim to improve collaboration on national priorities, taking optimum advantage of sound information and knowledgeable staff.

Box 3. Major national partners of TBI in the field of institutional strengthening

Colombia	National University, Amazon (UNAL) National Training Service (SENA)
Suriname	Anton de Kom University (AdeK)
Ghana	College of Agriculture and Natural Resources, Kwame Nkrumah University of Science and Technology (CANR/ KNUST) Forestry Research Institute of Ghana (FORIG)
Indonesia	Forestry Research and Development Agency (FORDA)
Viet Nam	Hue University of Agriculture and Forestry (HUAF)

Nuffic NPT programme

TBI is the coordinator of four projects funded under the NPT programme run by Nuffic (Netherlands Organization for International Cooperation in Higher Education), two in Ghana and two in Colombia. The NPT is a programme of South–North cooperation which helps developing countries to strengthen their institutional capacity for providing post-

secondary education and training. NPT projects offer an excellent opportunity to realise TBI's institutional strengthening goals. Each NPT project is directed at one of TBI's key partners and addresses key issues for TBI, including recognition of the complexity of forest related issues, responding to the needs of stakeholders, the use of traditional knowledge and the strong involvement of stakeholders.



Each project puts considerable emphasis on the institutional embedding of these issues in the partner organisation.

In Ghana, the projects with the KNUST College of Agriculture and Natural Resources (CANR) will enhance the ability of current and future professionals to manage complex environmental

problems. The first project, which focused on building staff capacity, ended in 2008 and a follow-up project has started. The emphasis now is on embedding Integrated Natural Resource Management (INRM) approaches within the academic programmes of CANR. Specific attention is given to strongly involving stakeholders, especially in the design of learning programmes, but also as a general institutional strategy. The project activities are deeply interwoven with other collaborative projects between TBI Ghana and KNUST. Collaboration with the Dutch partners involved in the NPT project is very effective, leading to joint projects and additional training as spin-offs.

Box 4. Final results of NPT-Ghana first phase

- 25 CANR staff members have acquired the skills to apply and use INRM principles and approaches.
- 34 professionals participated in two specially designed short courses, one on Adaptive Management and one on Governance in Natural Resources Management.
- Five programmes were run, exposing 90 Dutch and Ghanaian students to INRM principles.
- Training material was developed on how to deal with complex environmental issues and the INRM approaches.
- The first steps were taken to actively involve stakeholders in CANR activities.

In Colombia, TBI took over the coordination of the NPT project with the National Training Service (SENA), which offers integrated vocational training on a wide range of topics. The aim is to strengthen the capacity of SENNA to adapt its activities to the needs of indigenous communities and afro-Colombians in a way that respects the environmental, cultural and organisational contexts of these groups. The project will help SENNA to develop strategies for reaching local communities and making use of local instructors. It also offers an excellent opportunity to make TBI Colombia's

expertise on traditional knowledge for environmental management and on collaboration with indigenous people available across the country. The second





NPT project in Colombia is helping the National University in Leticia to become a knowledge centre on the Colombian Amazon by training staff and upgrading knowledge resources. The university is also strengthening collaboration with national and international partners.

All four NPT projects have a major forest-related component. They offer a tremendous opportunity to improve forest policy and management by raising staff capacity and making higher education institutes more effective in delivering well-equipped graduates.

Institutional strengthening

TBI Ghana engaged external consultants to assist the Forestry Research Institute of Ghana (FORIG) with its strategic reorientation. FORIG will increase dialogue with local stakeholders and link its research output more closely to relevant policies and to national and international forest priorities.

In Indonesia, TBI entered into an agreement with the Forestry Research and Development Agency (FORDA) to strengthen the capacity of this national research institute. Four PhD scholarships are available for topics relevant to FORDA's strategy and to TBI.

In Suriname and Viet Nam, TBI works closely with the major universities. In Viet Nam, TBI collaborates with the Hue University of Agriculture and Forestry (HUAF). The priorities are joint research activities, the integration of socioeconomic tools and approaches into the forestry courses, and providing a multicultural learning environment for staff, especially through collaborative research efforts and upgrading staff skills (PhD and specific courses). In Suriname, TBI works with the Anton de Kom University (AdeKUS). In 2008 a member of the university's staff paid an orientation visit to the Netherlands as a first step in the renewal of the forestry curriculum.

Skilled staff

Skilled staff is one of the pillars of institutional development, along with adequate information, networking and collaboration with international partner organisations. TBI's approach to capacity building is to train staff and students of TBI's partner organisations.

In 2008, 21 PhD students and 18 MSc students were involved in or associated with the TBI country programmes. Some BSc students also participated in the TBI programme. International students enthusiastically teamed up



with research projects and/or national students. Unfortunately, the TBI Huygens programme, jointly financed by Nuffic and TBI, has come to an end. This programme, which was operational from the early 1990s, offered 3–12 month fellowships for training in the Netherlands. The programme was very successful and since mid 2004 it

provided training opportunities to over 60 staff members and students at our partner institutions. The fellowships were used for a variety of purposes, including training in communication, preparation of PhD proposals, specific additional training for PhD researchers, mid-career training, data analysis and joint writing of scientific articles.

Box 5. Individual capacity building

The total number of ongoing MSc and PhD southern students associated with the TBI programme is slightly increasing (33, up from 26 in 2007).

	2004	2005	2006	2007	2008
PhD	19	21	13	11	19
MSc	50	52	25	15	14

The PhD studies are being done at the universities of Utrecht, Wageningen, Leiden, Amsterdam, Tilburg, ITC, University of Kent and one at KNUST in Ghana. Eight of the PhD's are in social sciences, economy or law, while the rest is in biology or forestry.





Where do we work?



Suriname

TBI programme since: 2003

Presence in: Carolina District

Ghana

TBI programme since: 2001

Presence in: Southwestern Goaso region; Brong Ahafo Region; Ashanti region; Eastern Region and Central Region

Colombia

TBI programme since: 1987

Presence in: Middle Caquetá Region and Amacayacú national park and surrounding areas

Congo Basin

TBI former programme in Cameroon from 1994 until 2002

TBI presence in Congo Basin since: 2008

Bolivia

Programa Manejo de Bosques de la Amazonia Boliviana - PROMAB-

Viet Nam

TBI programme since: 2002

Presence in: Buffer zone of the Bach Ma national park and Thua Thien Hue Province

Guyana

Chainsaw milling project since: 2007

Presence in: Ituni, Orealla/Siparuta and Annai/Surama

Indonesia

TBI programme since: 1987

Presence in: Paser district in East Kalimantan; Central, South and East Kalimantan, Papua and Riau provinces.



Cameroon and the Congo Basin

Tropenbos International has received a grant from the Dutch Ministry of Foreign Affairs to start a research and capacity building programme in the Congo Basin. The new programme started in early 2008 in Cameroon. This country is not new to TBI, from 1994 to 2002 TBI already conducted a research and capacity building programme in this country for the sustainable management of the country's rich forest resources.

The research activities will concentrate on the following topics:

- the domestic timber market in relation to community/communal forests;
- determining sustainable timber production and carbon storage in the forests in southern Cameroon;
- the impact of large-scale infrastructure developments on forests and livelihoods;

- financing mechanisms for the sustainable management of forests.

The TBI Congo Basin Programme is holding discussions on establishing a partnership with the GEF sponsored TRIDOM project, which started in late 2008 and is to last until 2015. This project seeks to conserve transboundary biodiversity in the Dja–Odzala–Minkebe (TRIDOM) interzone in Gabon, the Republic of Congo and Cameroon. The project area contains nine protected areas: in Gabon the Minkebe NP, Ivindo NP and Mwagne NP; in Congo the Odzala-Kokoua NP and Lossi Reserve; in Cameroon the Dja NP, Nki NP, Boumba-Bek NP and Mengame Gorilla Reserve. The globally important biodiversity in these protected areas and their interzones is under severe threat from commercial logging and mining. The logging concession access roads have also opened up these areas to large-scale commercial hunting for wild meat and

ivory. The TBI Congo Basin Programme is developing plans to assist the TRIDOM project by investigating how best to mitigate these threats, especially those encouraged by large-scale infrastructure developments like mining and rail and road construction, and by finding sustainable financing mechanisms to fund the conservation objectives.

The TBI Congo Basin Programme is preparing to start activities in the Democratic Republic of Congo (DRC), a visit to the country will be conducted to meet the most important stakeholders in the forest sector, especially potential partners in forestry education and research. The research agenda should be finalised after a priority-setting exercise with experts later this year.





Colombia

During 2008 TBI Colombia continued work on participatory methodologies for strengthening natural resource management and generating information for use in political negotiations in the fields of spatial planning, climate change, co-management, and forest products and trade. The main emphasis of this work has been on activities that promote the exchange of experiences. Sessions were organised with the support and participation of indigenous organisations, governmental environmental agencies and non-governmental organisations, such as Ecofondo, National Parks and Patrimonio Natural. TBI Colombia also planned international experience - exchange activities on participatory and community research with the Andean Community of Nations (CAN). Over the next few years joint actions with WWF and National Parks, also focusing on participatory research methodologies, will be developed in

the trinational region (Peru, Ecuador and Colombia) of the Putumayo River. Participation in major projects like the NPT projects with the National University in Leticia and the National Learning Service (SENA) has been important for defining interdisciplinary approaches to capacity and knowledge generation.

Knowledge

TBI Colombia continues to support both local and academic research and promote knowledge dialogue and an interdisciplinary approach to research. Within our spatial planning theme, the Colombia programme has been working closely with the Regional Indigenous Council for the Mid-Amazonas (CRIMA), providing small grants for integrated, interdisciplinary and participatory research to inform political negotiations.

Two anthropology MSc students in the Amacayacu area provided information on the role of the local economy in the



well-being of indigenous people. This socioeconomic information is related to the co-management theme and the biodiversity and trade theme.

Wildlife management continues to be a subject of debate in indigenous territories and has long been part of TBI Colombia's work. TBI Colombia support the development of knowledge in this area through local research grants and academic grants. A PhD student from the University of Kent in Canterbury (UK) is investigating the use of natural licks by wild fauna in an interdisciplinary and participatory approach that integrates both indigenous and academic knowledge.

Local research grants have been given to young indigenous leaders, elders and women for a variety of projects to document their knowledge on agricultural systems for local educational purposes. Some leaders in CRIMA also received assistance from TBI Colombia in compiling documents to facilitate political negotiations on their local development plans or "planes de vida." These plans are the equivalent to the land use or development plans for the administrative regions of the country. They should clearly state the goals

of indigenous people within their territories as well as the challenges they face and their livelihood expectations. By presenting indigenous people's views on education, health and natural resource management, they will make negotiations with government bodies easier and help to secure government funding.

Capacity

At a more local level, the work of indigenous leaders is being used by their communities to improve decision making on natural resources and hunting, fishing and agricultural activities. Working with Patrimonio Natural, TBI Colombia organised a series of meetings in which indigenous people shared their experiences of spatial planning issues, income generation alternatives, education and indigenous organisational processes. The participating communities came from the Cauca department (Andes region), Indi Wasi National Park (Putumayo/Amazon region), Puinawai Natural Reserve (frontier region with Venezuela) and the Middle Cauqueta Region. Representatives from each region described how their communities have tackled each of these subjects.





Geographical information systems for local use have become a fundamental tool in the planning and management of natural resources. In 2008 two workshops were held on this subject in the Caquetá region. The first of these workshops, organised with Patrimonio Natural, took place in La Pedrera community on the lower Caquetá River, with 25 participants (20 indigenous people and 5 representatives from the National Parks, Conservation International and the Gaia Foundation). The main aim was to instruct the participants in the basic elements of cartography, including the use of a basic GPS, and to improve the analysis of information. The second workshop was held at the request of two young leaders of the Aduche community, who are mapping their communities' sacred areas and the areas they use for hunting, fishing and agriculture. The results will be used in drawing up a natural resources management plan for approval by indigenous organisations and authorities. This management plan is one of the first in the Araracuara area and will serve as example for the region.

Organisations

In 2008, TBI Colombia joined the SENA-NPT capacity building programme

to strengthen SENA's ability to work with ethnic and Afro-Colombian groups in the Pacific Region (Chocó biogeographic area), Amazon Region and Casanare Region (Guiana Shield geographic region). SENA's instructors will be provided with the tools and capacities they need to work with local communities, and to develop environmental education and capacity building programmes that match the characteristics, needs and potentials of the ethnic groups of each region. SENA will also formulate its own capacity building policy for indigenous and Afro-Colombian people that reflect the relevant environmental, cultural and organisational aspects of each region.

At the National University in Leticia, the NPT-Col 100 project PhD candidates are making progress with their field work and continue to teach in the MSc and BSc programmes. During the second semester of 2008, the university held a seminar called '*Developing a knowledge dialogue for the Amazon Region*'. The topics covered were the use of local research in natural resource management plans and the role of traditional knowledge in the management of nature and food security issues in indigenous communities of the Amazon.





The NPT projects with SENA and the National University in Leticia have consolidated institutional relationships at the national and international levels for each of the organisations.

Government institutions, non-governmental organisations, national and local authorities and local communities met to establish an institutional platform for the management of fishing resources in the Caquetá region. The main objective of this meeting was to make progress with the establishment of a regional agreement for the sustainable use and management of river resources in the lower Caquetá River, and mechanisms to implement it.

Dialogue

The TBI Colombia programme continued to search for ways of participating in policy debates through the National Environmental Forum (NEF). The programme helped to organise the forum *'Twenty years of indigenous resguardos in Colombia: a conservation policy with indigenous people'*. The main objectives of the forum were:

- to analyse the achievements and challenges of government policy related to indigenous resguardos;

- to compare the challenges and potentials of indigenous resguardos and protected areas in the Amazon region with their counterparts (indigenous lands and conservation units) in Brazil;
- to explore the possible impacts of global warming in the Amazon basin and the potential consequences for conservation in the region.

During 2008 the NEF also organised a series of events on biofuels to improve understanding of the social and environmental implications for Afro-Colombian and indigenous communities of developing agro-industrial activities in Colombia. TBI's president Rudy Rabbinge discussed his presentation on *'Biofuels: utopia or dystopia'* with Arturo Infante, coordinator of the Intersector Committee for the Sustainable Development of Biofuels in Colombia.

Several exhibitions were held to present indigenous knowledge to the general public and encourage interaction between indigenous and western knowledge. TBI Colombia will continue to promote recognition of the indigenous people of the Amazon and their knowledge by holding major exhibitions at the National Museum, the Ministry of Culture and the Luis Angel Arango Public



Library. The programme's experience with indigenous research and local monitoring processes will continue to be disseminated, not only within Colombia but also internationally.

Linkage

TBI Colombia is working with Avina to build a Regional Amazon Alliance (ARA) of five Amazon countries (Brazil, Peru, Ecuador, Bolivia and Colombia). A strategic framework is being defined and actions identified to tackle the urgent problems facing the Amazon region, including biodiversity conservation and climate change. Avina's mission is to contribute to sustainable development in Latin America by assembling trustworthy alliances between social and business leaders and facilitating the construction of joint work agendas.

In September 2008, at the invitation of the Interamerican Development Bank (IDB), TBI Colombia participated in a workshop

on '*Infrastructure in the Amazon, meeting for the orientation of actions in the region*', which was held in Rio de Janeiro. Experts, technicians and the members of the IDB debated the South American Regional Infrastructure Integration Initiative (IIRSA) with the aim of constructing an agenda on mechanisms to maximise the positive effects of infrastructure and minimise the adverse impacts. The main topics of the meeting were infrastructure and the Amazon region, protection and governability, sustainable planning of infrastructure and innovative financing mechanisms. The IIRSA initiative is a forum for the promotion of dialogue between authorities responsible for infrastructure, transportation, energy and communication in the twelve South American countries. Its objective is to promote a regional vision for infrastructure development that will lead to the physical integration between the countries within an equitable and sustainable development framework.



A Research Agenda that contributes to the consolidation of co-management agreements in Amacayacu National Park

For almost two decades, national protected areas were managed by enforcing strict regulations and prohibitions. The new Political Constitution of 1991 changed this situation by creating a Ministry of the Environment and designing new policies for empowering ethnic minorities, especially indigenous people. The National System of Natural Parks (UAESPNN) promoted a social participation policy under the title 'Parks with People', which promotes the joint management of natural resources by the protected areas administrations and the people that live in and around these areas.

The parks of the Amazon region are in the spotlight regarding the development of special management agreements with indigenous communities, since 7 of the 15 protected areas in the Amazon overlap with resguardos. Before management agreements can be agreed with local indigenous people it is necessary to agree quotas for the use of natural resources, for which baseline information on the function and use of these resources is essential. Management agreements and local development plans for indigenous people are closely linked and both require information on which to base decisions. Information or research priorities therefore need to be established and set down in a Research Plan.

As one of the first in the country, the Amacayacu National Park (NP) started with the elaboration of a research

agenda and workplan in collaboration with TBI Colombia. In a workshop held in October 2006 it was clear to all participants that the research should deliver practical information, including local or indigenous research. For more than a decade, TBI Colombia has been developing research models appropriate to local circumstances without excluding the regional, national and international contexts. Several indigenous families from the Middle Caquetá took part in this initiative by gathering information on their use of natural resources, specifically about fishing, hunting and cultivating crops. This information has been useful in informing management decisions, such as banning fishing in certain places and at certain times of the year.

TBI Colombia has redefined the research effort. Local indigenous research now not only complements academic research (and vice versa), but also receives wider recognition as a significant source of knowledge about forests and a valuable input to local policy making. TBI Colombia's relationship with Amacayacu NP began at the end of 2001. Since then, TBI Colombia has supported the development of more than 60 research



projects (mostly by undergraduate students). These make up more than half of all the research projects carried out in the protected area since its creation in 1975, making it one of the national parks best studied.

Against this background, the October 2006 workshop explored how a Research Plan can become a tool for improving the management of a protected area that overlaps indigenous territories, such as Amacayacu NP, while at the same time improving local livelihoods. TBI

Colombia and the national park drew up a proposal for the elaboration of a Research agenda and workplan that addresses the needs of the protected area as well as the livelihood needs of the local communities. In 2008, with support from Alcoa Foundation's Sustainability Fellowship, TBI Colombia visited the National Park frequently and held regular meetings with the communities in and around the protected area. The main activities carried out for the preparation of Amacayacu NP's Research Plan are listed below.

Activities	Outputs
Gathering the perceptions of key actors	<ul style="list-style-type: none"> • Identification of the key actors' main (research-related) interests and expectations • Characterisation of local livelihood situations, needs and problems • Definition of roles for the main participants in the development of research
Collection and analysis of documents (formal and informal)	<ul style="list-style-type: none"> • Comparison between research lines defined for other protected areas and the ones defined for Amacayacu NP • Elaboration of a preliminary protocol for the development of research, based on the analysis of the research process in the park • Assembling a database of existing documents for each of the defined topics
Assembly of a guideline document	<ul style="list-style-type: none"> • Definition of research topics based on questions and concerns from the living and working experience of the National Park staff • Identification of partners that can contribute in solving the problems identified for each topic • Construction of a follow-up format for research proposals and projects • Organisation of ideas and activities in a document (Research Plan draft)
Dialogue and dissemination	<ul style="list-style-type: none"> • Presentation of progress development to representatives from universities, National Parks headquarters and research institutes • Production of a video of local people's daily worries and needs

The Research Plan has enabled the park to organise and plan the research effort and shape proposals on how to measure changes, collect information and track inputs, outputs and processes. Now that the team has a more consistent position on research, they will begin to discuss and draw up a work plan with the communities. Preparation of the Research Plan also gave the National Park

administration the opportunity to discuss future joint actions with other institutions working in the region. The Research Plan will also help local communities to find ways to meet some of their most relevant needs. Already some local people have started to organise their ideas to obtain assistance and develop activities and projects.

Although Amacayacu NP's Research Plan has been compiled in a non-traditional way, the National Parks head office believes the prospects for carrying it out are good and has made a commitment to explore opportunities for funding. However, both local staff and National Parks head office will need to strengthen the link between management agreements (Special

Management Regime) and the Research Plan if they truly want to establish sound co-management agreements. With research ideas and priorities listed in a plan, Amacayacu NP feels ready to take the next step – implementation of the plan.





Ghana

During 2008 TBI Ghana strengthened its role in the Voluntary Partnership Agreement (VPA) in Ghana. The programme represented civil society on the VPA steering committee by chairing a working group that examined the challenges of regulating the supply of legal timber to the domestic market. The programme also played a role in the Chatham House international update and stakeholder consultation on forest governance, logging and forest law enforcement. Additionally, TBI Ghana hosted several meetings to inform communities and civil society organisations about the contents and potential implications of the VPA. TBI Ghana participated in a team of consultants led by the International Institute for Environment and Development (IIED) to examine the potential impacts of the VPA on the informal forestry and wood use subsector. TBI Ghana also made a presentation on *Forest Governance in Ghana: the case of illegal chainsaw*

milling at a Dutch Ministry of Foreign Affairs Aladdin (Association for Law and Administration in Developing and Transition Countries) lecture event.

Knowledge

Following a gap analysis of the chainsaw situation in Ghana for the EU chainsaw project, the Forestry Research Institute of Ghana (FORIG) and TBI Ghana partners carried out extensive research to fill the knowledge gaps identified in 2007. The research examined the evolution of policy and the structure of the ChainSaw Milling (CSM) enterprise, compared investments, employment and recovery rates in CSM and other improved milling techniques, identified the drivers of chainsaw milling, reviewed the consistency of policy and the legal framework, and assessed the social, economic and environmental impacts of CSM. The research identified alarming situations regarding chainsaw milling activities and the extent of chainsaw lumbering in the eight project sites.



Fieldwork for the *'Governance of timber trees in Ghana'* project, which is carried out in collaboration with the Danish Centre for Forest, Landscape and Planning, was completed. Preliminary findings were presented for validation to the scientific community and to some civil society organisations and policy makers. One study of the options for managing trees on farms recommended that sustainable management of economic species in on-farm areas must focus on the first five years of farm growth in order to be able to retain as many recruits as possible. It also recommended the need to reduce the removal of mature species on farms.

Two new MSc studies started under the supervision of Freiburg University, Germany. One examines the potential of on-farm trees in helping to reduce rural poverty in Ghana. The other examines the roles and responsibilities of the different stakeholders in managing trees outside the permanent forest estates. These outputs are expected to contribute to establishing a more scientific basis for sharing forest revenues between the different stakeholders in Ghana.

Work began on two PhD projects with the University of Amsterdam. The first addresses forest-related livelihood conflicts and innovative processes; the second will explore institutional and legal changes for improving forest dependent livelihoods.

Capacity and organisations

Besides the extensive support given to FORIG staff to upgrade their skills through short courses and graduate programmes, TBI Ghana facilitated institutional support to FORIG through a consultancy service. This was aimed at repositioning FORIG to improve its capacity to deliver on its mandate. As mentioned in the report on the 'Institutional strengthening and capacity building' approach earlier in this report, a capacity building project to help the College of Agriculture and Natural Resources (CANR) of Kwame Nkrumah University of Science and Technology (KNUST) to introduce Integrated Natural Resources Management (INRM) approaches into the college curriculum was successfully completed.

TBI Ghana continued to collaborate with the college in running the MSc programme GIS Naturem, with TBI supporting two of the candidates. As part of the EU chainsaw milling project (page 59 of this report), 16 people were



trained in facilitation and community entry skills in a two-week training programme organised by Wageningen International (part of Wageningen University and Research Centre). The participants included three Guyanese and nine members of the Ghana Forestry Commission.

Dialogue and linkage

Under the EU chainsaw project, stakeholder sensitisation meetings were held in all eight project districts in Ghana. TBI Ghana continued to facilitate the Network of Dutch Supported Initiatives in the Ghana Forestry Sector. As part of the activities of the network, TBI Ghana assisted the Dutch Embassy and the Forestry Commission in organising a guided tour of the informal timber market for the Dutch Minister for Development Cooperation during a visit to Ghana. TBI Ghana hosted a radio discussion on the Voluntary Partnership Agreement.

Although Small and Medium-sized Forest Enterprises (SMFEs) generate about 80% of all income to rural livelihoods, they are not adequately catered for by policies. They are also weakly linked to

service providers and the markets, if at all. As part of an international project to develop this necessary 'connectedness', TBI Ghana was selected as a hub in Ghana for carrying out a diagnostic study on SMFEs in Ghana. A trip was organised to Suriname to share some of the Ghanaian experiences with the Surinamese programme, highlighting the role TBI Ghana has played in the EU FLEGT processes in Ghana.

A high point of the programme's activities came when key officers had the opportunity to present the achievements of the previous phase and the focus and content of the current phase of the programme to the Parliamentary Select Committee for Lands and Forestry. This was to provide a justification for the renewal of the TBI Ghana agreement for the second phase of the programme. Officers of the programme offered support to the National Forestry Forum (NFF), under the National Forest Programme, and joined the NFF executives in a week-long training course on how to ensure effective participation in the NFF processes.





Indonesia

TBI has been working in Indonesia since 1987. In 1993, the programme entered into a formal Memorandum of Understanding with the Government of Indonesia for a Kalimantan programme. In late 2007 this was renewed for a further five years, widening the scope to an Indonesia programme. Run in partnership with local, provincial and national governments, NGOs, universities, research institutes and interested private companies, TBI Indonesia is investigating mechanisms for land use and collaborative management, respecting traditional rights, promoting and financing conservation, and developing alternative livelihoods.

TBI Indonesia gives sound information and advice to the Government of Indonesia on formulating and implementing policies for improving the sustainable management of protected areas under decentralised governance. Indonesia has more than 55 million

hectares of protected areas, designated for the purpose of conservation and providing environmental, social and cultural services. The largest component of the protected areas are the protection forests (31.6 million hectares), followed by national parks (23.3 million hectares). While national parks have received greater attention by central government, protection forests have become a no-man's-land. Although theoretically managed by local government, doing nothing has so far been considered the only feasible management approach. Protection forests are the main focus of TBI Indonesia's work.

During 2008, TBI Indonesia concentrated on its core project activities in knowledge generation, capacity building and dialogue. The implementation of a number of new associated projects funded by partners and external sources has started, mostly in the second half of 2008.



Knowledge

TBI Indonesia promotes the implementation of the landscape-based approach to natural resources, in particular to forest management. In 2008 TBI Indonesia, as part of the HCV (High Conservation Value) Consortium, finished revising the Indonesian HCV Toolkit, *Identification Guideline for High Conservation Value Areas in Indonesia*. The Toolkit provides a standard protocol for HCV assessment in Indonesia that ensures quality, transparency and integrity. It explains the required steps for HCV assessment, defines the responsibilities and rights of the parties involved, and provides guidance on the collection of data and information in a time-efficient way while maintaining certain minimum quality standards. The Toolkit is a generic document applicable in many sectors, including conventional forest concessions, oil palm plantations and forest plantations, mining and other land uses. It is available in Bahasa Indonesian. An English edition is currently being prepared by Daemeter Consultants, one of the members of HCV Consortium.

As a follow up to this publication, the consortium has asked TBI to concentrate on the implementation of HCV forest assessment for industrial tree plantations (HTI), while WWF will concentrate on

oil palm plantations and The Nature Conservancy (TNC) on natural forest concessions. All members of the consortium are obliged to encourage the adoption of the Toolkit by the government.

Capacity

In 2008, TBI Indonesia and its main partner, the Forestry Research and Development Agency (FORDA) of the Ministry of Forestry, entered into a partnership with three universities in the Netherlands and four state universities in Indonesia to support PhD research projects within its capacity building programme. The PhD programme is designed to generate new knowledge for partners and the community at large, and to raise personal and organisational capacities at FORDA. The projects involve partners at Wageningen University, ITC Enschede, Leiden University, and four universities in Indonesia: Bogor Agricultural University – IPB, Mulawarman University – UNMUL, Gadjah Mada University – UGM, and Lambung Mangkurat University – UNLAM. Associated activities supporting the PhD programme are run in partnership not only with the selected universities, but with government institutions, local, national and international NGOs, research centres and interested private companies as well.





Four PhD candidates were selected from the pool of FORDA scientists from its centres across Indonesia to carry out the research, supported by TBI Indonesia staff. The four main research projects in this programme are:

1. Integrating traditional land use and land rights into spatial planning;
2. Integrating local land use systems in collaborative management of protected areas;
3. Financing conservation under decentralised governance of natural resources;
4. Forest community development: illegal activity, human rights or corporate social responsibility.

The first project addresses the conflicts arising from the lack of participation by local land users in land use decision making. Local, provincial and central government have so far lacked the capacity and time to fully implement the multi-stakeholder approach promoted by a number of NGOs. The project is examining ways to include local traditional land use into spatial planning processes.

The second project sets out to find the best way to involve local and indigenous people in protected areas management. A method will be designed to resolve

and prevent conflicts in protected areas through collaborative management, and guidelines for its implementation will be drawn up.

The third project addresses the need by local governments to identify alternative sources of income through payments for environmental services. The Reduced Emissions from Deforestation and Degradation (REDD) mechanism is now being discussed by central and local governments as a way of obtaining income from carbon credits. The researcher is investigating mechanisms for sharing benefits between central government, local government and communities, assembling a sound evidence base and learning lessons from other parts of the world to pass on to all stakeholders.

The fourth project responds to the recent government policy to make Corporate Social Responsibility (CSR) agreements mandatory for all companies dealing with natural resources management. Besides studying and documenting the process, a comparative study will be made of similar policies elsewhere in the world in relation to human rights and illegal activities. The possible use of CSR to address environmental problems will also be studied.





Besides these four research projects, TBI Indonesia held a series of training courses on Geographical Information Systems (GIS) for FORDA staff and provincial and district partners to improve their skills in spatial analysis. FORDA will embark on research into the use of GIS and remote sensing to monitor forests, in particular for the REDD mechanism. TBI Indonesia and FORDA have set up a clearing house and database centre for research information and data, both spatial and numerical. An integrated GIS laboratory for TBI and all four FORDA centres has been established at TBI Indonesia's Bogor office.

TBI Indonesia is working in partnership with a number of local and provincial governments, particularly in the Kalimantan, Papua and Riau provinces, to provide in-house technical training. In collaboration with CIFOR, Forest Watch Indonesia (FWI) and Regional Forest Planning Office in Papua (BPKH X), TBI Indonesia has provided basic training on GIS and remote sensing for forest agency staff in the province of Papua, under a project funded by CORDAID. This training examined the analysis of forest cover change to improve baseline information for future use, particularly for REDD.

TBI Indonesia will also work with other partners to strengthen their capacity on spatial analysis by developing clearing houses and GIS forums. Support will be given to provincial and district government authorities to establish spatial data centres to meet their needs for sharing data and information.

Dialogue and linkage

To promote greater integration of natural resource management in Indonesia, TBI Indonesia initiated the Consortium of Green Institutions and NGOs in Kalimantan, which in turn was the driving force behind the establishment of the National Forum of Agenda 21 Balikpapan. On 21 and 22 August 2008 the Forum held a workshop entitled '*Conservation Nationalism and Green Investment*' attended by natural resource management stakeholders in Indonesia from the government, the private sector, universities and NGOs. In cross-sectoral discussions on sustainable development green investment, strategies were defined for natural resource management in Indonesia. A proceedings volume in the Indonesian language has been produced in collaboration with the Balikpapan office of the Central Bank of Indonesia. The bank has shown strong interest in promoting green investment and has issued Central Bank Circular No. 9/6/2007 on improving



the quality of credit disbursement to all banking sectors in Indonesia. In the coming year TBI Indonesia expects Agenda 21 Balikpapan will receive further recognition and commitment from its partners.

To further the development of bioenergy as an alternative source of energy in Indonesia, TBI, the Royal Netherlands Academy of Arts and Sciences (KNAW) and the Indonesian Ministry of Research

and Technology (RISTEK) organised and hosted an international workshop and matchmaking event on the Agriculture Beyond Food (ABF) Programme. The many participants from universities, research organisations, NGOs and government institutions agreed on seven topic clusters/domains to be worked up into project proposals.



Financing conservation under decentralised governance of natural resources

In 2008 the Ministry of Home Affairs appointed a national Conservation District (CD) task force, which includes TBI as a member. The task force has formulated criteria and indicators for the establishment of conservation districts. The criteria have been tested in six districts in Kalimantan, Java, and Sumatra, and three of these districts have formally declared themselves a Conservation District. Although this status has not yet been recognised by the national government, payment for environmental services is providing opportunities to realise Conservation Districts in practice. The challenge is to make conservation of natural resources in CDs the foundation for

sustainable development in these areas, and create an enabling administrative and financial framework that supports implementation.

TBI Indonesia, FORDA, Bogor Agriculture University (IPB) and Wageningen University (WUR) have been supporting the Indonesian government in promoting the Reduced Emissions from Deforestation and Degradation (REDD) programme as an option for generating income in Conservation Districts. They are investigating how the REDD financing and benefit-sharing mechanisms can be leveraged to support the implementation of Conservation District concept.

Forest community development: illegal activity, human rights or corporate social responsibility

With limited rights and access to natural resources, and with forest resources declining, local communities are left with few livelihood options. Many are driven to take up illegal logging and converting forest for other uses, such as oil palm cultivation, to provide quick cash income. Although alternative, more sustainable livelihood initiatives are promoted by government, assistance, tools, and guidelines are needed for effective implementation on the ground.

Recent initiatives by the Ministry of Forestry to create the basic conditions for sustainable livelihoods are Community Plantation Forest (Hutan Tanaman Rakyat – HTR), Social Forestry (Hutan Kemasyarakatan) and Community Forest (Hutan Rakyat). The recent switch

from voluntary to mandatory CSR for companies involved in natural resources extraction opens up opportunities for communities to gain support from companies operating in their proximity.

TBI Indonesia, FORDA and Lambung Mangkurat University are supporting a PhD programme to investigate alternative ways in which CSR in natural resource extraction can increase the wellbeing of forest-dependent communities and reducing pressures on forest resources and biodiversity.

Integrating local land use systems in collaborative management of protected areas

Protecting and managing protection forests to maintain their environmental services requires action by all tiers of government, and more importantly, the involvement of local communities. Research and action by TBI Indonesia in several protected areas has increased our knowledge about their biodiversity and functioning, and the role of local community in protecting the forest.

A PhD programme run by TBI Indonesia with FORDA, CML Leiden and Gadjah Mada University is investigating appropriate collaborative management systems for protected areas and protection forests that not only provide sustainable livelihoods for forest dependent communities, but also maintain forest services.

Integrating traditional land use and land rights into spatial planning

Existing traditional rights and local community interests are not properly recognised in land use planning at all levels of government. This leads to conflict with other land uses, which can cause a considerable loss of livelihoods opportunities. Despite the existence of regulations at the district level for recognising traditional rights, rarely are these rights recognised in practice. The procedure for recognising customary rights is a long and often contentious process and no guidelines have been prepared to assist the authorities, which discourages local governments from taking action to solve this problem.

Meanwhile, the potential time and costs involved in resolving every potential conflict separately discourages investment. For community forestry policy to be effective, practical and legal provisions have to be made for customary

rights and community usufruct rights. The rights of outside investors should also be clear.

TBI Indonesia is working with FORDA, Mulawarman University and ITC on a PhD programme to investigate existing spatial planning procedures and their implications for local livelihoods, participatory integrated spatial planning processes and conservation, and the livelihood outcomes of spatial planning patterns. Tools are being developed for participatory integrated spatial planning, based on a number of case studies and models. Most of the case studies are in East Kalimantan, but the programme is not limited to this region. The knowledge gained will be used to develop integrated land use planning to accommodate customary and traditional land rights into formal spatial planning processes.





Suriname

The TBI Suriname programme has three main themes:

1. Forest products and trade: sustainable forest management and certification, appropriate implementation of the CELOS Management System, understanding costs and benefits of timber harvesting and processing and forest financing mechanisms;
2. Biodiversity conservation and forest services: sound tools for forest and NTFP management, valuation and capturing of forest environmental services;
3. Forest-based community livelihoods.

In pursuing these themes, TBI Suriname works with the Ministry of Physical Planning, Land and Forest Management (RGB), the Anton de Kom University of Suriname (AdeKUS), the Centre for Agricultural Research in Suriname (CELOS), the Foundation for Forest Management and Production Control (SBB), the

Nature Conservation Division (NCD), government, non-governmental and private organisations, local communities and donor organisations.

Knowledge

TBI Suriname was one of the contributors to the seventeenth annual meeting of the Association for Tropical Biology and Conservation (ATBC), held in Paramaribo on 9–13 June 2008 and attended by about 450 people. The following week (16–19 June 2008) TBI Suriname organised a national workshop to prepare for the United Nations Forum on Forests – Country Led Initiative (UNFF–CLI) conference on Financing Mechanisms for Sustainable Forest Management ('the Paramaribo dialogue'). The CLI conference, held on 8–12 September 2008 and attended by more than 225 people, heightened national awareness of the value of forests and encouraged local partners to become more involved in developing a national strategy. The



Ministry of RGB has taken an active part in international meetings on Forest Financing Mechanisms, REDD and carbon credits. TBI Suriname is involved in the formulation of the national agenda and is advocating a portfolio approach which uses the multiple functions and economic opportunities of the forest. At present the country is focusing mainly on timber as the sole source for generating forest revenues.

The Transfer of Knowledge Project II was completed in 2008. Under the supervision of a mentor or senior professional in their field, local junior and mid-career level professionals at BSc level and higher compiled career development plans and received training and further education. At the end of the project, half the participants continued with their career development plans. One of the graduates began an MSc programme in Forest Ecology and Management at

Wageningen University in September 2008 and will conduct her fieldwork in Suriname in 2009. Two others are planning to enrol in a MSc programme in 2009, one at ITC Enschede and the other at a university in the USA.

TBI and the Van Hall Larenstein University of Applied Sciences (the Netherlands) are working with the AdeKUS to modernise its BSc Forest and Nature Management curriculum. The aim is to add value to the programme, increase the inflow of students and the outflow of graduates, and promote interactions between Southern and Northern partners, increasing the prospects for the forest and nature sector in the mid to long term. The new curriculum will be linked to the AdeKUS MSc curriculum in Sustainable Management of Natural Resources, developed in collaboration with the Flemish Inter-University Board (IUC-VLIR) and starting in November 2009.

Capacity and organisations

Following studies that identified capacity building for individuals and organisations as crucial for improving the quality of forest and environmental goods and services, TBI Suriname is now managing the Capacity Fund for Forests and Nature. Under a €720,000 contract with the



Dutch Ambassador signed in December 2008, the Fund will finance training for individuals and organisations active in the sector for a period of four years. The Capacity Fund for Forests and Nature will be linked with other capacity building activities, including a follow up to the Transfer of Knowledge project.

In 2009 TBI Suriname partners CELOS, NCD, the Organisation of Indigenous Village Chiefs (VIDS) and Culture Com consultancy will conduct a Multidisciplinary Landscape Assessment (MLA) of the Carolina Resort with the indigenous villages of Pierre Kondre, Redi Doti and Cassipora. The MLA is a comprehensive biophysical assessment of the landscape that will provide diagnostic baseline information for discussions with communities. It is expected to reveal development opportunities for the local indigenous populations, provide a valuable decision-making tool for policy makers and provide guidance for future research. In 2008 a MSc student from the University

of Amsterdam carried out her field research on forest fragmentation in the area, identifying nine types of landscape elements which will be explored in future studies.

Dialogue and linkage

A book on research and experience with the CELOS Management System (CMS) is being prepared for publication. The draft manuscript was finished in 2008. The book will publicise the research results underpinning the practical application of CMS and provide a basis for further research.

The increased national interest in the role and value of forests is generating momentum behind the TBI Suriname programme and favours the development of a common agenda for the sector. TBI Suriname is meeting other donor organisations in the country with the objective of harmonising the agendas to raise the effectiveness of programme activities.



Multidisciplinary Landscape Assessment in Carolina Resort

The Carolina Resort in the district of Para has five indigenous villages, forestry concessions, a forestry research site, protected areas, heritage sites and tourism opportunities. In 2007 it was selected for a Multidisciplinary Landscape Assessment (MLA) to identify and describe its environmental services and values from the perspective of the local people. Facilitated by the Organisation of Indigenous Village Chiefs, indigenous representatives from the villages exchanged ideas with the project team on participation and sharing of findings from research and other activities.

In 2008 the MLA project partners and the local populations took part in several meetings to prepare for a MLA training workshop to be held in the first quarter of 2009. In the subsequent MLA, information will be collected on vegetation, soils, traditional use and

socioeconomic activities and maps of the area will be compiled. These will enable the local population to make better use of its environment and exploit economic opportunities, and allow government authorities and policy makers to make more balanced decisions for the area.

A further aim is to establish an Indigenous Knowledge Centre (IKC), managed by local people. The centre can help local people make more effective use of their knowledge. It could also provide tourists with information, organise nature-related day tours and coordinate the promotion and sale of local handicrafts and other products. TBI Suriname will cooperate closely with the IKC to provide opportunities to local, international and traditional scientists to do research in the area on one of the TBI themes.

Forest Financing Mechanisms

The UNFF-CLI on Forest Financing Mechanisms, organised by the governments of Suriname, the Netherlands and the USA, was held in Paramaribo in September 2008. Prior to the CLI event, TBI organised a preparatory national workshop in Paramaribo and has published the workshop proceedings.

As a contribution to the CLI, TBI Suriname commissioned a study on forest financing mechanisms in Suriname at the request of the CLI Presidential Task Force. The study was financed by the Netherlands Ministry

of Agriculture, Nature and Food Quality and carried out by four local consultants. The report, *Rapid assessment of existing financial mechanisms for sustainable forest management in Suriname*, has been published by TBI Suriname. The study presents a national inventory and evaluation of existing financing mechanisms supporting sustainable forest management (SFM) and forest conservation in Suriname. Financing mechanisms from the public sector, international entities, the commercial private sector, forest communities, NGOs

and the international private sector were all considered. It was concluded that existing financing mechanisms for SFM in Suriname are all underdeveloped, not always available or available under less than favourable conditions. A number of recommendations were made, including removing barriers to financing, addressing the tenure situation in the hinterland, creating a National Forest Fund, and lobbying actively for the creation of mechanisms for carbon crediting.

One of the main challenges faced by Suriname in stopping forest degradation and deforestation – and in enhancing the contribution of forests to development – is the need to increase the competitiveness of SFM and generate more investment in and revenues from forests. Another challenge is to ensure that the issue of compensation mechanisms for standing forests is being

put on the international agenda. A key cause of the continued forest loss and unsustainable management is that only some forest goods, such as timber, have a market value. The market for many other important goods and compensation for services that forests provide has yet to be developed.

Suriname has escaped large-scale forest loss and forest degradation, but the revenues generated from its forests fail to meet the demands of sustainable development and fall short of realising their full potential. The CLI meeting on forest financing mechanisms and the study contributed by TBI Suriname provide a good basis for direct action to improve the forest sector. They feed the debate on the development of a National Forest Financing Strategy and innovative financing mechanisms that will help to make Suriname's forests a lasting and profitable asset to the nation.





Viet Nam

The second phase of the TBI Viet Nam programme (2007–2011) was developed during a series of participatory workshops and consultations, and approved by the Prime Minister and the Ministry of Agriculture and Rural Development (MARD) in 2008. The main focus of the programme is on benefit sharing policies, especially the impact of forest land allocation on the livelihoods of forest-dependent people and forest biodiversity.

Knowledge

TBI Viet Nam supported the development of the National Forest Research Strategy (NFRS) to 2020, providing technical and financial assistance to the Forest Science Institute of Viet Nam (FSIV) and the Science and Technology Department of the Ministry of Agriculture and Rural Development (MARD). The NFRS is an integral part of the National Forestry Strategy (NFS) and sets out the legal framework for the development of

long-term forest research programmes to 2020. It will guide priority setting, leading to more efficient scientific research and project development, and may serve as a useful tool to attract donors.

TBI Viet Nam and its partners held a series of consultations with prominent experts, international organisations, NGOs and development projects from the forest sector. These sessions contributed significantly to defining and prioritising the research agenda and recommendations for the NFRS 2008–2020. The NFRS was published and presented to a broad audience at a launch ceremony in November 2008. It is available in the English and Vietnamese languages.

Throughout 2008 TBI Viet Nam and its research partners elaborated the TBI Viet Nam programme into detailed research projects. The research projects are being



carried out by PhD students supervised by Southern and Northern research institutions. All projects are related to the central theme of Forest Land Allocation (FLA):

- Designing an information management system to identify, store and manage relevant information on socioeconomic and land resource issues related to FLA.
- An analysis of the consequences of land use changes, forest resources and income generation brought about by FLA. The study will identify alternative livelihood strategies for forest dependent communities to generate income and improve biodiversity following FLA.
- As part of a joint project with the Huế University of Agriculture and Forestry, a PhD student is finalising his research proposal on socioeconomic research related to FLA in the North Central region of Viet Nam.
- An analysis of the impact of FLA on biodiversity and the abundance of economically valuable and rare tree species in allocated forest lands and fragmented landscapes.
- The distribution of tropical tree species in Viet Nam. This PhD study will make use of the data set from

periodic forest inventories in the whole country done by the Forest Inventory and Planning Institute (FIPI) in recent decades. As a first step, the structure of the database has been improved, which will increase its potential for forest conservation and management.

- The last PhD study will look at the population dynamical characteristics of *Sterculia lychnophora* Hance that are important for the sustainable harvesting of plant resources in Viet Nam.

The projects will bring together national and international partners for capacity building and adopt new approaches to research in Viet Nam. The projects are developed with full participation at all levels, from local communities to national institutions.

Capacity and organisations

TBI Viet Nam helps key institutions and organisations within the forestry sector to improve and strengthen their research capacities and staff skills. Activities already initiated by TBI Viet Nam include discussion platforms, training and dissemination.

One project specifically deals with institutional strengthening of Hue





University of Agriculture and Forestry (HUAF). It will equip staff and students with research skills in integrated, participatory socioeconomic research and methodologies related to holistic livelihood research, specifically in and around forested areas. To launch the project, TBI Viet Nam and HUAF provided support to three MSc students from Utrecht University investigating stakeholder participation in forest land allocation and its livelihood impacts in the Nam Dong district of Central Viet Nam. The visiting students worked with MSc students from HUAF and made joint presentations. In addition, several guest speakers from national and international university partners of TBI Viet Nam delivered lectures to postgraduate students and lecturers at HUAF.

Topical short training courses were provided for local professionals and institutions. An officer from Thua Thien Hue Provincial People's Committee was sent to the Netherlands to attend a three-month training course on communication skills. The officer has been able to apply his new skills in his daily work, resulting in closer and more significant cooperation between organisations within the Thua Thien Hue and regional forest sector. A staff member from the Forest Science Institute of Viet Nam attended

a one-month training course on the landscape approach in nature resource management in Bangkok, Thailand. The course was organised by Wageningen University and the Regional Community Forestry Training Centre (RECOFTC). The new insights are already making an impact in his research at FSIV.

As a member of the Forest Sector Support Programme (FSSP) since 2003, TBI Viet Nam has conducted research and organised training courses in close cooperation with other FSSP partners. TBI Viet Nam gave a presentation at the FSSP annual meeting on research partnerships within the forestry sector, outlining the need for collaboration and opportunities for the forest sector in Viet Nam to build on existing and potential new partnerships.

Dialogue and linkage

The Forum on Forest Land Allocation (FLA), held in May 2008 in Ha Noi, was an important event for TBI Viet Nam. More than 100 researchers, scientists, decision makers and stakeholders from around the world participated in the forum, which explored the constraints on and opportunities for providing



the information and expertise needed to support the relevant agencies and policies makers. Several issues were discussed: forest land tenure for the poor; how forest land allocation works to reduce poverty; how the land accumulation process has taken place after FLA; what needs to be done at the policy level to improve the implementation of FLA on the ground; how to make better decisions at all levels, from the province to central government; and the supportive role of research projects in improving the decision making process in FLA and the forestry sector in general. The forum proceedings was published in late 2008, and is also available on TBI website.

In November 2008 the Forest Inventory and Planning Institute and TBI Viet Nam hosted a conference on 'The role of Forest Inventory, Planning and Design

in the Implementation of the Forest Development Strategy from 2007–2010 and towards 2020'. This conference provided valuable technical and management insights that can be used by FIPI for the implementation of its tasks and responsibilities. A significant part of the meeting was dedicated to carbon accounting and monitoring for the new Reduced Emissions from Deforestation and Degradation (REDD) programme. The participants discussed the opportunities for the forestry sector to take part in the REDD pilot projects, the research project on the methodology of measuring CO₂ sequestration in forests and related climate change topics, and the difficulties with implementing a REDD programme in Viet Nam, such as the capacity of local staff, new technology and limited budgets for forest inventory and planning.



Forest regeneration and restoration: Predicting tree growth for effective forest management

As the area covered with old-growth forests declines, secondary forests are becoming more important. They will increasingly provide goods and services, such as biodiversity conservation, erosion control, watershed management, soil improvement, timber production and other forest products. Everywhere in the tropics, increasing numbers of people, especially the poor, will depend on these forests to make a living. For a forest manager it is important to know how to improve the quality of the forest with a minimum of costs and labour. We need to know more about the underlying ecological processes driving natural succession in secondary forests, especially in very early stages when competition is mainly between early successional species. Also, little is known about the interaction of species with the surrounding vegetation, including both native and introduced plants.



Restoration ecology has attracted growing interest, especially for management options to improve forest regeneration. Relevant techniques include enrichment planting and liberation, but conducting experiments to test these management practices is time consuming and costly, and constrained by experimental conditions. To address these issues, TBI Viet Nam, Bach Ma National Park and Utrecht University supported a PhD study on using an alternative approach to predict forest regeneration through the use of models.

The PHOLIAGE model predicts the growth of individual trees in a stand. Tree characteristics, such as height, leaf area, crown dimensions and physiological traits, as well as the characteristics of the vegetation, height and density, can be varied. Different management practices such as liberation, over-story thinning and line planting can be simulated for any tree in any forest in the wet tropics. The model is easy to use and the required data can be obtained relatively easily and quickly. It increases the efficiency of management activities and reduces the need for long-lasting and expensive experiments, saving both time and money.

The model was used for studies in the buffer zone of Bach Ma National Park in central Viet Nam. The model predicted the growth rates of young trees when liberated, showing that liberation of young trees (1.5 years old) increases growth rates by 34–49 %. If liberated

earlier, tree growth is even faster. The model was also used to calculate the most appropriate radius for vegetation removal to liberate trees: 0.5 m around each target individual. This was shown to be the most cost effective when considering labour costs and increased growth rates.

The model was also used to predict the growth of enrichment planting plots in Bach Ma National Park, where native species were planted in young natural forest, based on the light requirements of the species studied. For a number of native species, management practices were derived that will improve the success of enrichment planting activities. Management recommendations depend on the light demands of each tree species and on the height and density of the forest in which they are planted. In general, wider lines raise the growth rate of planted trees, but they are costly in labour and destroy the forest. The model can predict the most effective line width for any species in any type of forest,

taking into account labour requirements and damage to the forest.

The model was also used to predict the most appropriate degree of over-story thinning required for *Hopea odorata*, *Tarrieta javanica*, *Sindora tonkinensis* and *Homalium hainanensis*. Accurate determination of the level of over-story thinning minimises labour costs and damage to the forest, while maximising the growth of the planted trees.

The model has demonstrated the great potential of restoration ecology and was very successful in determining liberation and enrichment plantings at Bach Ma National Park. The model can be applied to other situations, such as liberation of climax species in plantings with an economic incentive, or in plantings under the canopy of exotic trees. By analysing the growth of trees subjected to different management activities, it can also be used to make forest restoration techniques more effective.





Chainsaw lumbering in Ghana and Guyana

In March 2007 Tropenbos International started the EU funded project '*Developing alternatives for illegal chainsaw lumbering through multi-stakeholder dialogue in Ghana and Guyana*'. This project will develop and promote effective policy measures to address the negative aspects of chainsaw milling, while maintaining its positive socioeconomic effects.

Case study development

In 2008 research began for the development of case studies on chainsaw milling in both countries. The analyses will determine the macroeconomic, political, legal and socioeconomic conditions that foster chainsaw milling and reveal its impacts. Reports are being drafted and it is expected that the case studies will be ready in early 2009.

Multi-stakeholder dialogue

The project uses Multi-Stakeholder Dialogue (MSD) as the key mechanism for developing an action plan to address the problems associated with chainsaw milling. This MSD will be fed with sound information to facilitate good decision making. The resulting action plan will be tested in pilot communities and incorporated into national and international policy processes.

Preparations for the MSD were carried out in 2008. A stakeholder analysis was prepared in both countries to reveal who has a stake in chainsaw milling, how big this stake is and the ways in which these stakeholders can influence chainsaw

milling. The stakeholder analyses will be finalised in consultation with the participants in the MSDs in 2009.

In Guyana two facilitators were hired to design and implement the MSD process. As the situation in Ghana requires operation at both district and national level, eight community forestry workers (CFW) and one national facilitator have been hired. The eight CFWs will facilitate the district level MSDs, supported by the national facilitator. These district level MSDs will feed into the national dialogue on chainsaw milling, which will be mediated by the national facilitator, supported by the national coordinator of the project.

In Ghana the preparations for the MSD started with a sensitisation programme, followed by district level meetings and national focus group meetings. The purpose of the sensitisation programme was to present the project to all the stakeholders, seek their consent and commitment and understand their expectations and fears about the project. The district level meetings in the eight





project districts were used to assess stakeholder perceptions on chainsaw milling and the MSD, to agree on issues to be discussed at the focus group meetings, and to facilitate the selection of representatives for the national MSD. At the focus group meetings, the attitude and expectations of important stakeholder groups were discussed, generating insights into stakeholder visions on chainsaw operations and identifying issues, values, motivations, problems and opportunities regarding the MSD.

Numerous challenges lie ahead in implementing the MSD. For example: how can we guarantee a good representation of the various stakeholders at the MSD meetings? Especially in Ghana we have to address the misconception and high expectations of non-formal stakeholders, such as chainsaw operators, carriers, transporters and timber brokers, that the project advocates the legalisation of the production and trade of chainsawn timber. Legalisation is just one of the possible options under investigation.

Capacity building

Capacity building in this phase of the project concentrated on the project staff.

In Ghana, the eight community forestry workers were introduced to the project through an orientation programme. A facilitators' training programme to build the capacity of the facilitators to establish and manage the MSD in Ghana and Guyana was held in Kumasi, Ghana, from 19 to 30 May 2008, facilitated by Wageningen International. Sixteen participants from Guyana and Ghana attended the training programme: 3 senior facilitators, 8 junior facilitators, 2 national project coordinators and 3 staff from TBI Ghana.

Community work

In Guyana the project has selected three pilot communities for the implementation of its community forestry component: Ituni, Orealla/Siparuta and Annai/Surama. In Orealla and Annai a community forestry worker has been recruited to carry out the project. The community forestry advisor has discussed the objectives and implementation of the community forestry component of the project with the three communities and made an initial assessment of their capacity needs. The general consensus among all three target communities was the immediate need for capacity building in two areas: sustainability of the forest resources and increased knowledge in the trading of the timber produced by chainsaw milling. In collaboration with the Guyana Forestry Commission and the



Forestry Training Center Inc. (FTCI), six people were trained in timber grading. All candidates were successful and will become licensed timber graders. Two participants were also sponsored to attend a forest management course given by FTCI.

The set-up in Ghana differs from Guyana. In Ghana the project has not recruited a separate community forestry advisor for the project. The implementation of the community work will be closely linked with the MSD activities, so the whole project team will be involved in addressing the community issues in Ghana. Ghana selected eight pilot districts: Goaso and Sunyani in the Brong Ahafo Region, Nkawie and Juaso in the Ashanti region, Begoro, Kade and Akim Oda in the Eastern Region, and Assin Foso in the Central Region.

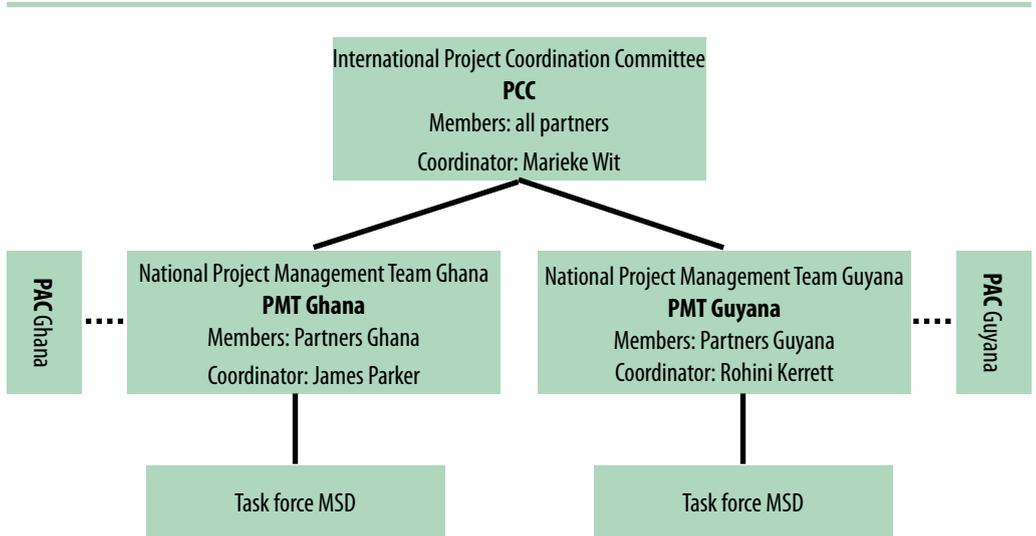
Project management

The project is managed by national project management teams (PMT), consisting of a representative of each

partner and the national coordinator. The PMT is responsible for the overall implementation and monitoring of the project at country level. At the overall project level, there is an International Project Coordination Committee (PCC), consisting of the PMTs plus the overall coordinator. The PCC meets once a year to discuss progress on the basis of semi-annual reports and approve annual work plans and annual budgets submitted by the PMTs. Furthermore, every country has established a Project Advisory Committee (PAC), an advisory body which offers general guidance and support to the PMT.

FLEGT

The EU Action Plan for Forest Law Enforcement, Governance and Trade (FLEGT) is the EU’s response to the global problem of illegal logging and the international trade in illegally-harvested timber. The heart of FLEGT is the Voluntary Partnership Agreement (VPA) with timber-producing countries that wish to eliminate illegal timber from



their trade with the EU. Ghana was the first country to sign a VPA in September 2008. This agreement includes the production for the domestic market, almost 80% of which is chainsaw milled timber. The production of and trade in chainsawn timber is illegal in Ghana, so implementation of the VPA might have a significant impact on local livelihoods and on timber production in Ghana. It is feared that measures to regularise the forest industry will lead to a crackdown on chainsaw milling, potentially leading to increased incidence of poverty and conflicts.

provide information and analyses of the production and trade in chainsawn timber, delivering valuable information for the design and implementation of the VPA in Ghana. Stakeholders will be engaged in developing mutually acceptable solutions to the problems associated with chainsaw milling through a multi-stakeholder dialogue, drawing on sound information from research activities.

Further information concerning the EU chainsaw milling project can be found at www.chainsawmilling.org.

The EU chainsaw milling project is linking up with the VPA process in Ghana. It will

Box 6. Associated partners

In Guyana: Forestry Training Centre Incorporated (FTCI); Iwokrama International Centre for Rain Forest Conservation and Development (Iwokrama)

In Ghana: Forestry Commission (FC); Forestry Research Institute of Ghana (FoRIG)

Budget

EC: €2.2 million

TBI & partners: €0.6 million

Implementation period: 2007–2012



Communal forestry in the Northern Bolivian Amazon

Studies on poverty in forest-rich countries show that forest communities are often among the poorest in the country. Growth of the national economy (GDP) tends to improve the livelihoods of the urban poor, but not that of people in forested regions. Evidence suggests that providing access to forests and markets is a promising way for forest communities to improve their livelihoods.

In 1996, after a long and elaborate consultation process, Bolivia adopted a new forest law giving forest dependent communities, indigenous people and small-scale organised forest users opportunities to gain access to the country's vast areas of tropical forests. But for that to happen, Bolivia needed to complete its second land reform, defining land tenure in large parts of the country. In Northern Bolivia, where a relatively small population of less than 150,000 people inhabit a region of almost 10 million hectares of forests, this process of defining land tenure has now almost come to an end, giving forest communities access to almost 2 million hectares of forest land, often as much as 500 hectares per family.

Building community capacity

The relatively large size of communal forest lands in Northern Bolivia, and the fact that the region is home to the Amazon's most important non-timber forest product, the brazil nut –responsible for 50% of the region's economy– justify a healthy optimism about improving the livelihood of the region's

forest-dependent communities. But although providing access to resources is an important first step, forest communities need to develop the capacity to manage their forests for commercial purposes, acquire negotiation skills to market their products, and create community forest enterprises or equitable corporate-community partnerships.

In Northern Bolivia, PROMAB, an EU funded project, is helping almost fifty communities to develop these capacities. The project is run by four Bolivian organisations: two NGOs, IPHAE and Herencia; and two universities, Universidad Autónoma del Beni and Universidad Amazónica de Pando. They are assisted by four international organisations: Netherlands Development Organisation SNV, Utrecht University (UU), TBI, and HIVOS (International Humanist Institute for Cooperation with Developing Countries).

Strategy

The strategy deployed to improve the livelihoods of forest-dependent communities and the conservation of



the region's tropical rain forest comprises three interrelated interventions: building human resources and strengthening institutional capacity of forest communities and their members; supporting these activities with well-directed applied and strategic research; and building capacity at the region's universities and NGOs to help forest communities manage their forests and market their products.

UU and TBI are providing support and guidance to the research team of both universities. Applied studies concentrate on practical problems and opportunities identified by the region's forest communities. Strategic studies are designed to yield a better understanding of the factors that explain the success of communal forestry in the region, and the nature and origin of the conflicts between community members about access to and marketing of forest resources.

At first glance, forest communities in the region look rather similar, but closer inspection shows differences in proximity to markets, access to roads and waterways, the level of organisation within the community, the availability of timber and non-timber resources, and resource distribution between community members and the internal social institutions created to harvest and market them. An analysis of these factors will help us develop a successful model of community forestry in the region. Such

insights will allow NGOs and government to better help communities manage their forests and improve their livelihoods.

Shifting conflicts

The completion of the second land reform has had an unexpected consequence: the conflicts over forest resources in the region between communities and outsiders are being transformed into internal conflicts within the boundaries of communal forest lands. Two factors partly explain these developments. First, the second land reform is concerned only with establishing the boundaries of the communal forest lands, not with their internal distribution between the community's families. Second, the exceptionally high prices for brazil nuts – three to four times the average over the last fifteen years – have stoked, intensified and prolonged these conflicts. To better understand the nature and origin of these conflicts, the project is now looking in more detail at the frequency of such conflicts, the factors that cause them, their consequences for income distribution within communities, and potential approaches to resolve them.

In the next two years we expect forest communities in Northern Bolivia to become better forest managers, to the benefit of rural families and the conservation of the region's rich biodiversity.



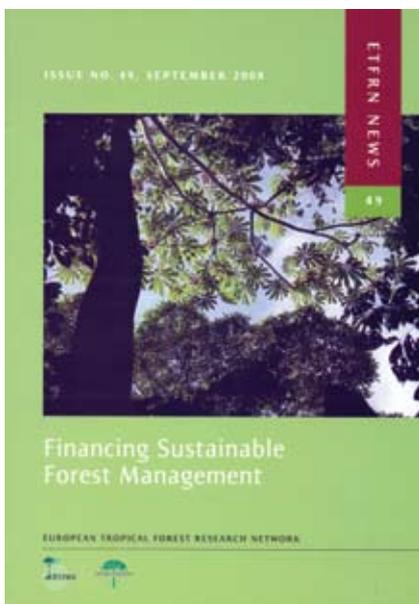
The European Tropical Forest Research Network

The mission of the European Tropical Forest Research Network (ETFRN) is to link research to policy, in other words to ensure that knowledge leads to better policies and that the knowledge institutes in the network deliver the information and knowledge needed by policy makers. As this matches TBI's mission, TBI has long been ETFRN's coordinating member and national focal point in the Netherlands.

Following concern in recent years about the financial health and continuity of ETFRN, in 2008 basic funding for the ETFRN secretariat was secured for five years through a partnership agreement between TBI and the Dutch Ministry of Agriculture, Nature and Food Quality.

Newsletter

The first step in the 'revival' of ETFRN in 2008 was the production of an issue of



ETFRN News on Financing Sustainable Forest Management, with financial support from the Dutch government and the UK Department for International Development (DFID). Adequate financing for sustainable forest management is directly linked to broader development objectives like poverty alleviation, access to safe drinking water, climate change mitigation and the protection and management of the natural resource base for economic and social development. This issue of ETFRN News contains more than 35 articles on a variety of current policy and implementation initiatives at the international, national and local levels, as well as views and experiences from experts and case studies of financial mechanisms for sustainable forest management.

EFTAG meeting

In 2008 the coordinator of the network participated in the European Tropical Forests Advisors Group (ETFAG) annual meeting in Germany. ETFAG is an informal group of forestry experts from the European Commission and its member governments. The purpose of the ETFAG meetings is to enhance information exchange, problem identification and liaison, thus providing opportunities for action. The group examines and discusses relevant strategic issues concerning tropical forestry.

Apart from policy updates by countries and agencies, one of this year's primary topics at the ETFAG meeting was 'International Financial Architecture

for Forests'. It was concluded that the financing gap for Sustainable Forest Management (SFM) will continue; no single instrument or source will be able to fill the gap of mainstream upfront investment in SFM. A combination of instruments is required, including grants, loans, credits, risk guarantees and payments for environmental services. Market-based mechanisms can have a significant potential for advancing towards self-financing of SFM, but require a strong legal framework and government support.

Several presentations were given on another key topic, 'Forests, Climate Change and Governance'. From the development perspective good

governance is an essential part of any strategy. A number of multilateral, bilateral and private initiatives on implementing the UN Reducing Emissions from Deforestation and Forest Degradation programme (REDD) are already underway. However, a lack of clear leadership in some countries can result in activities which are not linked, for example in the case of FLEGT (The EU Action Plan for Forest Law Enforcement, Governance and Trade). Although FLEGT and REDD should be complementary, some conflict and competition between the programmes can be expected.





General Board

Tropenbos International is governed by a General Board of reputable Dutch and international experts drawn from the research, policy, business and development communities. Between annual Board meetings, an Executive Committee, consisting of the Chairman, Treasurer, Chairman of the Programme Advisory Committee (PAC) and one or two members, meet on average four to five times per year.

In 2008 Ms Amoako-Nuama and Mr Haeruman retired from the Board; Mr Dietz, Mr Blaser and Ms Jiggins agreed to a second term, while Mr Mohren agreed to extend his term by one more year.

Ms Claudia Martínez (Colombia) and Ms Heleen van den Hombergh (the Netherlands) joined the General Board. Mr Alhassan Attah from Ghana, who attended the meeting as an observer, was elected as a new Board member as of June 2009.

The General Board meeting in 2008 was held in Colombia. It was the second



one organised in a TBI host country. This meeting allowed the Board to get acquainted with the TBI Colombia programme. During their visit, members met a representative from the Ministry of Housing and Environment and the Royal Netherlands Embassy (RNE), and visited the Universidad Nacional sede Leticia and the Amacayacu National Park in the Colombian Amazon. The Board made several recommendations to the TBI Colombia programme and suggested improvements to make a greater impact at the national and international levels. In general terms, the Bi-National Committee and General Board members were pleased with the visit and the general performance of the programme.



The Executive Committee of TBI met on three occasions. The composition of the Executive Committee consisted of Prof. R. Rabbinge (chair), Prof. G.M.J. Mohren, Mr E. Pelinck, Prof. A.J. Dietz and Prof. J. Jiggins. The principal issues discussed included the audit and finances for 2007, preparation for the next General Board meeting, the funding proposal for the Netherlands Ministry

of Agriculture, Nature and Food Quality Basin Programme, the monitoring of (LNV), the communication strategy, a programme implementation and other risk assessment of the TBI Foundation, management issues. the development of the Congo

Composition of the TBI General Board in 2008

Name	Country	Organization	
Dr C. Amoako-Nuama	Ghana	-	Retired in 2008
Dr J. Blaser	Switzerland	Intercooperation	-
Prof. A.J. Dietz	Netherlands	AMIDST; CERES	Executive Committee
Prof. H. Haeruman Js.	Indonesia	IPB Bogor	Retired in 2008
Prof. J.L. Jiggins	Netherlands	WUR	Treasurer, Executive Committee
Ms Y. Kakabadse Navarro	Ecuador	Fundación Futuro Latinoamericano	Vice-Chair (new)
Ms C. Martínez	Colombia	E3-Ecology, Environment and Ethics	Incoming in 2008
Prof. G.M.J. Mohren	Netherlands	WUR	Executive Committee
Mr A. Attah	Ghana	Forestry Commission	Observer, Incoming in 2009
Mr E. Pelinck	Netherlands	-	Executive Committee
Prof. R. Rabbinge	Netherlands	WUR	Chair, Executive Committee
Ms H. van den Hombergh	Netherlands	IUCN	Incoming 2008





Publications

Scientific publications

These concern publications directly by TBI staff or researchers associated with TBI and published by TBI, projects and consortia in which TBI participates.

- Bakker, L** (2008) Politics or tradition? Debating Hak ulayat in Pasir Pp. 141-157 In: Persoon, G.A. & Osseweijer, M. (eds) Reflections on the Heart of Borneo. Tropenbos International, Wageningen, the Netherlands
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Finances

During 2008 TBI received core funding from the Directorate General for International Cooperation of the Dutch Ministry of Foreign Affairs (DGIS). In 2008 a five-year agreement for additional co-funding was signed with the Dutch Ministry of Agriculture, Nature and Food Quality (LNV). A range of other donors also supported TBI's work, almost doubling the DGIS core contribution. TBI's

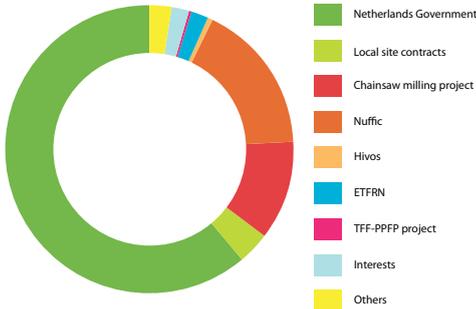
partners in the programme countries further provide substantial contributions in kind, in the form of office space and/or equipment, or make researchers or relevant expertise available. All these contributions enable TBI to continue its activities to improve the sustainable management of tropical forests for the benefit of people and biodiversity.

Donors

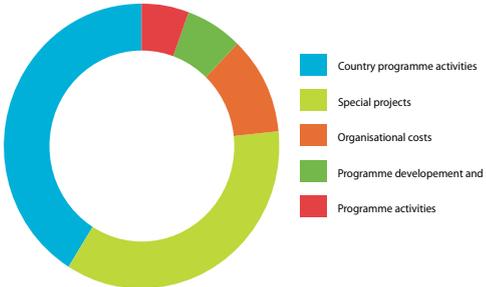
the Netherlands	Type
DGIS	Core funding
LNV	Co-funding core programme
NUFFIC	Scholarships and NTP programme
International	
DFID (UK)	ETFRN
Institute Alexander von Humboldt (Colombia)	Local research projects
HIVOS/EU	Project based contribution (Bolivia)
EU	Chainsaw lumbering project
GTZ	Project based contribution (Viet Nam)
TFF	Project based contribution (Viet Nam)

Annual accounts 2008

Revenues



Expenditures



Revenues	€ x 1000	%
Netherlands Government		
DGIS (core contribution)	1,975	57.2
DGIS (Competing Claims project)	39	1.1
LNV	96	2.8
Local site contracts	120	3.5
EU Chainsaw Ghana/Guyana	391	11.3
Nuffic NPT programme	555	16.1
Nuffic Huygens programme	23	0.7
Hivos - Bolivia project	23	0.7
ETFRN	59	1.7
TFF - PFPF project	18	0.5
Interest	63	1.8
Miscellaneous (a.o. consultancies)	93	2.7
Total	3,455	100.0

Expenditures	€ x 1000	%
Country programme activities	1,413	40.9
Special projects	1,228	35.5
Organisational costs	386	11.2
Programme development and monitoring	227	6.6
Programme activities	201	5.8
Total	3,455	100.0





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By making knowledge work for forests and people, Tropenbos International contributes to well-informed decision making for improved management and governance of tropical forests. Our longstanding local presence and ability to bring together local, national and international partners make us a trusted partner in sustainable development.



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