

Sustainable Forest Finance Toolkit



This Toolkit has been developed jointly by PricewaterhouseCoopers (PwC) and the World Business Council for Sustainable Development (WBCSD). It is a globally applicable resource designed to help financial institutions support the management of forest resources through sustainable and legal timber production and processing, and markets for carbon and other ecosystem services.

The Toolkit incorporates detailed input from some of the world's leading commercial banks, forestry companies, certification bodies and NGOs.

Included within are practical resources to manage risks and opportunities at corporate policy and individual client level, and further contact points for more detailed support.

- Background** ▶ [Guidance for using the toolkit](#)
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World Business Council for Sustainable Development

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THE SUSTAINABLE FOREST FINANCE TOOLKIT

Disclaimer

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This Toolkit was created as an interactive PDF, which allows the user to easily navigate around the document and access external information sources using the embedded links. Below is a description of the key sections of the Toolkit.

1

New Application

- This section is designed for use by front office banking staff each time a new application for finance is received from a relevant organisation.
- The starting point is the client evaluation decision tree, which guides the user through a short process to identify the initial risk level of the prospective client
- The next sections outline the lower/higher risk approaches, and include a management interview template.
- All of the above are linked to supporting sections of the Toolkit for further information.

Key sections:

- Client evaluation decision tree
- Management interview template
- Higher risk client approach

2

Portfolio Management

- This section is designed to facilitate the review of the bank's portfolio of legacy clients.
- The starting point is to review client performance against contractual obligations to meet the bank's forestry policy
- It may be necessary to assess the client at either Forest Management Unit (FMU) level or for a specific processing operation.
- If a client is non-compliant with bank policy as required in its contracts, initiate a process to address the breach, including the creation of an action plan.

Key sections:

- Organisational performance
- FMU/supply chain performance
- Reviewing an action plan

3

Policy Development

- This section is designed to support the development of the bank's forestry policy, its implementation, ongoing revision and progress reporting.
- The starting point is the high level policy development model, which sets out key questions for management to tackle around Development, Governance, Implementation and Monitoring.
- There is additional guidance on key policy content and processes up to implementation, including a set of client performance requirements, which should form the backbone of the policy.

Key sections:

- Policy development model
- Suggested internal bank forestry policy and guidelines

4

Procurement

- This section is designed to help support the bank's internal procurement function to purchase sustainable forest products.
- The policy review process described in (3) should consider the bank's own procurement policy. A sample procurement policy is included here for reference.
- This section also include links to a comprehensive online publication prepared by the WBCSD and WRI, which includes detailed information and a range of tools to support sustainable procurement of forest products.

Key sections:

- Sample procurement policy

Contacts

Appendices

- These sections includes key contacts in the forestry teams at PwC and the WBCSD and links to additional resources available to support banks in:
 - Implementation
 - Training
 - Systems development

Background and overview

- ▶ [Guidance for use](#)
- ▶ [Document map](#)
- ▶ [Impact of economic development on forest cover and forest health](#)
- ▶ [Financial sector connections to forest cover and forest health](#)
- ▶ [Challenges associated with the world's forests](#)
- ▶ [Key sustainability issues in the Forest Products sector](#)
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1. New application

- ▶ **Client evaluation procedures ***
 - ▶ [Client evaluation decision tree](#)
 - ▶ [Management interview template](#)
 - ▶ [High risk client approach](#)
- ▶ **Issue briefing notes (including additional due diligence questions)**
 - ▶ [Legality](#)
 - ▶ [Small scale and community enterprises](#)
 - ▶ [Sustainable forest management](#)
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 - ▶ [Brazil](#)
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2. Portfolio Management

- ▶ **Portfolio Management ***
 - ▶ [Organisational performance](#)
 - ▶ [FMU / supply chain performance](#)
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3. Policy Development

- ▶ **[Integrated policy development model](#)**
- ▶ **Policy development outline**
 - ▶ [Relevance to the bank](#)
 - ▶ [Context and issues](#)
 - ▶ [Scope of the policy](#)
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4. Procurement

- ▶ **[Sample procurement policy](#)**

Appendices

- ▶ [Special places definitions](#)
- ▶ [Client performance requirements & questions](#)
- ▶ [Selected additional resources](#)
- ▶ [Consolidated due diligence questions](#)
- ▶ [Acronyms](#)

Contacts

*Implementation of the Client evaluation procedures and Portfolio Management will require internal training and external due diligence as well as stakeholder and independent consultation.

Background information



This section provides background information on the forestry sector and associated sustainability issues.



How does economic development impact on forest cover and forest health?

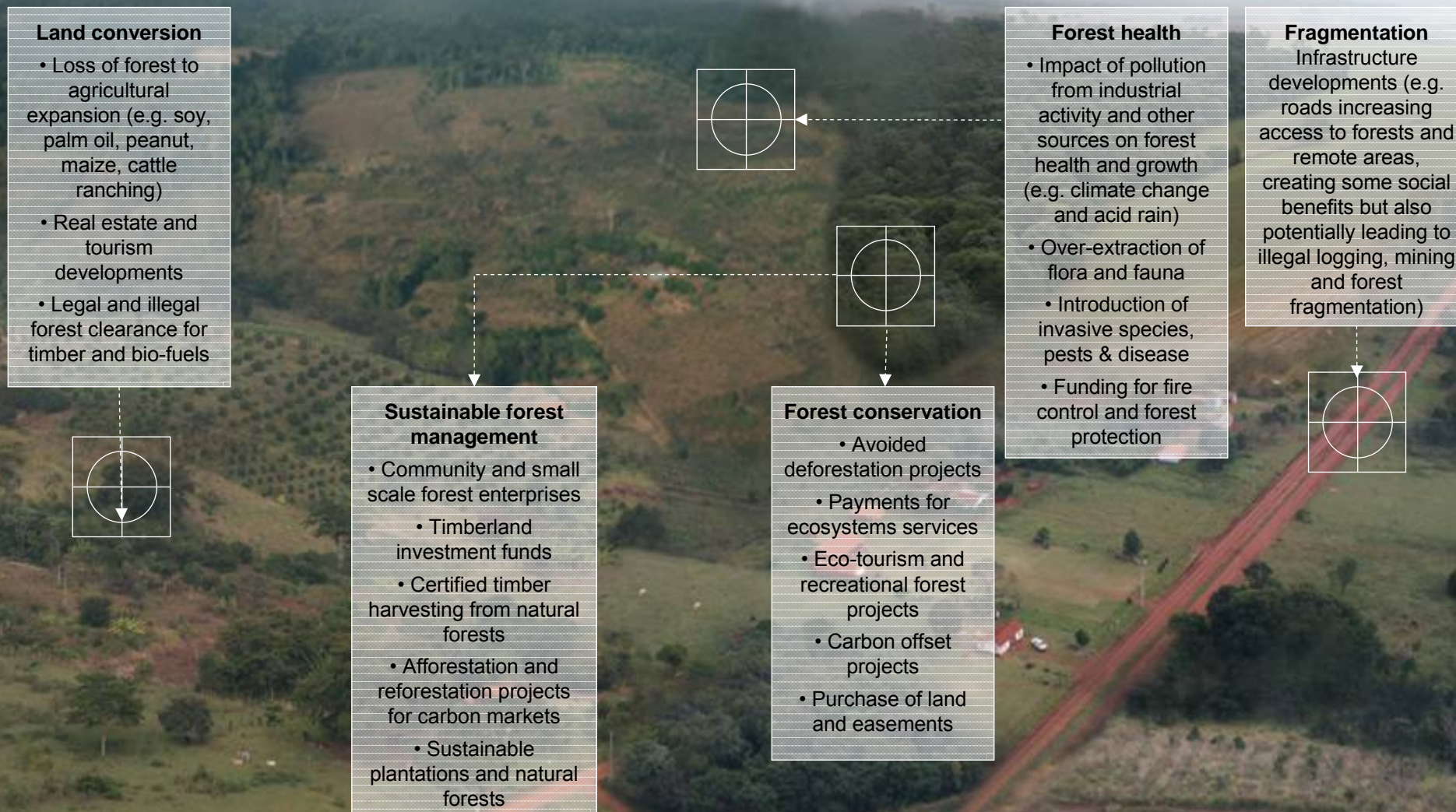
Financial sector connections to forest cover and forest health

Challenges and problems associated with the world's forests

Sustainability issues in the forest products supply chain

Costs and benefits of certification

How does economic development impact on forest cover and forest health?



Financial sector connections to forest cover and forest health



Business Banking in the Forestry Sector

- Loans, working capital and guarantees (e.g. for forest plantations, harvesting or processing operations)
- Banking services to agribusinesses and commodity traders (soy, palm oil, maize, peanut, cattle)
- Investments in forest carbon (e.g. REDD, forest carbon research)
- Lending to small scale and community forestry enterprises

Project Finance

- Infrastructure developments increasing access to forests or leading to deforestation (e.g. access roads, hydropower and mining projects)
- Pulp mill financing

Capital Markets

- Lending to small scale and community forestry enterprises
- Debt and equity market support for sectors affecting forest health (e.g. mining, fossil fuel extraction)
- Commodity trading

Asset Management & Private Equity

- Equity investments in listed FPP companies
- Investment in sustainable forest management projects through funds (e.g. TIMOS)

Procurement

- In-house procurement of forestry products (e.g. stationery, furniture, etc.)

Global Trade

- Trade finance and letters of credit
- Export credit facilities
- Financing services and investments in sectors buying forestry products (e.g. retailers, construction)

Note: This forestry toolkit focuses on the shaded areas above. It is also relevant to the other connections identified here, but requires additional tailoring and resources before its application.

There is growing interest among financiers in sustainability in forestry and the risks and opportunities it presents for the financial sector. There is increasing recognition that if left unmanaged, sustainability issues in the sector can pose financial and reputational liabilities. Simultaneously, there is growing awareness of and focus on green and low carbon solutions to create new business opportunities.

All large and small forestry operators require various forms of financial services and products. Consequently, banks can play a significant role in influencing sustainable forest management, e.g. devising incentives for certification through favourable terms for certified operations, due to the potentially lower risk exposure of these operations.

Climate change

Land use change to agriculture, and forestry activity, produces approximately 17% of global emissions, making it the third largest source of greenhouse gas emissions.

Eliasch Review, 2008

Deforestation

Since 1980, global forest cover has reduced by 225 mln ha due to human action. Deforestation in the tropics removes an estimated 13 mln ha, the size of England, every year.

Eliasch Review, 2008

Biodiversity

Approximately 60% of the world's examined ecosystems, including forestry ecosystems, have been degraded in the past 50 years by human activity.

The Economics of Ecosystems & Biodiversity, 2008

Forest certification

Over 320 mln ha of forests are certified. Yet, this is only 13% of the managed forests worldwide, primarily those in developed countries.

UNECE and FAO, Forest Products Annual Market Review, 2008

Forest dwellers

800 million people in rural tropical areas live in or around vulnerable forests and woodlands and depend on them for survival.

World Bank, News article, 2006

Illegal logging

Illegal logging on public lands worldwide is estimated to cause annual losses in revenues and assets in excess of \$10bln.

World Bank, Combating Illegal Logging in Africa, 2003

An overview of potential sustainability issues in forest products supply chains

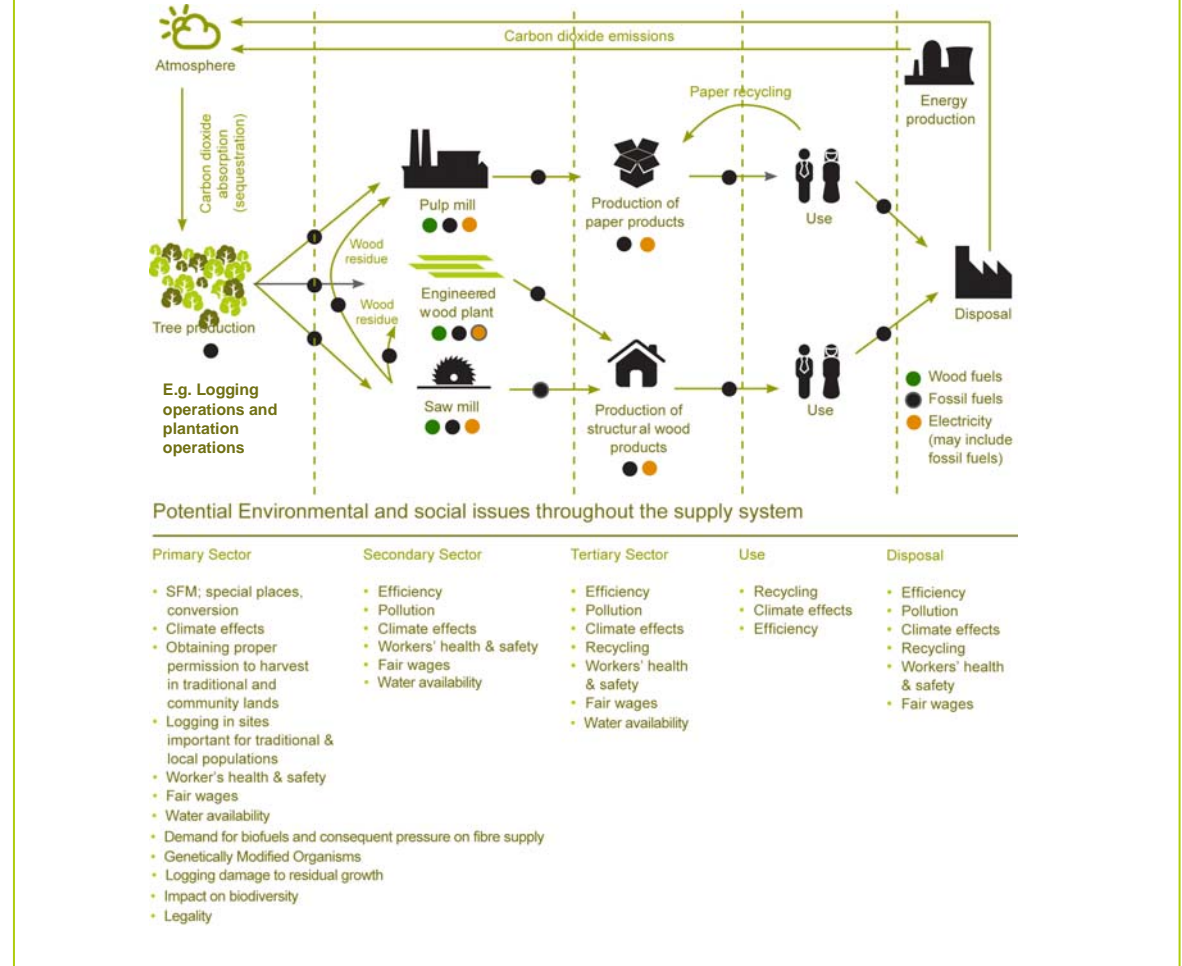
The diagram to the right summarises at a high level some of the key sustainability issues that may exist within supply chains for forest products.

- Protection of the rights of indigenous peoples and local communities is also a significant challenge for the sector in some countries where legislation is less developed.
- Further social issues including workers' health and safety and the provision of a fair wage can be issues in the primary sector, and also tend to cut across the processing and production sectors to the extent that these are conducted in countries where legislation is less developed.
- Climate impacts are prevalent at every stage in the forest products lifecycle, and the role of the forest products sector in combating climate change has been the source of increased international attention in recent years. Forests and forest products both store and emit carbon dioxide throughout every stage of the lifecycle.

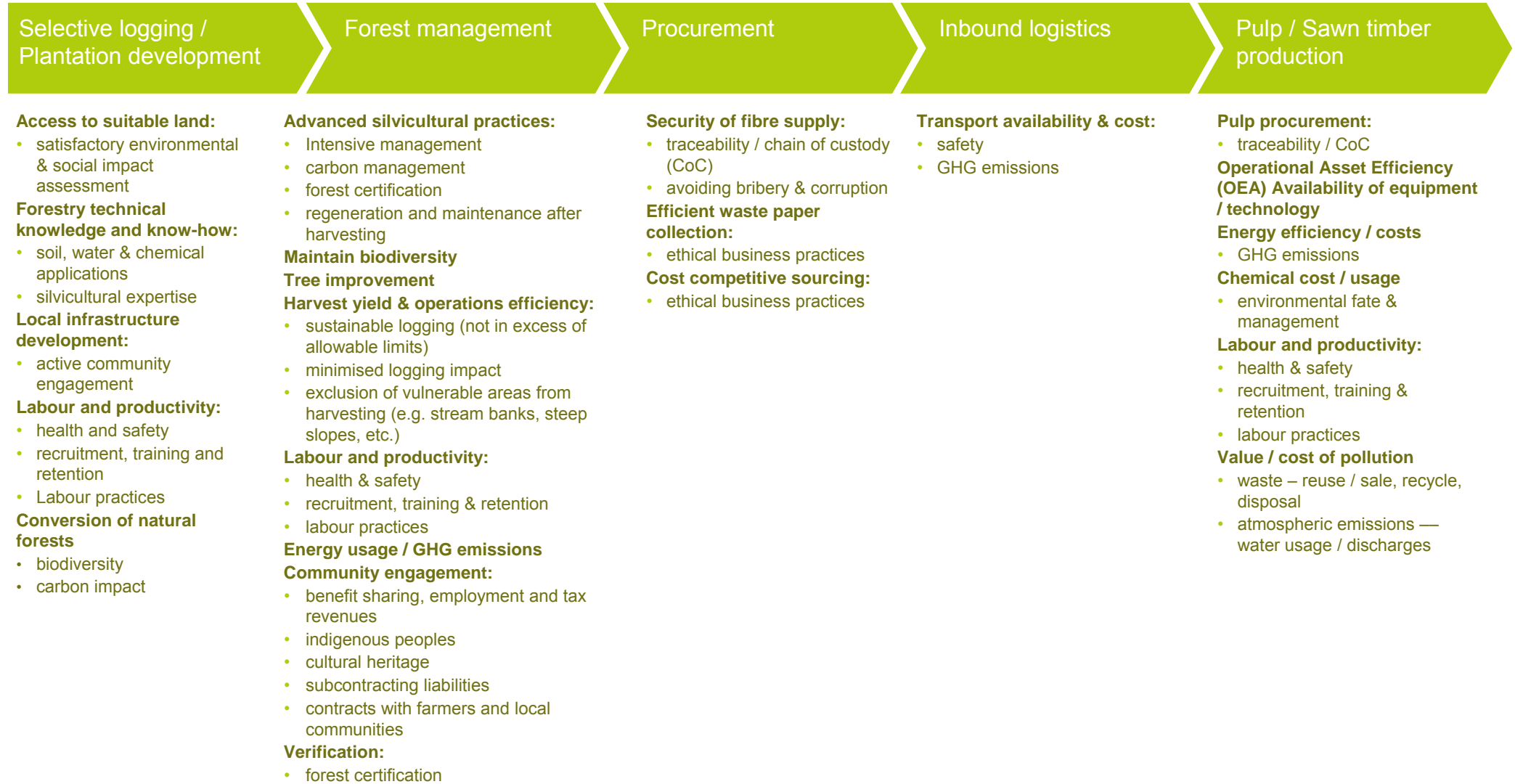
Overleaf

The diagram overleaf examines sustainability issues in more detail across the entire value chain for a hypothetical vertically integrated forest products company.

Generic forest products supply chain and potential environmental and social issues



Potential sustainability issues across the value chain of an example forest products company or its subcontractors' activities



Example forest products company value chain (cont)



The following text is extracted from the World Wildlife Fund (WWF) / Global Forest Trade Network (GFTN) report “Natural Capital: Financing forest certification in Malaysia”. While the report focuses on challenges in Malaysia, much of the content is applicable to forest management and certification anywhere in the developing world.

Scope

This study looked at the feasibility of Malaysian companies committing to certification of forest management and chain-of-custody through 44 interviews with company directors, forest managers, log purchasers, traders and government agencies between October 2006 and January 2007. This section summarises the findings related to the three questions below.

- What are the costs associated with certification, and how do these costs vary for different Forest Management Units (FMUs)?
- Are price premiums for certified timber significant?
- Is there at present a business case for responsible forestry?

It should be noted that this study did not consider the short- or long-term cost savings possible through responsible forestry and certification, as unfortunately none of the companies interviewed had quantified such information. Of greater concern, however, was the absence of information on the impact of current logging practices on the value of Malaysia’s forest assets.

Cost factors

Costs of Forest Stewardship Council (FSC) and Malaysian Timber Certification Council (MTCC) certification are numerous and will depend on at least four factors. The first and arguably most significant factor is the potential impact that certification has on levels of Annual Allowable Cut (AAC).

1. The impact on the AAC level

The impact on the AAC level depends on several factors, listed below. The topography of the FMU and current land-zoning plans, slopes, protected areas, buffer zones and conservation areas all reduce land available for logging. If these have already been demarcated and set aside within an FMU, certification will have less impact; if they are not present, they will be required to achieve certification.

Current harvesting practices

If reduced impact logging (RIL) is not currently practised, compliance with certification requirements is likely either to reduce the operator’s ability to extract high volumes of timber or to add significant costs.

The accuracy of the Forest Management Plan (FMP)

Although the science behind FMP development is clear and for Peninsular Malaysia must be reviewed by the National Forestry Council every five years, in reality FMPs and AAC-level decisions are of variable quality. FMPs must undergo a robust and detailed review during the certification process, which often results in ‘updated’ FMPs having significantly lower AAC levels than were previously allowed.

The extent of natural forest cover on plantation licence areas

Many forest areas are simply ineligible under current MTCC and FSC certification standards due to the widespread clear-felling or conversion of logged-over forest areas to fast-growing tree plantations. Under the FSC scheme, this can preclude from certification the area undergoing conversion and the plantation that follows, as well as, somewhat perversely, associated areas of natural forest that are covered by the same licence or licensed to the same company but are being sustainably managed.

Although the science is clear, in reality FMPs and AAC-level decisions are of variable quality.

A new MTCC plantations standard is under development, which is likely to permit conversion conditional on fulfilment of legal and environmental criteria. However, there does not appear to be much support for modification of FSC requirements.

As a result, if a forest management enterprise holding a plantation licence with significant existing natural forest cover were to seek certification today, it would be required to forgo its right to clearfell and convert the existing natural forest cover and instead adopt a reduced-impact selective logging management system. This would reduce significantly the volumes of timber that could be extracted. Only one licence holder in Sabah is known to be pursuing this option.

2. Current skill sets

One key practical barrier to implementing RIL and obtaining certification is the shortage of skills and experience in responsible forest management.

For companies with high staff-turnover, low- skilled workers and informal training procedures, there will be increased costs and time commitments in training staff where RIL skills are lacking.

3. Timeframe and concession size

The costs and benefits of certification will also depend on the timeframe involved, with some research indicating that RIL is generally more expensive in terms of operational costs in the short term. However, regeneration will be enhanced (allowing earlier re-entry) and more sustainable harvest levels will be achieved for the future. These benefits will depend on the size of the concession and the duration of the licence. Larger concessions will have higher total implementation costs but lower per-hectare costs. For very small FMUs with short-term licences, the implementation costs may not be recoverable during a company's licence period.

In theory, therefore, certification costs will be highest for FMUs with the following features:

- In large FMUs with flat, unlogged terrain with no areas previously 'set aside' as buffer zones or conservation areas, a large reduction in AAC will impact on revenues
- Old or inaccurate FMPs, low skill base, and poor forestry practices
- Significant areas of existing natural forest cover within plantation licence boundaries
- Informal management systems, lack of documentation, and outdated or poorly maintained equipment
- Short licence durations.

Certification costs

Quoted costs of achieving certification to either FSC or MTCC standards ranged from approximately MYR340 thousand (USD100 thousand) for 4,000 hectares to MYR4.3 million (USD1.26 million) for 40,000 hectares, giving an average additional cost of MYR96 (USD28) per hectare. This covered additional costs associated with certification requirements, such as audit fees, worker development (such as RIL training), improved road construction, and wildlife surveys.

In terms of AAC impacts, two figures were quoted (with FMPs as evidence) of 25 per cent and 40 per cent reductions, or an average reduction of 33 per cent on pre-certified AAC levels. Both these figures were for natural forest management areas subjected to selective harvesting. In both cases AAC was reduced because of several factors, including:

- Set-aside of conservation areas for protected species
- Introduction of buffer zones around water courses
- Reduced harvesting yields based on formal yield estimation and monitoring

If concessionaires have to reduce their levels of timber extraction substantially in order to achieve certification, this is cause for concern in two respects:

1. The high reduction in yields necessary to ensure they are sustainable, and associated reduction in revenues, will be unattractive to most companies and could deter them from getting certified
2. If current conventional logging (i.e. non-certified) yields are significantly higher than that which FSC and MTCC-associated experts consider sustainable, the implication is that the forest value of the State's assets may be being degraded, perhaps rapidly.

The forest value of the State's assets may be being degraded, perhaps rapidly

Price premiums

Aside from some marginal incentives for responsible (or low-impact) forestry practices, the principal incentive is the promise of higher market prices for certified logs and timber products. A review of relevant literature was straightforward given the absolute dearth of information, particularly for Malaysia. The most recent report found that MTCC meranti (*Shorea spp.*) sawn timber was achieving a two per cent premium and that Malaysian FSC meranti (*Shorea spp.*) and selangan batu (*Shorea leavis*) sawn timber were available irregularly at an eight per cent premium to UK buyers. These results were supported recently by the MTC, which acknowledged an MTCC versus FSC premium of three to four per cent as opposed to 10-11 per cent.

This study found that although current timber prices were high across the board, premiums were still pronounced. Premiums for certified timber appear to have increased substantially in 2006, and the pattern observed in this study is similar to those of other observers quoted above.

Premiums for certified timber appear to have increased substantially in 2006. In both Peninsular and East Malaysia, premiums of 30 to 40 per cent or higher were achieved through 2006 for FSC.

About half (10) of the companies questioned quoted specific premiums for logs, sawn timber, plywood, furniture and other products. The highest premiums quoted were for FSC timber to supply Europe, followed by FSC timber bought for the US market, and the lowest premiums achieved were for timber certified to MTCC. In both Peninsular and East Malaysia, premiums of 30 to 40 per cent or higher were achieved through 2006 for FSC plantation and hardwood logs and 10 to 15 per cent for FSC plywood and furniture. Meanwhile, premiums of between one and five per cent were quoted for MTCC logs and plywood.

It should be noted that these price premiums are highly variable. Views are often conflicting within the industry; the remaining 10 companies felt premiums to be negligible (but could not provide evidence) or had no firm view. Many suppliers complained of shortages in supply of both certified and uncertified timber, which is undoubtedly helping to push up current prices. However, as demand for certified timber looks set to increase ahead of supply, these premiums are likely to remain.

Is there a business case for forest certification?

Under current market conditions of high raw material prices and competition from lower-wage manufacturing economies, certification can make good business sense. Under these circumstances, the winners are likely to be those companies that acquire sufficient forest resources to secure their raw material supply, invest in downstream, value-added processing, and sell certified products to international markets that pay the highest prices. The financial services sector can potentially play an important role in facilitating that transition.

The business case for FSC and MTCC will depend on: the market supplied (which will determine premiums for certified products but also market access for uncertified products); the cost implications (dependent on the conditions covered earlier) and tenure (if implementation costs can be recovered during the course of a longer or extended concession licence, it will be easier for companies to bear the costs of certification). However, the business case alone will not determine a Board's decision; also crucial are the companies' current and forecast financial positions and their ability to absorb a short-term reduction in profits.

Across the country as a whole, uptake of forest certification in Malaysia by the private sector has been very slow, with just one MTCC certificate and two FSC certificates issued to companies. The slow uptake is due to a number of commercial, political and cultural factors, as well as the fact that in many instances companies do not yet see a compelling business case for forest certification. The study identified several reasons for this, listed below.

1. There is a lack of information on market demand and price premiums available for certified products.
2. Under current certification requirements, forest management companies holding plantation licences with significant existing natural forest cover would be required to forgo their right to convert the existing natural forest cover, significantly reducing the volumes of timber that could be extracted. Only one licence holder in Sabah is known to be pursuing this option.
3. Current price premiums alone may not offset the costs of certification and associated reductions in timber harvest in some FMUs. Typical implementation costs may be too high for companies making smaller profits, and internal rates of return may be reduced to levels unacceptable to investors.

4. The predominant trade pattern for Sabah and Sarawak is that primary and secondary products (logs, sawn timber and plywood) are exported to regional markets (primarily China, India and Japan) where there is little or no demand for certified products.
5. There is a widespread shortage of skills and experience in responsible forest management and certification during this research. This was a key issue affecting performance in several FMUs visited during the course of this research.

The incentives that most companies interviewed look for in certification are an agreed certification standard (no 'moving goal posts'), strong and stable demand for certified products, and guaranteed price premiums.

The study found that several companies are in the process of developing their own financial analyses to explore or make the business case for certification to their Boards. Further research on these analytical approaches and methodologies would be of use to companies, as well as to banks and investors who need to recognise the conditions under which certification can be viable in order to make strategic investments.

Unfortunately, there is a lack of information on the impact of current logging practices on the long-term value of Malaysia's forest assets. The industry is therefore largely ignorant of what future harvest yields are possible. This prevents a true assessment of the business case for responsible forestry and certification.

There is a lack of information on the impact of current logging practices on the long-term value of Malaysia's forest assets.

Costs and benefits of certification: Case study 2 – Russia

4 of 4



The following case study was kindly contributed by Metsäliitto. While the text focuses on challenges in Russia, much of the content is applicable to forest management and certification in other parts of the world. For further context on the state of the forestry industry in Russia, please see the Russia Country Briefing Note.

The Russian National Forest Certification Scheme developed with the support of the World Bank and the Russian State Forest Agency, has recently been endorsed by PEFC (Programme for the Endorsement of Forest Certification schemes). The development of the scheme took over five years and followed a multi-stakeholder consensus-driven process which, among other things, included harmonisation of the draft national PEFC and FSC forest management standards, thus providing for greater public involvement. In its strategy, the PEFC Council considers Russia as an area of the highest potential growth of PEFC certification, which can substantially add to the world's basket of sustainably managed certified forests.

Already, at the early stage of the scheme's development, the necessity to test the forest management standard was recognised as critical. Also, since there is no national accreditation body in Russia, the need to establish an accreditation programme has been identified.

A pilot certification project has provided a possibility to test the standard in practice, as well as contributed to the setting up of accreditation for the scheme by creating demand for certification services and subsequently for accreditation services.

In 2007, Metsäliitto Group, a large vertically - integrated forest industry group, launched a PEFC pilot forest certification project in its Russian subsidiary, Metsäliitto Podporozhye. Located some 300 km northeast of Saint Petersburg, the company has a long-term leasing agreement for 200,000 hectares of forest, thus representing one of the biggest forest leaseholders in Leningrad Oblast.

The company is responsible for forest regeneration in its own lease holdings, as prescribed in the Forest Code of Russia. The company supplies wood to Metsä-Botnia's Russian sawmill Svir Timber.

Since it came under complete Metsäliitto ownership in 2005, the company has been actively developed to become a modern environmentally and socially responsible and economically sound harvesting enterprise. In the forest certification project it has been possible to build on previous environmental and corporate responsibility investments. These include environmental training, a corporate responsibility development project, establishment of an ISO 14001 system and preparation of "Environmental Guidelines for Forest Management".

The preservation of forest biodiversity is regarded as an issue of high importance in the project. The method used to identify forests of high ecological value was developed on the basis of the method tested and adapted by the company in cooperation with the Baltic Fund for Nature, the largest local ENGO. During extensive fieldtrips, a group of recognised scientists has identified a number of valuable areas with a variety of endangered species, proving the efficiency of the method. These sites are excluded from the forest management plan. At present, harvesting is not allowed or is limited to selective types on 21% of the leased area, which will change as field investigations continue.

Metsäliitto Podporozhye has provided stakeholders with an opportunity to become involved with the project, especially on the local level: forest authorities, environmental and social NGOs, labour unions, science organisations and the media, through stakeholder hearings, seminars, consultation, local media and personnel magazine.

Practical examples of such involvement include sharing information about grouse display areas with local hunting organisations to secure their protection, providing job opportunities to local people to carry out reforestation work, cooperating with local people in identifying culturally and historically valuable places to ensure their safeguarding in the management plan, and enhancing employees' opportunities to influence decision-making in the company by reconstitution of a trade union sub-division.

The company expects to receive the first PEFC certificate in Russia by the end of 2009.

1 New Application



This section provides a model client evaluation* procedure to be used to assess all prospective financing applications and new customers operating within the forest products industry – from forest management to timber processing and paper production.

Underpinning the client evaluation procedure are succinct briefings on specific risks and opportunities at key stages of the industry value chain, and for key regions.

The management interview template is based on a recommended set of minimum performance requirements for new clients.

Bank staff conducting and assessing client interviews will require training and capacity building to understand how to evaluate client responses and identify potential high risk issues within their clients' businesses.

Client evaluation procedures*

Client evaluation decision tree

Management interview template

Higher risk client approach

* Client evaluation procedures consider a number of factors, of which sustainability is one. This client evaluation procedure will be most effective when integrated into the bank's overall client evaluation processes as one source of client assessment information.

Issue briefing notes

Legality

Small scale and community forest enterprises

Sustainable Forest Management

Special places

Planted forests

Certification

Pollution and Environmental Management Systems

Local communities and indigenous people

Forest carbon and ecosystem services

Country briefing notes

Brazil

Indonesia

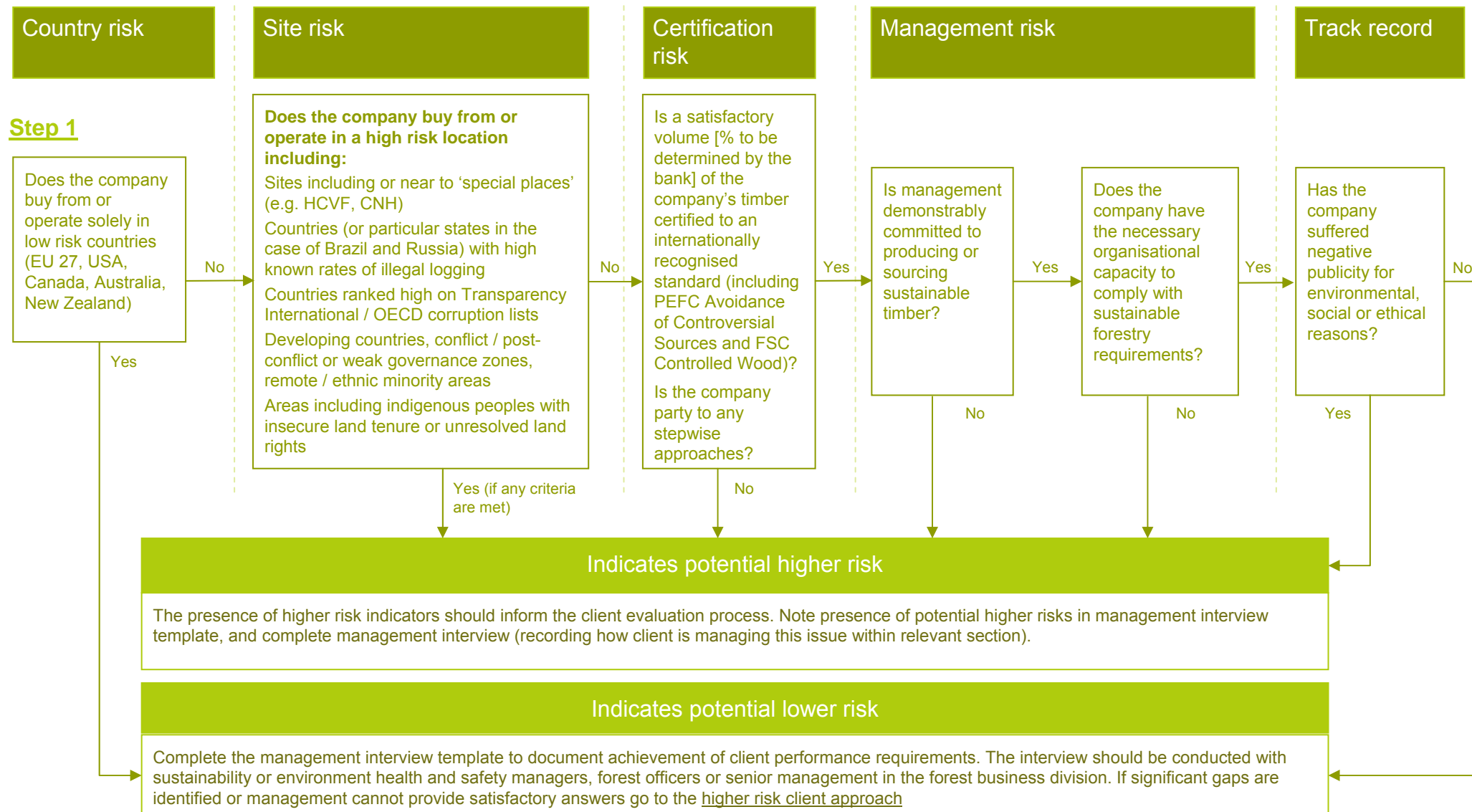
Malaysia

Russia

Illustrative – Client evaluation decision tree



New Application HOME



Client : _____ Management representative interviewed : _____ Position : _____ Date : _____

Description of client activities:

Questions for management

Response obtained

Refer to the consolidated due diligence questions for prompted secondary questions or further information. See Appendix 4.

Non-conforming to bank policy

Further info needed

Conforming to bank policy

Higher Risk Indicators

Based on an initial screening, have high risk indicators been identified? Yes No If 'Yes' complete Section IX on Higher Risk Indicators

I. Management and Governance

1. What environmental and social policies / procedures are in place, are they current (i.e. last reviewed in past 5 years), what were your sources of information in developing these policies (e.g. which stakeholders were consulted and how)?
2. Is there a strategic / management plan in place to address environmental and social issues? Does it include FMU / CoC certification? Has it been implemented? This may include the adoption of a 'stepwise' approach to achieving certification.
3. How are these policies communicated and implemented, and who is responsible?
4. Can management provide copies of policy documents and evidence of procedures in place (e.g. whistle-blowing hotline, forest management permits, licences and agreements)?
5. Who has senior level responsibility for environmental and social issues?

II. Resource Management

6. Is the company aware of how much is already planted and how much is plantable in the future within the concession or forest management area?
7. What training, SFM methods and practices does the company use and employ?
8. Has the company mapped and delineated special places and areas with high conservation value within their concessions or forest management area?
9. Have there been any significant legal claims, complaints or disputes regarding forest management practices, land rights or resettlements? How were they resolved?

Refer to the consolidated due diligence questions for prompted secondary questions or further information. See Appendix 4.	Non-conforming to bank policy	Further info needed	Conforming to bank policy
<p>II. Resource Management</p> <p>10. Can they provide copies of:</p> <ul style="list-style-type: none"> the forest management plan (ideally reviewed or updated in last five years) certification gap analyses audit reports (including VLO/VLC certificates and step-wise approach audits) certification documents (and % of total FMU area certified). See Certified Wood Search or FSC. 			
<p>III. Fibre Sourcing</p> <p>11. Can the company provide evidence that it has good title to all of its fibre (from own operations or suppliers') (e.g. land or timber deeds, contracts, bills of lading or other commercial documentation, VLO (Verification of Legal Origin)/VLC (Verification of Legal Compliance)/CoC certification)?</p> <p>12. Can the company provide an analysis of suppliers, or profile of the supply base, including information on legality risks?</p> <p>13. What wood tracing or Chain of Custody systems does the company use?</p>			
<p>IV. Eco-efficiency and Climate Change mitigation</p> <p>14. What information does the company monitor on resource (especially non-renewable) use, and has it set any reduction targets?</p> <p>15. Is the company training staff on eco-efficiency and/or making investments so as to improve this?</p> <p>16. What actions is management taking on energy efficiency and sourcing of low carbon energy?</p>			
<p>V. Health and Safety</p> <p>17. What policies and targets are in place to prevent workplace-related fatalities, injuries and accidents?</p> <p>18. What are the company's statistics on fatalities, lost-time incidents, hospitalisations and recordable incidents in the past five years?</p> <p>19. What training, safe working practices, personal protective equipment and accident reporting processes are in place?</p>			
<p>VI. Community Well-being & Stakeholder Engagement</p> <p>20. What mechanisms does the company use to engage with local communities build and maintain their support for operations?</p> <p>21. What mechanisms does the company use to ensure they have free, prior and informed consultation with communities? If community consultation has raised issues, has it resulted in action being taken to resolve them?</p> <p>22. Have a wide range of existing community groups been consulted (including minority groups)?</p>			

Refer to the consolidated due diligence questions for prompted secondary questions or further information. See Appendix 4.	Non-conforming to bank policy	Further info needed	Conforming to bank policy
<p>VI. Community Well-being & Stakeholder Engagement</p> <p>23. Has the company assessed and taken into account existing formal and informal and historic land-use rights that local communities and/or indigenous peoples may have within their forest concessions or forest management areas?</p> <p>24. What community initiatives does the company run, and what investments have been made (e.g. in health, education, housing, transport)?</p> <p>25. Have any formal agreements (e.g. memoranda of understanding, benefit sharing agreements) been signed with local communities?</p> <p>26. Have formal community groups been formed? Who participates, and how are they organised?</p>			
<p>VII. Human Rights and Labour Standards</p> <p>27. What processes does the company have in place to ensure compliance with applicable labour laws?</p> <p>28. What efforts has the company made to recognise and support international labour and human rights standards, including those areas covered by the 10 principles of the <u>UN Global Compact</u>?</p>			
<p>VIII. Reporting</p> <p>29. What information can the company show the bank or the general public to demonstrate its efforts in the above areas? Is this independently verified?</p>			
<p>IX. Higher Risk Indicators</p> <p>What higher risk indicators have been identified?</p> <p>How is the client addressing or managing these risks? What evidence can be provided to assure the bank that these risks are managed in a satisfactory manner?</p>			

Summary of findings

List and describe key potential risks / red flags / non-conformity to bank policy. Identify any remedial action currently undertaken / proposed by the client.

What further information / appraisals are required?

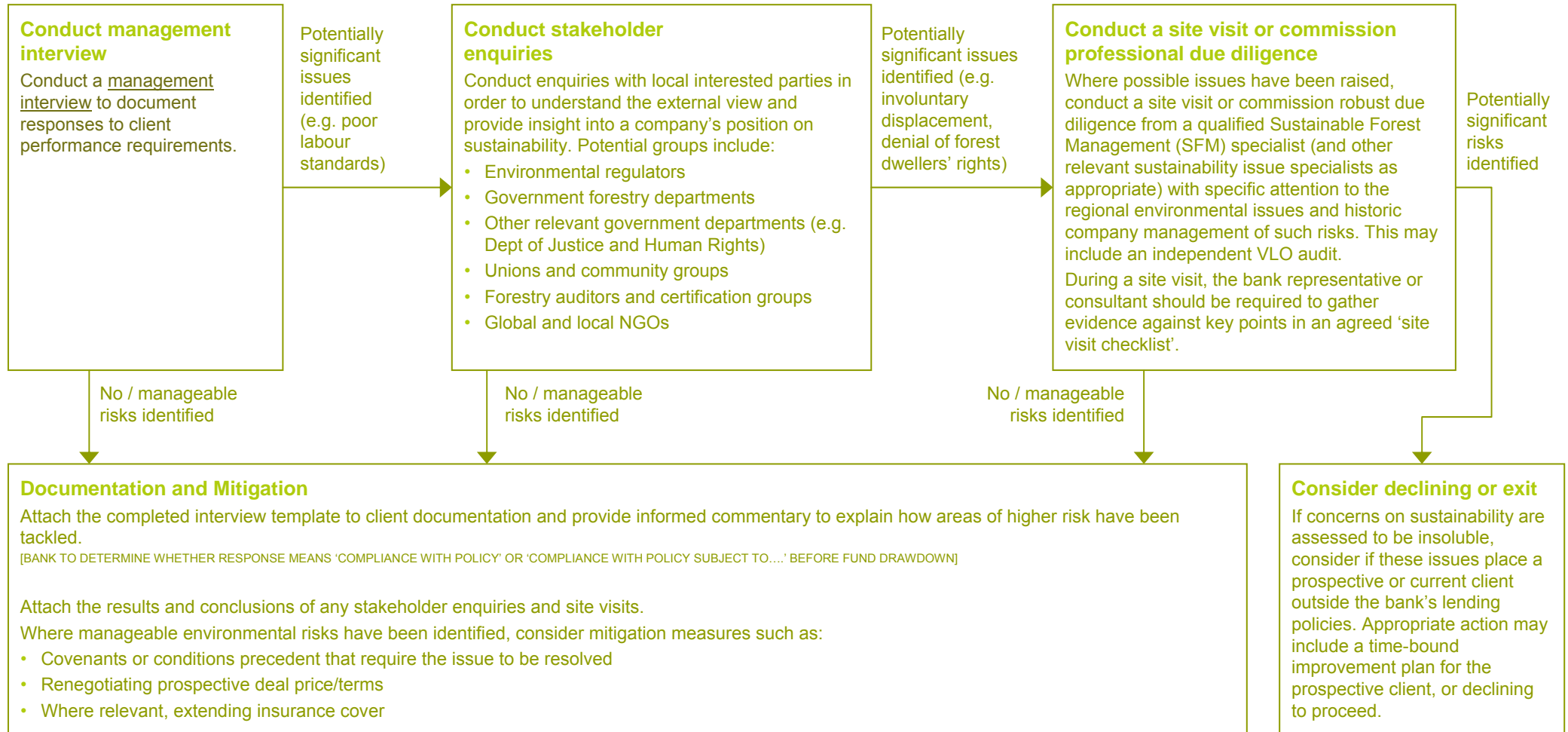
What is your overall assessment of the risks associated with this client?

Based on your analysis, please consider the following actions

- Proceed with normal bank policies and procedures
- Proceed, but include a cautionary note on security records with respect to potential liabilities or reputational or financial risks
- Proceed, but include specific environmental/social/governance related clauses in loan facility letters
- Conduct further due diligence using the *Higher risk client approach*

List further actions to be taken:

START



Banks may of course choose to decline the relationship or transaction at any point in this process, preferably following explanation to the client of their sustainability concerns.

What is the issue?

A straightforward although not all-encompassing definition of illegal logging is: timber harvest, transport, purchase or sale that violates applicable federal, state, or provincial laws.

Illegal harvesting may include:

- Extracting timber without permission from the appropriate authorities
- Damaging or cutting protected species
- Exceeding timber extraction quotas

Illegal transport may include:

- Illegal processing and export
- Fraudulent customs declarations
- Avoidance of taxes or other charges

It is generally acknowledged that legality is not a synonym for Sustainable Forest Management, and that what is sustainable may not always be legal. Some examples of what have been considered illegal forestry activities are shown opposite.

Examples of illegal forestry activities

Illegal activities can generally fall into two broad categories: illegal origin (ownership, title or origin), and lack of compliance in harvesting, processing, and trade. The following are examples of activities that have been identified and/or included in some further definitions of illegal logging (Contreras-Hermosilla, 2002; Miller et al., 2006; GFTN, 2005).

Illegal origin (ownership, title, or origin)

- Harvesting of wood in protected areas without proper permission (e.g. in national parks and preserves). This may include instances where authorities allocate harvesting rights without properly compensating local people.
- Logging protected species.
- Logging in prohibited areas such as steep slopes, riverbanks and water catchments.
- Harvesting wood volumes below or above the limits of the concession permit as well as before or after the logging period stated in the harvesting licence.
- Harvesting wood of a size or species not covered by the concession permit.
- Trespass or theft, i.e. logging in forests without the legal right to do so.
- Violations, bribes and deception in the bidding process to acquire rights to a forest concession.
- Illegal documentation (including trade documents).

Lack of compliance throughout the supply chain (harvesting, manufacturing, and trade)

- Violations of labour laws (e.g. illegal labour, underpaying workers, etc.) and violation of legally protected traditional rights of local populations and indigenous groups.
- Violation of ratified international human rights treaties and conventions.
- Wood transported or processed in defiance of federal, state, or provincial laws.
- Violations of international trade agreements (e.g. CITES species).
- Failure to pay legally prescribed taxes, fees and royalties.
- Illegal transfer pricing (e.g. when it is to avoid duties and taxes), timber theft, smuggling.
- Money laundering.
- Failure to fully report volumes harvested, or reporting different species for tax evasion purposes.

Different definitions of illegal logging can lead to different estimates, which makes addressing the problem more difficult (Contreras-Hermosilla et al., 2007; Rosembaum, 2004). Defining illegal logging is not only a technical issue, but one with potentially far-reaching political implications (Contreras-Hermosilla et al., 2007).

Understanding legality in a forestry context

- Legality is not an issue in every country. A pragmatic approach may be to begin by identifying regions/countries at higher risk, and then focusing efforts on aspects of concern within those areas (e.g. corruption, lack of law enforcement, social conflict, etc).
- Legality issues vary in severity. Lack of compliance with minor administrative regulations may not have a significant impact on sustainability. It is desirable, but difficult, to focus on significant infractions.
- There are also cases when the law is not seen by everyone as equitable or fair (e.g. people with traditional claims to the land). Conversely, in some places, laws protecting customary rights are not enforced or are ignored.
- Verification of compliance with all national laws can be impossible. A pragmatic way to address this is to look for citations and fines to establish whether violations are merely oversights or form a pattern of major violations with serious impacts on sustainability.
- It is difficult to prove legality beyond good title because legal systems document non-compliance (i.e. citations, fines), not compliance. Transfer of title, however, is commonly documented through bills of lading and other negotiable instruments. Even for title, however, the risk of forged documents can be significant in some places. At a minimum, documents should carry all appropriate stamps and seals from the relevant governmental agencies.

Illegal logging is a fundamental problem in certain nations suffering from corruption or weak governance. International trade is one of the few sources of influence sufficient to create the political will to make improvements. Several international processes have taken up this issue, and national efforts have started to appear as a result. During the last five to 10 years, illegal logging and illegal trade have risen to the top of the international forestry agenda.

Illegal logging of wood and paper-based products entails a complex set of legal, political, social, and economic issues. Poverty, lack of education, financial issues, population growth, and weak governance are all enabling factors for illegal activity. Illegal activity has many drivers that make it challenging to address this issue. These drivers are often associated with a range of items from short-term economic gain to local and national actors, including communities and governments:

- Local (and often national) governments may receive higher revenues as a result of illegal land conversion and increased timber production.
- Because illegally logged wood can be sold at lower prices, it depresses the profitability of legally harvested wood while improving the competitiveness of industries that use illegal wood.
- Many people may derive an income from illegal forest activities.

Illegal logging and illegal trade can create serious problems:

- Government revenue losses – the World Bank estimates that governments lose revenue equivalent to about US\$ 5 billion a year (World Bank, 2002A).
- Unfair competition – market distortion and reduction of profitability for legal goods; the World Bank puts this cost at more than US\$ 10 billion a year (World Bank, 2002A).
- Increased poverty – occurs indirectly when governments lose revenues.
- Support and funding of national and regional conflicts.
- Unplanned, uncontrolled and unsustainable forest management.
- Destruction – areas important for biological conservation, ecosystem services, and local livelihoods.



Recent changes to key legislation to address legality

United States: The Lacey Act

The Lacey Act was amended by The Food, Conservation, and Energy Act of 2008 and effective May 22, 2008. It expanded its protection to a broader range of plants and plant products (Section 8204. Prevention of Illegal Logging Practices). The Lacey Act makes it unlawful to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce any plant in violation of the laws of the United States, a State, an Indian tribe, or any foreign law that protects plants. (US Department of Agriculture, 2008)

European Union: Forest Law Enforcement Governance and Trade (FLEGT)

In October 2008, the implementation modalities of the FLEGT licensing schemes for imports of timber into the European Community were adopted with the Commission Regulation No 1024/2008. One of the cornerstones of the FLEGT Action Plan are Voluntary Partnership Agreements (VPA) with producer countries suffering from problems of illegal logging and poor forest governance. Once agreed to, VPAs are legally binding on both parties and aim to ensure that only legally sourced timber is exported to the EU. They support and focus on improving national governance and regulation of the forestry sector, and include a licensing scheme to verify timber legality. Ghana and the Republic of Congo are currently within the VPA system, and several countries are in negotiation (Malaysia, Cameroon, Indonesia, Liberia and Central African Republic). Banks may consider the presence of a VPA when creating country risk profiles, because states with VPA agreements may pose lower risks.

However, VPAs have their limitations. As bilateral agreements, their reach is limited. Illegal timber can still be transported to the EU through circumvented routes, e.g. illegal timber can be transported legally to VPA partners, processed with legal timber and exported as licensed timber.

Case study example

The following text is extracted from a WWF/WBCSD pilot project, “Developing best wood tracking practices to verify legality of wood origin in Latvia”, conducted in 2005 with seven companies. It summarises a possible approach for companies to use when sourcing timber from high risk areas.

All seven respondents have their own wood origin tracking system. Some companies included wood tracking systems in their third party verified management systems (for example ISO 9001, ISO 14001). Almost all respondents have also Forest Stewardship Council (FSC) and/or the Programme for the Endorsement of Forest Certification Systems (PEFC) certified chain-of-custody systems in place for certified wood. Wood tracking systems require companies, contractors and suppliers to take additional voluntary actions to track and verify wood origin information in addition to the legal requirements.

Most respondents based their system on:

- Wood transportation waybill;
- Agreement with supplier;
- Cutting licence;
- Supplier and forest audits.

1. Wood transportation waybill

A Wood transportation waybill is a legal shipping document issued by the authorities that must accompany every load or transaction of wood, and contains information about cargo owner, specification and volume, place of loading and unloading. Wood volume and value are verified after wood is delivered and measured.

2. Agreement with supplier – Environment clauses

All respondents use agreements with suppliers stating the specific wood origin and delivery information required by the buyer, such as:

- Wood is procured in a legal way;
- Data on origin of wood is available in a database or archive and can be presented on request;
- Wood origin information can be verified;
- Special requirements for wood from protected areas must be met and may be verified;
- The supplier takes responsibility for the activities of sub-suppliers and contractors;
- The supplier has an environmental policy and it is available for review;
- The rejection of non-acceptable wood discharges the buyer from the delivery contract.

3. Cutting licence

The cutting licence is a legal document issued by the State Forest Service to the forest owner and allows cutting to begin. It also requires post-cutting reporting to authorities. The State Forest Service issues cutting licences if forest conditions and status meet legal requirements. The licence indicates forest owner and property name, land register number, felling area and location information, logging type, main tree species and volume.

Companies purchasing wood verify the cutting licence to determine that logging in a particular area was legitimate. It also allows companies to locate the area where the wood was cut and check logging conditions. It is a key element in wood tracking systems.

4. Auditing of suppliers

Audits by the purchasing company verify the information delivered by the supplier, including wood origin, forest management practices and the supplier's compliance with agreements. Respondents use different types of auditing systems to assess the data on origin and legality:

- The way supplier collects and files wood origin data;
- The reliability of the stored data;
- The buyer's own wood origin data filing system;
- Forestry practices in logging area (legislation and instructions);
- Biodiversity aspects in logging area;
- Supplier's legal status;
- Authenticity of the cutting licence.

5. Wood origin documents – Summary

The wood transportation waybill, agreement with suppliers and cutting licence, combined with the audit function comprise supply chain management to verify the origin of wood. Additional company requirements exceeding the law are:

- Clauses in wood purchasing agreement requiring suppliers to know the origin of wood and that the purchase and harvesting operations are legal;
- Proof of wood origin and legality in the wood cutting licence based on physical copy of the cutting licence and inclusion of cutting licence number on all wood transportation waybill;
- Inclusion of cutting licence number on all wood transportation waybill.

Verification of Legal Origin (VLO) / Verification of Legal Compliance (VLC)

VLO and VLC are independent third-party verifications of the legality of the sources of raw materials present in wood products.

VLO provides assurance that the timber has been harvested according to all legal requirements of the jurisdiction governing the concession, such as applicable permits, planning approvals and payment of royalties.

For some companies, third-party assurance of legal origin may serve as the first step in obtaining formal certification or undertaking a stepwise approach to certification.

VLC is an extension of VLO, as it assures that the timber harvesting complied with the full range of legal frameworks related to forestry, including environmental protection, wildlife, water and soil conservation and worker health and safety.

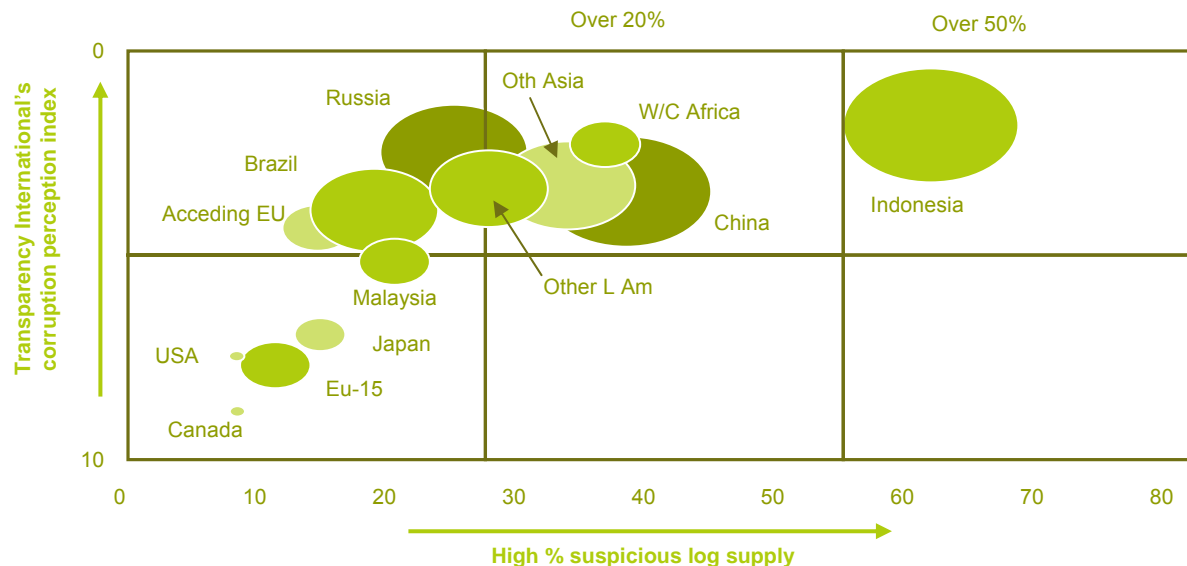


Regions most at risk of illegal logging

Between eight and 10% of global wood production is estimated to be illegally produced, although the great uncertainty of these estimates is also acknowledged. Most of this illegally produced wood is used domestically, although a significant portion enters the international trade either as finished products or raw materials (Seneca Creek and Wood Resources International, 2004). Estimates of illegal logging in specific countries and regions vary depending on the nature of the activity and the variability of laws and regulations (Figure 3).

In a widely accepted, in-depth multi-country study, Seneca Creek Associates and Wood Resources International compared corruption and illegal logging activity. In the graph below, the y-axis displays Transparency International's Corruption Perception Index (CPI), where corruption tends to be higher (i.e. having lower CPI) in countries with lower per capita incomes. The x-axis displays the proportion of the total supply of suspicious logs, while the size of a bubble shows the absolute volume of suspicious logs that reach the market in a country or region, including imported logs.

Figure 3. Corruption and illegal logging activity (2004)



Source: Seneca Creek Associates and Wood Resources International (2004).

Key due diligence questions on legality

- Have there been any legal claims associated with its operations?
- Does management know of any legality issues in the supply chain, the company's own operations, local region or customer operations?
- Is there reliable publicly available information about illegal logging concerns related to the company?
- What governance arrangements and procedures are in place to manage legality risks, and does this extend to the supply chain?
- Has the company developed a policy on legality (e.g. requiring trading partners to have legal title, requiring warrantees or indemnification for illegal activity)?
- Is the company participating in international collaborative measures to combat illegal logging?
- Wood tracing systems (e.g. Chain of Custody programmes) are a key weapon against illegal trade in forest products: is the company employing credible wood tracing systems to tackle significant risks?
- Certification is a key weapon against illegal logging: is the company working systematically towards certification for all its forestry operations?

What is the issue?

There is growing recognition of the importance of small and community-based forest enterprises as key players in meeting the challenges of the forestry sector.

These enterprises are owned and managed by individual farmers, local community groups or forest-dependent people, and involve a range of forest products and services.

Local community and forest dwellers' access to greater economic and social benefit is a growing discussion within the topic of sustainable forest management. Small scale and community forest enterprises have the potential to reduce poverty while enhancing environmental accountability and promoting sustainable resource management. They also support the preservation of local and indigenous cultures, and promote entrepreneurship.

Key Challenges

Forest areas controlled or managed by local communities have grown significantly, and there are many initiatives and programmes designed to promote community forests. However, these small enterprises face many difficulties. According to organisations involved in promoting community forestry initiatives, key challenges facing small scale and community forest enterprises include:

- Insecure land rights
- Difficult policy environment (e.g. too much bureaucracy)
- Lack of bargaining power
- Lack of access to legal knowledge
- Insufficient business knowledge and management capabilities
- Difficulties accessing credit
- Lack of access to technology

These challenges make it difficult for small and community based forestry enterprises to access credit from the private sector. Successful financing efforts provide for investments in human and infrastructure resources to address these challenges. Integrating secure land ownership and use rights, developing management capabilities and gaining access to legal support can improve the likelihood of a successful financing partnership.

Fairtrade Timber

Obtaining a fair price for wood is vital to small and community based forestry enterprises. Current certification schemes do not differentiate or provide a fair price for such initiatives.

A new initiative has been introduced by FSC and Fairtrade to explore this possibility. FSC and Fairtrade launched a pilot project in 2009 to create a FSC-Fairtrade dual certification system for community based forest products in the marketplace. The aim of this new initiative is to generate greater economic benefits for local communities.



What is the issue?

Sustainable Forest Management (SFM) is a management regime that integrates and balances social, economic, ecological, cultural, and spiritual needs of present and future generations (United Nations, 1992).

Understanding sustainable forest management

Essential aspects of SFM include the following:

- **Economic** – the forests' capacity to attract investment and support economically viable forest uses in the present and the future is undiminished. The forest is not used beyond its long-term capacity for production of wood, and non-wood forest products.
- **Social** – include a variety of aspects such as:
 - The rights of indigenous peoples and local communities are respected and protected
 - Forest workers are healthy, safe, and their rights are protected (e.g. freedom of association, right to bargain, child labour, forced labour, equal remuneration and non-discrimination)
 - Local communities, including indigenous peoples, benefit economically from forest management
 - Sites of religious, spiritual, archaeological, historic, as well as of aesthetic and recreational, value are preserved.

- **Environmental** – forest use protects biodiversity (ecosystems, species, genes and ecological processes) and the capacity to maintain ecosystem processes and services such as watershed protection, pollination, protection against mudslides, aesthetic beauty, carbon storage, etc.

SFM, legality and certification

- 'Legally harvested' does not necessarily mean 'sustainably produced' or 'sustainably managed' because laws are sometimes insufficient to guarantee SFM, or are inadequately enforced. See the [Legality issue briefing note](#).
- Forest land can be sustainably managed without being certified by a forest certification system. Producers may not pursue forest certification if they perceive the costs of the process as outweighing the price premium offered for certified products.
- In general then: SFM may comprise both regulatory and voluntary (e.g. certification) components.

How major international certification schemes address selected aspects of SFM

	Forest Stewardship Council (FSC)	Programme for the Endorsement of Forest Certification Schemes (PEFC)
Social issues	Four principles of the FSC system include various social concerns: tenure and use rights and responsibilities, indigenous people's rights, community relations, and workers' rights. The principle related to high conservation value forests (HCVF) also addresses social aspects for areas of archaeological, historical or cultural value. Standard-setting processes at the national and sub-national level are conducted in a transparent way and involve all interested parties.	Requires compliance with ILO core conventions. Pan-European Operational Level Guidelines (PEOLG) criteria and indicators address issues of occupational safety and health as well as accessibility to recreation and maintenance of sites with cultural or spiritual values. ATO/ITTO criteria and indicators for SFM require that legal and customary rights of local populations with respect to ownership, use and tenure are clearly defined, acknowledged and respected, as well as engagement with informed stakeholders (PEOLG, ATO/ITTO Principles, criteria and indicators for SFM of African natural tropical forests).
Special places	Principle 9 addresses high conservation value forests (HCVF), which are areas to be managed in such a way that these values are maintained or enhanced. HCVF include: <ul style="list-style-type: none"> • Forests that contain globally, regionally, or nationally significant concentrations of biodiversity values • Globally, regionally, or nationally significant large landscape level forests • Rare, threatened or endangered ecosystems • Forest areas providing basic services of nature in critical situations • Forest areas fundamental to meeting basic needs of local communities • Forest areas critical to local communities' traditional cultural identity 	Forest management should maintain or enhance biodiversity, and protect soil and water. Sites of historical or spiritual significance should be respected and protected as specified by international guidelines and standards (PEFC, 2006 D). Different requirements specified by international standards, criteria and indicators and requirements for SFM, for instance: PEOLG Criterion 4.2i – special key biotopes in the forest such as water sources, wetlands, rocky outcrops and ravines should be protected or, where appropriate, restored when damaged by forest practices.
Chemicals	Principle 6 of FSC addresses chemicals. Chemicals should be minimised. Integrated Pest Management (IPM) is the preferred approach, i.e. to minimise chemical use through the use of alternative prevention and biological control techniques. Documentation, monitoring, and control are required, and certain chemicals are banned.	Use of pesticides and herbicides should be minimised, used in a controlled manner, and take into account appropriate silvicultural alternatives and other biological means. Compliance with PEOLG, ATO/ITTO criteria and indicators for SFM, as well as various ITTO guidelines for SFM (PEFC, 2007).
Clearcuts	Principle 6 of FSC addresses clearcuts. Restrictions on size and location vary among national/regional standards as long as ecological functions and values are maintained intact, enhanced or restored.	Management plans – including clearcutting – should be based on legislation as well as existing land-use plans, and adequately cover forest resources. Regeneration, tending, and harvesting should be carried out in time and in a manner that does not reduce the site's productive capacity (MCPFE, 1998).
GMOs	Use of GMOs is prohibited; addressed in Principle 6 of FSC.	GMOs cannot be considered as part of certified material (PEFC Council General Assembly held on October 2005).
Exotic species	Addressed in Principle 6. Exotic species are permitted, but not promoted. Careful monitoring is required to avoid adverse environmental impacts.	As required by PEOLG, native species and local provenances should be preferred where appropriate. Introduced species, provenances or varieties producing negative impacts on ecosystems and on the genetic integrity of native species and natural provenances should be avoided or minimised as should those not thoroughly evaluated (MCPFE, 1998).

Forest conversion and land-use change

Deforestation caused by land-use change reduces the area under forest. The United Nation's Food and Agriculture Organization (FAO) defines deforestation as 'The conversion of forest to another land use or the long-term reduction of the tree canopy cover below the minimum 10% threshold' (FAO, 2001). Deforestation occurs when forest areas are transformed to other land uses such as:

- **Agriculture:** this includes shifting cultivation (traditional and colonist shifting cultivation), permanent cultivation (subsistence or commercial cultivation), and cattle ranching (small and large-scale cattle ranching). Agricultural expansion can replace native forests with pasturelands and crops. Palm oil, soy crops, and likely fuel crops in the near future, are considered the leading proximate cause for forest land-use change in the tropics.
- **Human settlement:** urban development, colonisation, transmigration and resettlement (spontaneous transmigration, estate settlement, industrial settlement, urban settlements).
- **Infrastructure:** transport infrastructure, market infrastructure (mills, food markets, storage, etc.), public services (water, sanitation), hydropower, energy and mining infrastructure.

Forest conversion happens when a 'natural' forest is transformed into a highly cultivated forest, often with introduced tree species and control of the hydrological and nutrient regime with a focus on wood production. FAO's definition of deforestation specifically excludes areas where the forest is expected to regenerate naturally or with the aid of forest management measures following harvesting.

Over time, a significant amount of the world's forest lands have been converted to other land uses. In the northern latitudes, most of this change in land use occurred in the past. In some cases natural forests have re-established themselves in these areas; in others, forests have been planted. The managed forests we see today are often influenced by historical land uses, such as grazing or agriculture.

In financing the production of wood and paper-based products from forest areas that are being legally converted to another land use (e.g. as part of governmental land zoning policies), it is advisable to fully understand the circumstances for countries with insecure land tenure. The risk of corruption, illegalities, violations of indigenous people's rights, and other issues, may be high depending on the particular area of concern. It is advisable to ensure that those involved in such a change process do it in a way that is transparent, mindful of the needs and perspectives of different local stakeholders, well planned and informed, and with safeguards and measures to remedy negative impacts.

Key due diligence questions on sustainable forest management

- Is the company involved in land-use change or forest conversion?
- Does management know of any current sustainability issues in the supply chain, the company's own operations, local region or customer operations?
- Is there reliable publicly available information about SFM issues, including forest conversion or land-use change related to the company?
- Has the company developed a policy on SFM?
- Has the company participated in international collaborative measures to encourage sustainable forest management?
- Wood tracing systems (e.g. Chain of Custody programmes) are a key measure to ensure that forest products come from sustainable sources: is the company employing credible wood tracing systems to tackle significant risks?
- Certification is a key measure to encourage SFM: is the company working systematically towards certification for all its forestry operations?



What is the issue?

For the purposes of this briefing note, the term 'special places' is used as a generic term for areas with unique qualities within the forest landscape that typically need special attention and treatment. Depending on their features and significance, these places can be identified at different scales (e.g. global, regional, local scale).

There is no universally agreed-upon definition of special places. Existing definitions combine scientific and political dimensions. The Equator Principles for example, refer to IFC Performance Standard 6: Biodiversity Conservation and Sustainable Natural Resource Management, which cover a range of topics including critical habitats, legally protected areas, natural habitats and natural and planted forests.

In general, different stakeholders deem a forest 'special' if it includes one or more of the following characteristics:

Biological, ecological and landscape features

- Species richness: number of species within a given area
- Species endemism: number of species found exclusively in that location
- Rarity: species and/or ecosystems that are naturally rare
- Representation: a site that represents all of the different ecosystems in the area of concern
- Significant or outstanding ecological or evolutionary processes, such as key breeding areas, migration routes, unique species assemblages, and so on
- Special species or taxa: presence of an umbrella, keystone, indicator, flagship species or species of concern, whether at risk or believed to be
- Critical habitats: areas of high biodiversity value

Conservation features

- Threatened species: species that have been identified as threatened or endangered
- Species decline: species whose populations have undergone significant decline in recent years
- Habitat loss: areas that have lost a significant percentage of their primary habitat or vegetation
- Fragmentation: areas that have lost connectivity and have been fragmented into smaller pieces
- Large intact areas: areas within a certain minimum size with no or minimal human influence
- Level of threat: areas facing high or low pressure from human populations or development
- Places considered to have rare and exceptional scenic and aesthetic features

Ecosystem services

- Ability to supply basic and/or critical services such as watershed protection, erosion control, and fire/flood control among others

Cultural, livelihood, historical and spiritual features

- High value to the people who live within or around the site (e.g. for reasons of religion, history, cultural identity, or dependency for livelihoods); these include religious, historical and archaeological sites
- Critical significance to the traditional cultural identity of a local community
- Critical to maintaining local people's livelihoods

Protected areas – where are they?

Protected areas are locations that receive protection because of their environmental, cultural or similar value. Countries often have extensive systems of protected areas developed over many years. These systems vary considerably country to country, depending on national needs and priorities, and on differences in legislative, institutional and financial support.

The World Database on Protected Areas (WDPA) uses the definition of a protected area and marine protected area (MPA) as adopted by IUCN as the main criteria for a location's entry into the database.

Definition of a protected area:

An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.

Source: IUCN (1994). Guidelines for Protected Areas Management Categories. IUCN, Cambridge, UK and Gland, Switzerland. 261pp.

The WDPA is currently the most comprehensive available global spatial dataset on marine and terrestrial protected areas.

It contains crucial information from national governments, non-governmental organisations, academic institutions, international biodiversity convention secretariats and many others.

It is used for ecological gap analysis, environmental impact analysis and is increasingly used for private sector decision-making.

<http://www.wdpa.org>

Three further example definitions for special places are shown below. A longer list of definitions from a variety of stakeholders is included in [Appendix 1](#).

Table 1: Definitions related to special places.

Developed by	Definition	Characteristics	Management preferences	Notes
Conservation International	Biodiversity hotspots (Conservation International, 2007)	Hotspots are priority global areas for conservation. Hotspots are characterised by exceptional levels of plant endemism (at least 1,500 species of vascular plants) and by serious levels of habitat loss (lost at least 70% of its original habitat). Worldwide, 34 biodiversity hotspots have been identified. Collectively, these hotspots are estimated to house high levels of biodiversity, including at least 150,000 plant species as endemics and 77% of the world's total terrestrial vertebrate species.	Conservation can be carried out through a variety of approaches, including the establishment of protected areas and the implementation of economic alternatives.	Conservation outcomes identified for individual hotspots are defined through regional-scale planning processes; maps of biodiversity hotspots and species databases are available at www.biodiversityhotspots.org .
FSC	High conservation value forests (HCVF) (FSC, 1996)	<ul style="list-style-type: none"> • Forests that contain globally, regionally, or nationally significant concentrations of biodiversity values • Globally, regionally, or nationally significant large landscape-level forests • Rare, threatened or endangered ecosystems • Forest areas providing basic services of nature in critical situations • Forest areas fundamental to meeting basic needs of local communities • Forest areas critical to local communities' traditional cultural identity 	Management to maintain or enhance features of these forests.	A variety of tools have been developed to assist identifying these sites including: <ul style="list-style-type: none"> - a toolkit (www.proforest.net) - a resource network (www.hcvf.org) - a sourcebook (www.proforest.net) - There are various efforts to identify HCVFs in Indonesia, Russia, Romania and other countries.
IFC	Critical Natural Habitat, IFC	<p>"Critical habitat is a subset of both natural and modified habitat that deserves particular attention. Critical habitat includes areas with high biodiversity value, including habitat required for the survival of critically endangered or endangered species; areas having special significance for endemic or restricted-range species; sites that are critical for the survival of migratory species; areas supporting globally significant concentrations or numbers of individuals of congregatory species; areas with unique assemblages of species or which are associated with key evolutionary processes or provide key ecosystem services; and areas having biodiversity of significant social, economic or cultural importance to local communities."</p> <p><i>IFC definition of Critical Natural Habitat</i></p>	<ul style="list-style-type: none"> • There are no measurable adverse impacts on the ability of the critical habitat to support the established population of species • There is no reduction in the population of any recognised critically endangered species • Any lesser impacts are mitigated 	IFC performance standards on critical habitats should be applied during the social and environmental assessment process, while implementation of the actions necessary to meet the requirements of this performance standard is managed through the client's social and environmental management system. Based on the assessment of risks and impacts and the vulnerability of the biodiversity and the natural resources present, the requirements of the performance standards are applied in all habitats whether or not those habitats have been previously disturbed and whether or not they are legally protected

Special places and legality

Some special places are legally protected, but this is not always the case. There can be several reasons for the lack of legal protection:

- The uniqueness of a site may not have been identified, either because of insufficient inventory efforts or because science has improved since the last inventory was made.
- The political and administrative process to secure protection can be slow. Another possibility is that the law does not contain provisions for protecting special places of this particular type.
- The site may be private property or otherwise of important economic value to a community. Incentives to gain support for special designation may be lacking.
- An assessment process may have concluded that the area is not sufficiently special to warrant protection.
- Stakeholders may differ in their opinion of what qualifies as a special place.
- A forest management company may have identified and protected a specific area from harvesting within its Forest Management Unit (FMU), but may not yet have applied for, or received, legal protection.

While there is general agreement that forest management should respect legally protected areas, the situation can be unclear and complex when a legally unprotected area is claimed as a special place. There are several possibilities:

- The area may have been identified as special and an official government-led initiative is underway to protect it. In this case voluntary protection efforts are needed to maintain the special values of the area until it gets official protection. These can include protection measures by land managers. There may also be marketplace pressures to reject wood products harvested from the area, regardless of its legal status. This may or may not contribute to protection, depending on community reaction, and its effect on government decision-makers.

- The area may not be slated for official protection. A stakeholder conflict may then ensue, with some environmental and/or indigenous groups trying to enforce 'market protection' of the site pending a change of minds by the authorities. In some cases, such conflict has led land managers to agree to a logging moratorium, pending government consideration. In others it has had no effect or led to disinvestment or land sales.

In either case, land ownership or tenure is significant. A public or large owner may have a greater capacity to absorb a reduction of the productive land base than a small private landowner, but also may be more affected by perceived instability. Cooperation among small private landowners, such as pursuing group certification, may effectively take care of the special place. Boycott campaigns do not always have local support, and can create a political backlash against the customer and other stakeholders.

Responding to issues around special places

Different stakeholders, including mainstream certification standards, have coined different definitions of special places (Table 1). With few exceptions, the areas that correspond to these definitions have not been mapped, making it difficult to analyse the extent to which they overlap. Along with the definition, stakeholders have recommended management regimes for these special places, including:

- **Precautionary management** – ensuring that special values are identified and protected before management plans are developed.
- **Sustainable Forest Management (SFM)** – integrating and balancing environmental, social and economic aspects across the landscape. Small-scale adaptations of management to promote conservation that do not significantly reduce the economic potential of the land, e.g. through protection of so-called key woodland habitats, are usually considered an inherent part of good forest management.

- **Conservation management** – managing to retain or enhance the ecological and biological values, which may or may not include limited timber harvesting.
- **No management at all** (i.e. leaving the forest by itself).
- **A combination of all of these across the larger landscape.**

The diversity of definitions of special places and definitions of forest in general is a major concern. International organisations such as FAO, International Union of Forest Research Organizations (IUFRO), Center for International Forestry Research (CIFOR) and UNEP have compiled forest definitions (FAO, 2002A) but do not offer any generally accepted definition for special places. The lack of a universally agreed-upon definition of special places is a major concern, and the stakeholder support for each definition varies.

Some forestry companies have used the following steps to overcome potential issues around special places:

- **Engagement with stakeholders** to develop a common platform of definitions and a common process for mapping of conservation values and/or field inventory.
- **Reference to, or engagement with, third-parties** to define and map special places.
- **Pursuit of legal opportunities** to protect special places by engaging in land transfers to government or conservation organisations or establishing conservation easements.
- **Some global maps of special places exist**, and they can be used to identify areas where a site-specific evaluation should be performed. Governmental action to identify special places (through zoning and land-use planning processes) can also provide due process for those affected, and may provide compensation or spread the costs equitably.

Key due diligence questions on special places

- Is the company aware of any areas under its management that might qualify as 'special places'?
- Has the company been lobbied by interested parties or been subject to media coverage raising concerns over the handling of 'special places'?
- What procedures are in place to establish the existence of 'special places' before commencement of forestry activities?
- Has the company developed a policy to ensure the protection of 'special places'?
- Is the company participating in international collaborative measures to identify and protect 'special places'?
- Wood tracing systems (e.g. Chain of Custody programmes) can be a useful tool to assess whether special places have been adversely impacted on in the supply of forestry products: is the company employing credible wood tracing systems to tackle significant risks?
- Certification is a key weapon in the fight to protect the world's special places: is the company working systematically towards certification for all its forestry operations?



What is the issue?

'Planted forests' comprise all forms and scales of forests resulting from deliberate tree planting and seeding. Planted forests include plantation forests, planted semi-natural forests, and various forms of agroforestry. Planted forests are established for many purposes, including amenity, environmental services, and fuel- or industrial-wood production. Just over half of the world's 270 million ha of planted forests are plantation forests, established for production or protection.

Plantation forests are typically even-aged monocultures or forests of a few species of trees grown in blocks at regular spacing, although their scale and form can vary. There are 140 million ha of plantation forests globally, of which nearly 80% are production-orientated. The global extent of plantation forests has been increasing by an average of 2% annually, with most new plantations being established primarily for wood production. The proportion of the world's industrial wood sourced from plantation forests has increased from negligible a century ago to more than a third today; it is expected to continue to increase, to nearly 50% by 2040.

More than 25 million ha of plantation forests are 'intensively managed' for industrial wood production. Intensively-managed planted forests (IMPF) are those of relatively high productivity, in which the owner makes a sustained investment, over the life of the forest, to optimise industrial wood production.

While planted forests can clearly play a significant role in securing the supply of industrial wood, their ability to deliver other ecosystem services such as maintaining nutrient capital, protecting watersheds, preserving soil structure and storing carbon, is less certain and depends to a large extent on where they are situated and the way in which they are managed.

Sustainability issues that need to be considered when financing forest plantations.

Advantages and disadvantages of plantations

Advantages	Disadvantages
<ul style="list-style-type: none"> • Can return degraded or worn-out lands to productive use and protect soil from erosion. • Can produce more wood, faster, requiring less land to produce a specified amount of wood. • Forest plantations enable landowners to take advantage of the newest forest technology and genetics. This results in greater yields and better prices, strong incentives for private landowners to continue to practice forestry on their lands. • Wood harvested from forest plantations is often very uniform in terms of species and size, thereby improving processing and manufacturing efficiency. • Can allow other native/natural forests to be managed for other uses, such as biodiversity, non-wood forest products, and aesthetics. • Greater economic value of plantations can keep forest land in forest use, where a natural forest may not be economically sustainable. 	<ul style="list-style-type: none"> • Limited biodiversity in single species plantations, resulting in reduced wildlife habitat and ecosystem value. Clearance of natural forests to establish plantations increases this impact. • Diseases and pests that target a particular tree species can have significant impacts in single species plantations. • Forest plantations often receive higher levels of inputs such as fertilizer and chemicals to control vegetative competition. Run-off, overspray and groundwater contamination can be issues if these practices are not carried out correctly. • Some forest plantations are established using non-native species. These plantations may not provide suitable habitat for local wildlife. If allowed to escape off-site, some non-native species may out-compete local tree species for available resources, and become a 'weed' or invasive species. • Rights of local communities and indigenous peoples may be compromised. Forest plantations often take over large areas of land that become unavailable to other users (e.g. fuel-wood collection, non-wood forest products) and can distort income distribution in households and communities. • Trees replacing grazing land may adversely affect groundwater levels.

Region	Land area (M ha)	Agricultural area (M ha)	Forest area (M ha)	Forest designated for production (M ha)	Productive planted forest area (M ha)	Total plantation area (M ha)	Production plantation area (M ha)	IMPF area (M ha)	Annual Rate of Plantation expansion 2000-5 (%)
Africa	2,963	610	635	193	12	13	11	1	0.7
Asia	3,098	1,674	576	255	86	65	44	5	3.1
Europe	2,260	478	1,001	732	63	28	22	0.5	0.8
North & Central America	2,144	1,160	706	45	28	18	18	6.5	1
South America	1,754	581	832	96	12	14	12	9	1.3
Oceania	849	465	206	22	4	4	4	3	2.1
Total	13,067	4,968	3,952	1,343	205	140	111	25	1.9
Global proportion of:	Land area	38%	30%	10%	1.50%	1%	0.80%	0.20%	
	Agricultural area		80%	27%	4%	3%	2%	0.50%	
	Forest area			34%	5%	3.50%	3%	0.60%	
	Production forest area				15%	10%	8%	2%	
	Productive planted forest area					70%	54%	12%	
	Plantation forest area						79%	18%	
	Production plantation forest area							23%	

Sources: Land area and forest area from FAO .2005. Forest Resource Assessment Global Tables – www.fao.org/forestry/fra2005/en/; Agricultural area 2005 from FAOSTAT - faostat.fao.org/site/377/DesktopDefault.aspx?PageID=377 (totals may not add because of rounding).

Location-specific risks

Spatial considerations vary according to the nature of the landscape. If the landscape has been in a highly modified state for a long period of time (i.e. not natural forest), as in Guangxi Province, China, the focus of conservation is likely to be at the stand level. Consequently, environmental protection-orientated activities will focus on management practices such as the protection of riparian zones (areas immediately adjacent to rivers, which are generally rich in biodiversity), prevention of soil erosion, and maintenance of site productivity. The necessity to identify areas of high (biodiversity) conservation value is not likely to be a significant concern, with the exception of areas important for migratory species. However, IMPF establishment and management could contribute to site rehabilitation and landscape restoration, as part of an integrated programme directed at these goals.

If the landscape has been highly modified within the past few decades, such as in Espirito Santo and Bahia States, Brazil, there is a strong imperative for the immediate application of the landscape approach to optimise the value of remnant areas important for conservation. In these particular examples, remnant native forests have legislative protection, and thus IMPF expansion is not occurring at the expense of native forests. In other cases where legislative protection may not be as strong, IMPF development should be guided by the landscape approach and protect all areas of high conservation value.

If IMPFs are being established in a frontier (or recently post-frontier) landscape (i.e. recently cleared natural or secondary forest) such as in Riau Province, Indonesia, the imperative for application of the landscape approach is the greatest and, invariably, the most challenging; the landscape approach is rarely applied as comprehensively or systematically as most stakeholders would wish.



Key actions in such contexts include the identification of forests and other areas of high conservation value, and implementation of measures to ensure that these areas remain protected from conversion to other land uses.

In situations such as this, IMPF could be used effectively as a buffer for protected ecosystems. Decisions made at this stage of landscape transformation will have the greatest impact on the overall ecosystem integrity of the future landscape – both in terms of its biodiversity value (e.g. whether key species assemblages are maintained) as well as its supply of ecosystem services (e.g. hydrological cycle regulation, carbon balances).

Key messages

- Landscape in a highly modified state for a long period of time – focus on management practices (e.g. protection of riparian zones, prevention of soil erosion)
- Landscape modified within recent decades – focus on applying the landscape approach to optimise the value of remnant areas important for conservation (e.g. enhance connectivity between areas of native forest)
- Frontier or recently post-frontier landscape – greatest imperative to apply the landscape approach (e.g. identifying forest and other areas of high conservation value, protection from conversion to other land uses)

Planted forests and biodiversity restoration

After experiencing large-scale forest loss, several industrialised countries embarked on ambitious planted forest schemes that have provided a matrix for national biodiversity conservation strategies. In England, over 1 million hectares of non-native softwoods were planted between 1925 and the 1980s on low-quality agricultural land that had been without trees for hundreds of years. The 62,000-hectare Kielder Forest in northern England, originally planted with non-native Sitka spruce, was at one point the UK's largest (and among Europe's largest) manmade forest. In addition to its high timber yield – 1400 tonnes daily, responsible for supplying 5% of the UK's softwood requirement – Kielder has also played a role in wildlife and biodiversity conservation.

Since the 1980s, the planted forest has been restructured to form a mosaic that provides a multi-purpose forest landscape. Biodiversity enhancement efforts include planting of native broadleaf species, conservation and restoration of bogs, establishment of ponds and landscape corridors, and planting of tree species that provide food for endangered animal species. Conservation has become a key objective of forest management. A biodiversity assessment conducted by the Forestry Commission demonstrated that these planted forests offer favourable conditions to many native species, improve habitat quality, and make a significant contribution to future biodiversity in the UK.

Kielder Forest is also recognised as a key recreational asset to the estimated half a million visitors who come to utilise its extensive trail network. It serves as an example of the role that planted forests can play in wildlife conservation and recreation. Planted forest programmes that have made contributions to biodiversity have also been implemented in South Korea and Japan.

Sources: WWF International, IUCN, The World Conservation Union, Forestry Commission of Great Britain, 2003. Global Partnership on Forest Landscape Restoration: Investing in People and Nature.

Demonstration Portfolio: Kielder Forest, UK.

http://www.unepcmc.org/forest/restoration/globalpartnership/docs/United_Kingdom.pdf

Humphrey, J.W., Ferris, F. and Quine, C.P. eds, 2003. Biodiversity in Britain's Planted Forests: Results from the Forestry Commission's Biodiversity Assessment Project. Forestry Commission, Edinburgh.

Responsible management of planted forests

The Food and Agriculture Organization (FAO) suggests 12 principles for responsible management of planted forests

Institutional principles

1. Good governance
2. Integrated decision-making and multi-stakeholder approaches
3. Effective organisational capacity

Economic principles

4. Recognition of the value of goods and services
5. Enabling environment for investment
6. Recognition of the role of the market

Social and cultural principles

7. Recognition of social and cultural values
8. Maintenance of social and cultural services

Environmental principles

9. Maintenance and conservation of environmental services
10. Conservation of biological diversity
11. Maintenance of forest health and productivity

Landscape approach principles

12. Management of landscapes for social, economic, and environmental benefits

Source: FAO. 2007. Voluntary Guidelines: Responsible Management of Planted Forests.

www.fao.org/forestry/plantedforestsguide/en/

Inclusive Participation

In September 2008, the Forests Dialogue (TFD) Steering Committee unanimously agreed that TFD's future work to promote, convene and follow up dialogue on key forest issues would be:

1. Inclusive of rights-holders and stakeholders
2. Respectful and consent-based
3. Pro-active in engaging with the issues of marginalised groups
4. Learning-based
5. Building on existing knowledge and capability
6. Transparent
7. Efficient, agile and rapid
8. Focused on practical ways forward
9. Reviewed and adapted

The Forests Dialogue's IMPF process identified a series of practical actions that those engaged in IMPF investments and activities should implement.

1. Institutions financing or underwriting IMPF investments should:

- implement the Equator Principles, which are currently applied in only a minority of cases;
- institute more effective due diligence for IMPF-related investments;
- co-invest with governments to develop good governance structures and build capacity;
- encourage the use of independent certification as a means to assess social and environmental performance of the investments they support.

2. Businesses engaged in IMPF activities should:

- be proactive in exercising their corporate social responsibilities, in particular to address gaps in government's capacity and processes.
- This would include, but not be limited to:
- responsible project planning, following a systematic approach;
 - appropriate land-use planning, comprising:
 - a thorough assessment of ecosystem services associated with the project;
 - land acquisition and management following appropriate consultation with local communities and other stakeholders;
 - adopting a resource-prudent approach that matches investment in processing capacity to IMPF resource supply, rather than using it to leverage resource supply;
 - establishing effective stakeholder engagement and conflict resolution processes;

- advocating for the necessary basic legal infrastructure for engagement with, and participation of, indigenous peoples and local communities, and IMPF-based labour.

3. Governments, agencies, businesses and individuals engaged in IMPF activities should:

- pursue models of IMPF-based development that share benefits and costs equitably.

This means, but is not limited to:

- restricting investments to those where social and environmental costs do not exceed benefits;
- accepting that some landowners, including those with traditional rights, may choose not to engage in IMPF activities;
- fostering partnerships between stakeholders that promote and enhance the sustainability in economic, environmental and social terms of IMPF projects;
- committing to sustainable forest management, and its verification through credible certification schemes;
- developing locally-appropriate resource supply and labour participation arrangements that respect relevant ILO core labour standards;
- building the capacity of local communities to benefit from IMPF activities on terms of their choice.

Conclusions on Intensively Managed Planted Forests

It is apparent that IMPF:

- will play an increasing role in meeting global demands for wood and fibre products, which are growing with population and economic development;
- projects of appropriate scale, designed and managed to promote benefit sharing, can deliver social benefits;
- could contribute substantially to delivering critical environmental services at a range of scales, and that these services are becoming more rather than less important.

Conversely, it is also apparent that IMPF projects of inappropriate scale, and those that are poorly-conceived or managed, are likely to generate environmental and social costs that outweigh their benefits.

The role of IMPF in landscape restoration: Mondi's experience with Saint Lucia wetlands

Lake St. Lucia is the largest natural water body in South Africa and one of the largest estuarine systems on the African continent. The lake and its associated terrestrial, wetland and marine environments have long been regarded as valuable for nature conservation, and were included in two Wetlands of International Importance under the Ramsar Convention in 1975. Mondi, an integrated paper and packaging company, was awarded the government privatisation tender to lease and manage the public Safcol commercial timber plantations on the western shores of Lake St Lucia. The plantations were originally established by the state forest department four decades earlier, and parts were negatively impacting on the biodiversity as well as the water resources of the area. Reduced flows of freshwater to the narrow lake outlet to the sea posed a particular threat to biodiversity.

Given the environmental, economic and social importance of the area, Mondi and the Greater St Lucia Wetland Park Authority appointed a representative team of technical specialists to define a new eco-boundary that recognised the importance and functionality of the extensive wetland systems of Lake St Lucia and the bio diversity requirements of the associated iSimangoliso Wetland Park. The key wetlands were delineated and returned to the park together with some of the prized former grassland areas where 'sense of place' was an issue. The land is being rehabilitated to wetlands and grasslands, restoring soil and water conditions and encouraging biodiversity. Mondi retained enough of the commercial areas suitable for IMPF to establish a profitable plantation base, and the iSimangoliso Wetland Park gained 9,000 hectares (5,000 hectares from Mondi areas) of high conservation value ecosystems.

The net result is that today both the plantations and the park are thriving enterprises, and trust levels are high. Elephant, rhino, buffalo, cheetah and other game roam freely within the commercial forestry area, which forms a buffer between the Park, local communities and commercial farming areas. Sensitive wetland areas have returned to functionality and are supplying critical seep water for the St Lucia Lake system. Valuable ecosystems associated with the commercial plantation area have extended the habitat for many species in the iSimangoliso Park.

Source: Adapted from WBCSD. 2008. Case study. Mondi: The power of partnerships and symbiotic forestry.

Key due diligence questions on planted forests

The two principal concerns about forest plantations are:

1. They may replace natural forest areas or areas in the forest landscape with unique qualities:
 - how recently was the primary forest or other vegetation cleared prior to establishment or planned forest plantation?
 - what condition was the forest cover in before clearance?
 - what efforts have been made to ensure that special places, high conservation value forest and forest with value to local and indigenous communities are protected?
 - has the company considered whether species selection and / or use of genetic material may exacerbate or help resolve environmental pressures?
2. They may be established in areas with insecure land tenure and be inconsistent with local laws or customs regarding land occupation, or lack authorisation or support of local and indigenous peoples.
 - what prior consultation was carried out with local communities?
 - do legal or customary rights conflict with planned activities?
 - will compensation of affected communities be needed and if so, what arrangements have been made?
 - do just and fair methods exist to resolve disputes? Do local people have the resources and information to participate in dispute resolution?
 - what mechanisms exist to ensure that local communities benefits are guaranteed?
 - how are environmental functions protected to guard against soil erosion, flooding, pollution of watercourses etc.?

What's the issue?

Forest certification is a system for identifying well-managed forestland, and is widely seen as the most important initiative of recent decades to promote the sustainable management of the world's forests.

In this context, sustainability includes maintenance of ecological, economic, and social components. Products from certified forestland can, through chain-of-custody certification, move into production streams and in the end receive labelling that allows customers to know the product came from responsible sources.

The challenge

Despite the merits of the certification approach, take up has been slow. While approximately 300 million ha have undergone credible third-party certification this is less than 10% of the total and much of the world's forests, particularly in tropical regions, remain vulnerable to over-exploitation.

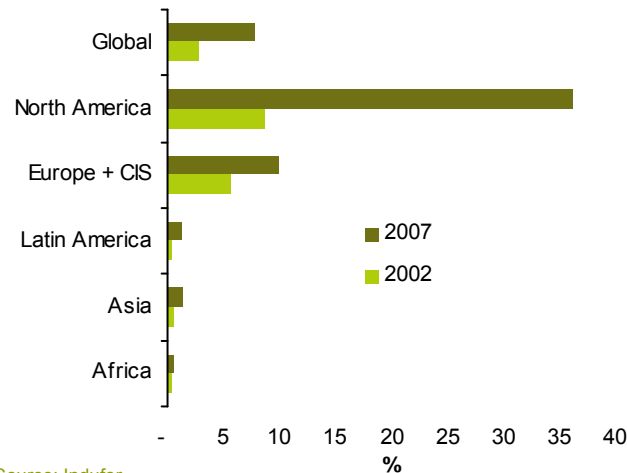
Understanding the two major international certification systems

There are two major international forest certification systems: the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Certification Systems (PEFC). Both are used by community- and family-owned forests and large landowners and/or industrial operations. These systems have similarities, but they also have differences that are considered important by their respective constituencies. The choice of system varies by geography, and many forest companies are certified by both systems, depending on the location of their operations.

Table 2 provides an overview of the general characteristics of these two systems. Table 2 is not meant to be an exhaustive comparison.

Geographical distribution of certified forest

Figure 1: Percentage of forests certified, by region, 2002 and 2007



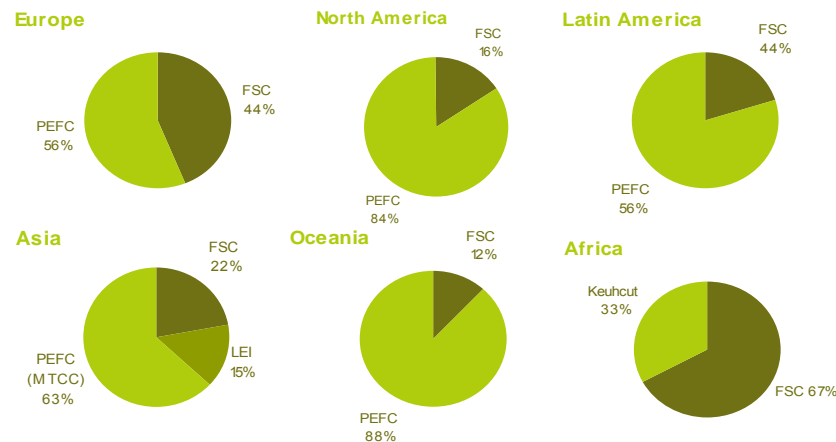
Source: Indufor

A proper comparison should include more detailed aspects such as compliance with international standards, system governance, accreditation, certification, criteria used as basis for the systems, and performance on the ground (Nussbaum and Simula, 2005).

CPET analysis

The differing certification schemes have their merits and weaknesses depending on the aims of the certification process and stakeholder point of view. The Central Point of Expertise on Timber Procurement (CPET) has provided analysis of how the certification schemes compare, which can be found at <http://www.proforest.net/cpet>

Figure 2: Regional application of the two major international certification systems



Source: Based on data from the FSC, the PEFC and notional systems elaborated by Indufor

Table 2: Comparison between FSC and PEFC certification.

	FSC	PEFC
Established	Established in 1993 at the initiative of environmental organisations.	Founded in 1999 in Europe, at the initiative of forest landowners as a certification system. PEFC later became an endorsement mechanism system.
Basic principle	<p>FSC is a system of national and regional standards consistent with 10 principles of SFM that cover the following issues:</p> <ol style="list-style-type: none"> 1. Compliance with laws and FSC principles 2. Tenure and use rights and responsibilities 3. Indigenous people's rights 4. Community relations and workers' rights 5. Benefits from the forests 6. Environmental impact 7. Management plans 8. Monitoring and assessment 9. Special sites – high conservation value forests (HCVF) 10. Plantations <p>These principles were developed by a global partnership of stakeholders convened by FSC. The principles apply to all tropical, temperate and boreal forests and are to be considered as a whole. All national and regional standards are derived in-country from the 10 principles. The principles are expected to be used in conjunction with national and international laws and regulations, and in compatibility with international principles and criteria relevant at the national and sub-national level (FSC Policy and Standards; principles and criteria of forest stewardship) (FSC, 1996). There is variation in regional standards and in interim standards adopted by auditing bodies.</p>	<p>PEFC is a mutual recognition mechanism for national and regional certification systems. Endorsed certification systems are to be consistent with internationally agreed environmental, social and economic requirements such as the Pan-European Operational Level Guidelines (PEOLG), the African Timber Organization (ATO) and International Tropical Timber Organization's (ITTO) Guidelines, as well as intergovernmental processes on criteria and indicators for SFM. The elements of SFM covered by these requirements may vary to fit the circumstances of the areas for which they were developed. For instance, the Pan-European Operational Level Guidelines cover the following:</p> <ol style="list-style-type: none"> 1. Maintenance and enhancements of forest resources and their contribution to global carbon cycles 2. Maintenance and enhancement of forest ecosystem health and vitality 3. Maintenance of productive functions of forests 4. Maintenance, conservation and enhancement of biodiversity 5. Maintenance and enhancement of protective functions in forest management 6. Maintenance of socioeconomic functions and conditions <p>Endorsed certification systems are expected to be consistent with international agreements such as ILO core conventions, as well as conventions relevant to forest management and ratified by the countries such as the Convention on Biological Diversity (CBD), CITES and others.</p> <p>There is variation among member certification standards, with some standards exceeding PEFC requirements (PEFC, 2006A).</p>
Components, members	All component standards carry the FSC brand. National initiatives currently exist in Argentina, Australia, Belgium, Bolivia, Brazil (interim standards), Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chile, China, Colombia, Croatia, Czech Republic, Cote d'Ivoire, Denmark, Democratic Republic of Congo, Ethiopia, Ecuador, Estonia, Finland, Gabon, Germany, Ghana, Hungary, Ireland, Italy, Japan, Mexico, Mozambique, Netherlands, Papua New Guinea, Peru, Poland, Romania, Russia, Slovakia, South Africa, Spain, Sweden, Switzerland, United Kingdom, United States, Vietnam, and Zambia (FSC website).	Component standards carry their own brand names, such as SFI in the US and the CSA in Canada. Recognised (endorsed) member country/systems include Australia, Austria, Belgium, Brazil (Cerflor), Canada (CSA), Chile (Certfor), Czech Republic, Denmark, Finland, France, Gabon, Germany, Italy, Latvia, Luxembourg, Malaysia (MTCS), Norway, Portugal, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom, and United States (the American Tree Farm System (ATFS) and SFI). PEFC endorses certification systems once they have successfully gone through the external assessment process using independent assessors (PEFC website). Other members include schemes from Belarus, Cameroon, Estonia, Ireland, Lithuania, Malaysia, Poland, and Uruguay.

	FSC	PEFC
Stakeholder scope	FSC is a multi-stakeholder-owned system; national standards are set by a consultative process in which economic, social, and environmental interests have equal weight (FSC website).	Multi-stakeholder participation is required in the governance of national schemes as well as in the standard-setting process, and PEFC requires decisions to be made by consensus (PEFC, 2006C).
Reach and extent	More than 112 million ha have been certified under FSC (as of March 2009) (FSC Website).	More than 223 million ha have been certified under the PEFC standards (as of March 2009) (PEFC website).
Chain-of-custody (CoC)	<p>The CoC standard is evaluated by a third-party body that is accredited by FSC and compliant with international standards.</p> <p>CoC standard includes procedures for tracking wood origin.</p> <p>CoC standard includes specifications for the physical separation of certified and non-certified wood, and for the percentage of mixed content (certified and non-certified) of products.</p> <p>CoC certificates state the geographical location of the producer and the standards against which the process was evaluated. Certificates also state the starting and finishing point of the CoC.</p> <p>(FSC policy on percentage-based claims, and various FSC guidelines for certification bodies)</p>	<p>CoC certificates are issued based on: (i) compliance with Annex 4 and with Appendix 1 of the TD, or alternative appendices approved by the PEFC council; (ii) member scheme's definition of origin that is compatible with Appendix 4 and Appendix 1 or alternative appendices; and (iii) member scheme's CoC standard that is compatible with Annex 4 and Appendix 1 or alternative appendices.</p> <p>Only accredited certification bodies can undertake certification.</p> <p>CoC requirements include specifications for physical separation of wood and percentage-based methods for products with mixed content.</p> <p>CoC certificates state the geographical location of the certificate holder; the standard against which the certificate was issued; and, identify the scope, product(s) or product group(s) covered (PEFC, 2006A, 2006C, D and F).</p>
Inclusion of wood from noncertified sources	<p>FSC's Controlled Wood Standard seeks to avoid:</p> <ul style="list-style-type: none"> (a) Illegally harvested wood (b) Wood harvested in violation of traditional and civil rights (c) Wood harvested in forests where high conservation values are threatened by management activities (d) Wood harvested in forests being converted to plantations or non-forest use (e) Wood from forests in which genetically modified trees are planted. All certification holders are required to fully implement requirements by 1 January 2008. (FSC, 2004C) (Botriell, 2007). 	<p>PEFC's mandatory Guide for the avoidance of wood from controversial sources seeks to avoid wood from illegal or unauthorised harvesting. Illegal harvesting includes harvesting in areas that are either protected by law or where a plan for strict protection has been officially published by the relevant government authorities, unless permission to harvest has been granted. This also implies issues such as workers' rights, health and safety, indigenous people's rights as protected by legislation (PEFC, 2006G).</p>
Verification	Requires third-party verification.	Requires third-party verification.

Key national certification standards

Country	PEFC endorsed	FSC National Standard in place	CPET approved*
Australia	Australian Forest Certification Scheme		
Austria	Austrian Forest Certification Scheme (2006)		
Belgium	Revised Belgian Forest Certification Scheme		
Bolivia		Bolivian Standard for Forest Management Certification of Brazil Nut (<i>Bertholletia Excelsa</i>).	
		Bolivian Standard for certification of forest management of timber yielding products in the low lands	
Brazil	Cerflor - Brazilian Program of Forest Certification	Brazilian Standard for Forest Management Certification On "Terra Firme" In the Brazilian Amazon	
Canada	CSA Sustainable Forest Management Program	Canadian Standard for Forest Management Certification in the Maritime Forest Region	CSA Sustainable Forest Management Program
		Canada, Regional Forest Management Certification Standards for British Columbia	
		Columbian Standard for Forest Management Certification of Natural Forests.	
		FSC Standard- National Boreal Standard	
Chile	CertforChile		
Colombia		Columbian Standard for Forest Management Certification of Natural Forests.	
		Colombian Standard for Forest Management Certification of Plantations	
		National Forest Stewardship Standard Standard for Colombia - Guadua (Bamboo)	
Czech Republic	Czech Forest Certification Scheme (2006)	National Forest Stewardship Standard for Czech Republic	
Denmark	Revised Danish Forest Certification Scheme (2007)	Standard for FSC Certification in Denmark	

* As an example of government procurement policies, the UK government has established a Central Point of Expertise on Timber (CPET), which is assessing the certification schemes most widely used to certify timber used in the UK to establish which provide adequate evidence of legality and sustainability. Users should note that the CPET review has only reviewed CSA, FSC, PEFC, MTCC, SFI at present.

Key national certification standards

Country	PEFC endorsed	FSC National Standard in place	CPET approved
Estonia	Estonian Forest Certification Scheme		
Finland	Finnish Forest Certification Scheme	National Forest Stewardship Standard for Finland	
France	French Forest Certification Scheme (2006)		
Gabon	PAFC Gabon Forest Certification Scheme		
Germany	Revised German Forest Certification Scheme (2005)	German Standard for Forest Management Certification	
GLOBAL	PEFC Global Standard	FSC Global Standard	FSC Global Standard / PEFC Global Standard
Italy	Italian Forest Certification Scheme		
Luxembourg	Luxembourg Certification Scheme for Sustainable Forest Management	FSC Standard for Luxembourg	
Malaysia	Malaysian Timber Certification Scheme (MTCS) – formerly MTCC		Malaysian Timber Certification Scheme (MTCS) – formerly MTCC
Netherlands		National Forest Stewardship Standard for the Netherlands	
Norway	Norwegian Living Forest Standard and Certification Scheme		
Papua New Guinea		National Forest Management Standard for Papua New Guinea	
Peru		Peruvian Forest Management Standards for the Production of Brazil Nuts (<i>Bertholletia Excelsa</i>)	
		Peruvian Standard for Forest Management Certification for timber products in the Amazonian forests	
Poland	Polish Forest Certification Scheme		
Portugal	Portuguese Forest Certification Scheme		

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Key national certification standards

Country	PEFC endorsed	FSC National Standard in place	CPET approved
Russia	Russian National Forest Certification System	Russian National Forest Stewardship Council Standard	
Slovakia	Slovak Forest Certification Scheme		
Slovenia	Slovenian Forest Certification Scheme		
Spain	Revised Spanish Forest Certification Scheme	National Forest Stewardship Standard for Spain	
Sweden	Swedish Forest Certification Scheme	Swedish Standard for Forest Management Certification	
Switzerland	Revised Swiss Q-label certification scheme (2007)		
United Kingdom	PEFC UK certification scheme for sustainable forest management (revised 2006)	United Kingdom Standard for Forest Management Certification	
United States	Sustainable Forestry Initiative	Regional Forest Management Certification Standard for the Lake States-Central Hardwoods Region	Sustainable Forestry Initiative
	American Tree Farm System	Regional Forest Management Certification Standard for Rocky Mountain Regional Standards	
		Regional Forest Management Certification Standard for the South-eastern United States	
		Regional Forest Management Standard for the Northeast Region	
		Regional Forest Management Certification Standard for the Southwest Region	
		Regional Forest Management Certification Standard for the Pacific Coast Region	
		Regional Forest Management Certification Standard for the Ozark Ouachita region	
		Regional Forest Management Certification Standard for the Appalachia region	

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'Stepwise' approaches to certification

Many forests do not meet the standards of sustainable forest management, and considerable efforts are required to improve them. The process to achieve full certification can be challenging, long and complex, particularly where financial and staff resources are limited.

A stepwise approach breaks down the certification process into smaller, more manageable phases. Step-by-step application of sustainable forest management standards allows limited resources to be placed on incremental and focused improvements. It facilitates progress towards certification, and is also easier to evaluate progress. It also generates economic benefits by providing a differentiator for products from forests moving towards certification, compared to those managed unsustainably.

Stepwise approaches involve a gap assessment of the forest concession, the creation of annual plans and targets and regular progress audits towards targets and, ultimately, certification.

One example of such an approach is Rainforest Alliance's SmartStep. Forests in the SmartStep programme create step-by-step targets and are audited for up to five years on progress, working towards FSC certification. Similar programmes are operated by GFTN and the Tropical Forest Trust.

Key due diligence questions on certification

- Has the company developed a policy on certification (e.g. accelerating certification efforts in high-risk regions)?
- Is the company's forest land certified to an internationally recognised standard, or is the company on a credible path to certification?
- Does the company have targets around purchasing certified wood and paper products?



What is the issue?

Different types of pollution can occur in many different places along the supply chain for wood and paper-based products. The amount and intensity of emissions depend on the type, condition and capacity of the equipment causing pollution and the location of the discharge points. The degree of deviation (i.e. lack of compliance) from legally established emission thresholds is also an important factor, and the opportunity for continuous improvement exists.

Environmental management systems can be used by organisations to help them reduce their environmental impacts, comply with relevant legislation, and demonstrate that they are managing their environmental risks and liabilities responsibly.

Common types of pollution observed in the Forest Products industry include:

Emissions to air

- Energy-related emissions resulting from the combustion of wood and fossil fuels to generate power
- Processing emissions resulting from processes such as pulping, bleaching, pressing, evaporating, and the chemical recovery systems.

Solid emissions

- Sludge from wastewater treatment plants
- Ash from boilers
- Miscellaneous solid waste, including wood, bark, non-recyclable paper, and rejects from recycling processes.

Emissions to water

- Large amounts of water are needed to carry the fibres through each manufacturing step in making paper products.

Noise

- A concern in the immediate vicinity of a mill. Its impact depends on the proximity of human settlements and the mitigation measures taken.

Specific pollutants of interest include:

- Volatile Organic Compounds (VOCs) originate mainly from wood processing (e.g. terpenes, methanol, etc). Paper coating, paper machine additives, printing inks, resins, etc. are also sources of VOC emissions. VOCs are precursors of ground-level ozone.
- Nitrogen Oxides (NOx): NOx are also precursors of ground level ozone.
- Formaldehyde: in the atmosphere formaldehyde is rapidly broken down in atmospheric ions; formaldehyde is a minor component of acid rain.
- Methanol: methanol reacts in the air to produce formaldehyde and other chemicals that are washed out by rain. Methanol is the most common VOC found in the production of wood and paper-based products.
- Sulphur Compounds: reduced sulphur compounds contribute to odour-related issues from manufacturing facilities.

Volume and quality of waste water:

- Biochemical Oxygen Demand (BOD) in the water discharge; BOD is the amount of oxygen that micro-organisms consume to degrade the organic material in the water. High levels of BOD can result in the reduction of dissolved oxygen in the water. This may adversely affect aquatic organisms. BOD is usually measured in kilograms per metric tonne of pulp.
- Chemical Oxygen Demand (COD) in the water discharge; COD is the amount of oxidizable organic matter, and it can be used as an indicator of the quantity of organic matter in the water. COD is measured in kilograms per metric tonne of pulp.

- Total Suspended Solids (TSS); measured in kilograms per metric tonne.
- Absorbable Organic Halogens (AOX), including chlorine; there has been heavy pressure to stop using elemental chlorine in the bleaching processes because chlorine compounds can react with organics and generate chlorinated compounds (sometimes including dioxins in small quantities). Dioxins are persistent substances that have been considered a probable human carcinogen. AOX can be used as an indirect indicator of the quantity of chlorinated organic compound in the effluent. Reductions in the amounts of AOX can be used as an indicator of continued technological improvement. However, dioxins and other highly chlorinated organic chemicals have been virtually eliminated from the AOX in effluents from mills that use Elemental Chlorine Free (ECF) bleaching technologies.

Understanding environmental management systems (EMS)

An EMS is generally defined as a voluntary series of processes and practices seeking to assess and reduce an organisation's environmental impact. In general, an EMS has four major elements (EPE, 2007):

- Assessment and planning – identification of environmental and aspects of interest, establishment of goals, targets, strategy and infrastructure for implementation.
- Implementation – execution of the plan, which may include investment in training and improved technology.
- Review – monitoring and evaluation of the implementation process, identification of issues.
- Adaptive management and verification – review of progress and adjustments for continual improvement. Different EMS have various degrees of third-party verification.

The presence or absence of viable EMS programmes can be useful in assessing an organisation's efforts to improve environmental performance and enhance compliance with pre-determined standards.

To fully contribute to improved environmental performance, a good EMS should:

- Be implemented at a strategic level and integrated into corporate plans, and policies. Top-level commitment is required so that senior management understands its role in ensuring the success of an EMS.
- Identify the organisation's impacts on the environment and set clear objectives and targets to improve their management of these aspects, as well as the organisation's overall environmental performance.
- Be designed to deliver and manage compliance with environmental laws and regulations on an ongoing basis, and will quickly instigate corrective and preventative action in cases of legal non-compliance.
- Deliver good resource management and financial benefits.
- Incorporate assured performance metrics that demonstrate the above, and that can be communicated in a transparent manner in annual reports.

A robust and effective EMS should be externally audited to a recognised international or national standard by an accredited certification body.

Benefits of external certification include:

- Confidence that the system meets recognised requirements and standards.
- Enhanced value and assurance to customers in the supply chain.

- Independent review of the way the organisation is committed to its activities and their associated impacts on the environment.
- Closer involvement of employees, and other stakeholders.
- Protection of reputational value.

Examples of environmental management systems

There are three widely recognised EMS;

- **ISO 14001** is the international standard for EMS which specifies the components necessary to help organisations systematically identify, evaluate, manage and improve the environmental impacts of their activities, products, and services.
- **EMAS** (the EU Eco Management and Audit Scheme) is a voluntary EU-wide environmental registration scheme, which requires organisations to produce a public statement about their performance against targets and objectives, and incorporates the international standard ISO 14001.
- **BS 8555** is a British Standard, published in 2003, which breaks down the implementation process for ISO 14001 or EMAS into 6 stages.

Key due diligence questions on pollution and environmental management systems

- Has the company developed a clear and broad policy on pollution?
- Have there been any legal claims relating to pollution associated with its operations?
- Does the company have an EMS in place for all its manufacturing operations?

- Is the EMS audited to a recognised international standard by an accredited body?
- Does the scope of the EMS extend to the supply chain?
- Does management know of any pollution issues in the supply chain, the company's own operations, local region or customer operations?
- Is there reliable publicly available information about pollution issues related to the company?
- Has the company endorsed international collaborative measures to combat pollution?

What is the issue?

Protection of indigenous people, their land rights and workers' rights in the forest, as well as in manufacturing facilities, is an important part of sustainable forestry. Forests and forest-products manufacturing facilities are potentially dangerous work environments. Initial processing of the wood often occurs in remote and sparsely populated areas where job opportunities, social support systems, government supervision and adequate infrastructure may be limited. Forces and conditions beyond the control of government authorities can sometimes be found in forest areas.

Key considerations in relation to local communities and indigenous peoples

- Logging concessions may have been granted or plantation forests established in areas where local and indigenous people claim property rights. This is a potential concern in many post-colonial countries.
- Inclusion of local community in the supply chain on equitable terms
- Worker safety may be lacking or under-age labour may be used
- Logging operations may be run by the military, and proceeds used to finance warlike activities
- Extremely low salaries and communities not receiving economic benefits from forest resources may be issues
- Illegal labour may be used
- Prevention of logging workers and other staff's involvement in bush meat trade
- Training / briefing logging workers and other staff to respect local communities and their culture
- The issues above can arise in both natural forests and intensively managed forest plantations

As in other aspects of sustainable forestry, tracing the production chain back to its beginning will help assess the risks and opportunities associated with social issues. In some areas, monitoring and verification have important roles to play.

The forest sector employs millions of workers throughout the various steps of the value chain.

Forest companies sometimes make up for governmental voids and take a leadership role in addressing social and governance issues. Values such as fair pay, employment benefits, training, health and safety, and interaction with local communities form a positive 'social contract' between employers and the communities in which they operate. Conversely, violations of workers' rights can lead to unsafe work conditions, reduction of local benefits, discriminatory behaviour, low wages, and an increase in migrant and informal work.

A number of international conventions, treaties and processes, including the International Labour Organization's core labour standards, incorporate considerations about social aspects of forest-based industries (Table 3). In some instances compliance with the law can be sufficient to meet the demands of individuals and communities, but insecure land tenure can present cases where legality does not equate with fairness.

Weyerhaeuser & indigenous communities in Canada

Weyerhaeuser is engaging indigenous communities in their forest concessions in Canada through:

- Contractual relationships for timber harvesting, forest silviculture, infrastructure development, and the supply of other goods and services
- Involvement with and donations to aboriginal initiatives
- Support for education to help develop employment skills
- Employment opportunities
- Mutual sharing of information and goals with a view to understanding and accommodation

From www.eyerhaeuser.com/Sustainability/Well-Being/IndigenousPeople



Table 3: Key international commitments and standards on social issues and forests

ISSUES	AGREEMENTS		
	United Nations Declaration on the Rights of Indigenous Peoples (General Assembly Resolution, 2007)	Convention on Biological Diversity – international convention to promote sustainable development focusing on biodiversity (CBD, 2007A)	International Labour Organization – core conventions and Convention 169, to recognise, promote and protect indigenous and tribal peoples' rights (ILO, 2003)
Ensure the participation of local communities and indigenous peoples and other major groups in the formulation, planning and implementation of national forest policies.	✓	✓	
Recognise and support the cultural identity, culture and rights of indigenous peoples and other forest dependent people.	✓	✓	✓
Recognise multiple functions, values and uses of forests, including traditional uses, and development and implementation of strategies for the full protection of forest values, including cultural, social and spiritual.		✓	✓
Formulate policies and laws aiming at securing land tenure of indigenous peoples and local communities.	✓		✓
Recognise and support community-based forest management		✓	
Develop regimes for protection, use and maintenance of traditional knowledge and customary use.		✓	✓
Build capacity of indigenous peoples and other forest-dependent people to possess resources to participate in agreements that apply SFM.		✓	
Protect workers' rights, including freedom of association, right to bargain, prevention of child and forced labour, equal remuneration, and protection against discrimination.			✓



Some of the most pressing social issues related to sustainable forestry include:

Violation of property rights, and the rights of local people (including indigenous groups)

Forestry operations (logging and processing) should consider, and be compatible with, the local land tenure rights regime, which may include community-based forest management systems.

Land-use rights held by indigenous communities may be undocumented and have evolved over millennia. In contrast to legal rights they can be much harder to demonstrate but are arguably equally legitimate. In countries where treaties establish these rights, interpretation and enforcement may affect forest management.

Subsistence use of the forest should be respected. Violations of the rights of local people may include bribery and access to large concessions through gifts to certain members of the community without the consultation of the full community.

Participation and consultation

Forest operations should include the meaningful participation of and consultation with local communities and indigenous peoples appropriate to the nature and scale of the operation, the type of ownership (public vs. private), and local legal regimes and customs. The use of FPIC is widely accepted as best practice to engage communities, but it is seen as challenging by some banks to implement in practice.

The United Nations Permanent Forum on Indigenous Issues emphasises Free, Prior & Informed Consent (FPIC) as a 'process undertaken free of coercion or manipulation, involving self-selected decision-making processes

undertaken with sufficient time for effective choices to be understood and made, with all relevant information provided in an atmosphere of good and faith and trust.' (United Nations Permanent Forum for Indigenous Issues, 2009)

Engagement that is based on information, inclusiveness, dialogue, legal recognition, monitoring and evaluation and capacity building can benefit communities and businesses alike. Especially where land tenure and traditional rights are uncertain, the appropriate degree of consultation can be controversial. Feedback from consultations should be incorporated into company strategy, and action taken to resolve issues raised.

Capacity building

Building the capacity of local people (including indigenous groups) to work in the industry sector, and understand, negotiate and participate in agreements regarding the management of their resources and participate in the production supply chain on an equitable basis.

Recognition and support of cultural identity.

This includes maintenance, use and promotion of traditional knowledge and practices of local communities and indigenous peoples which in some regions is being lost.

Regions most at risk

As mentioned above, forestry companies have faced challenges meeting the needs of indigenous peoples in many post colonial countries

The differences in social performance between and within countries and regions are significant. It is important to understand the specifics of the region in question. Areas of concern include the following:

Areas associated with armed conflict (in some cases logging and trade in wood-based products have been used to sponsor armed conflict).

Areas known to have flagrant violations and avoidance of workers' and human rights.

Key due diligence questions in relation to local communities and indigenous peoples

- Have the company's or its suppliers' forestry concessions been subject to claims by local or indigenous peoples about rights to land or resources?
- Has FPIC been applied to forest stakeholder community engagement?
- Is there reliable publicly available information about concerns over the treatment of local people or workers' rights related to the company?
- What procedures are in place to establish the existence of property rights claims on land or resources before commencement of forestry activities?
- Has the company developed a policy on indigenous peoples?
- Has the company developed a policy on local communities and workers' rights?
- Is the company participating in international agreements such as the UN's Agenda 21 and ILO's core labour standards?
- Wood tracing systems (e.g. Chain of Custody programmes) can be a useful tool to assess risks associated with social issues: is the company employing credible wood tracing systems to tackle significant risks?
- Certification is a key weapon against mistreatment of local communities and indigenous peoples: is the company working systematically towards certification for all its forestry operations?

Company-Led Approaches to Conflict resolution in the Forest sector

This discussion paper from The Forests Dialogue (TFD) and Institute for Environment & Development (IIED) released in July 2009 explores the potential for addressing conflict in the forest sector through the use of company-led tools and mechanisms. The paper offers examples of tools and approaches that are being employed by companies and non-industry players working closely with companies to address conflict-related issues.

It can be downloaded in full from www.wbcsd.org/plugins/DocSearch/details.asp?type=DocDet&ObjectId=MzUwMDk



What's the issue?

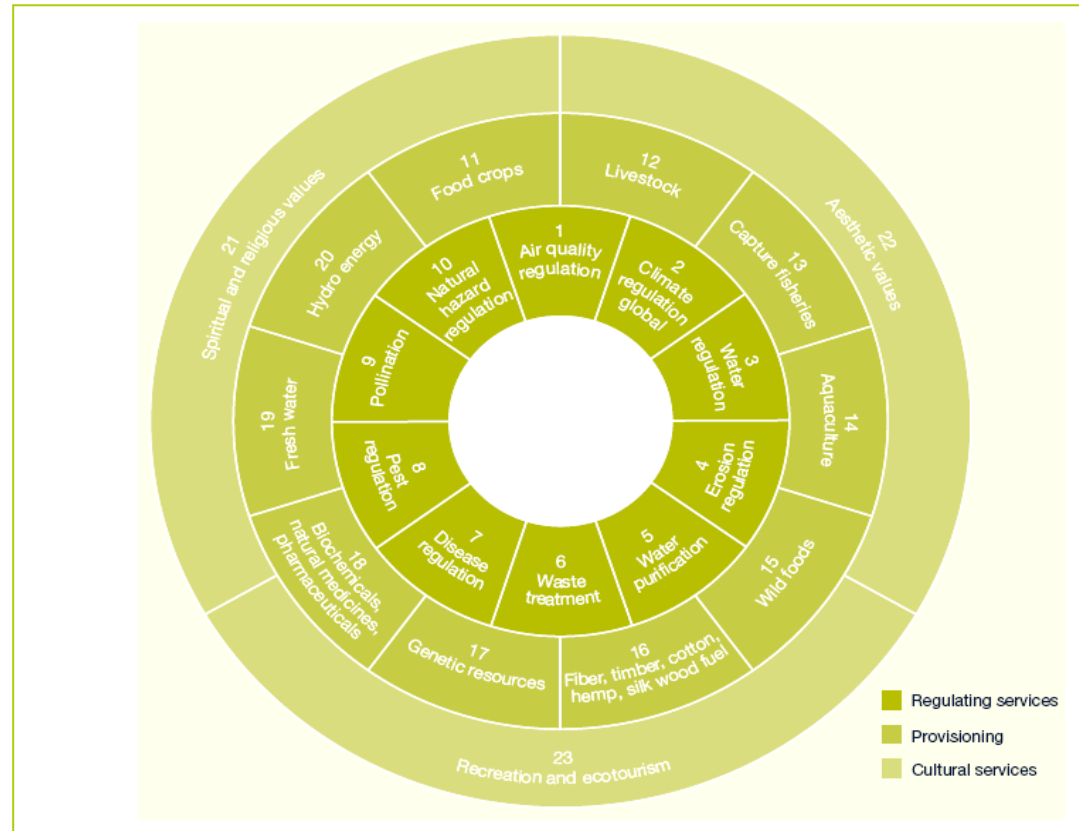
When forests are harvested, converted or burned at a faster rate than they grow back, they contribute to climate change. In a sustainably managed forest, logging is balanced by re-growth, but when forest land is converted to other uses there can be a significant net contribution to greenhouse gas emissions. An estimated 24% of global carbon dioxide emissions are attributable to land-use changes and forestry activities (Baumert et al., 2005).

In addition to storing carbon, forests provide other crucial ecosystem services, which are quickly lost if forests are not sustainably managed. The Millennium Ecosystem Assessment defines ecosystem services as the benefits that people obtain from ecosystems. The diagram opposite illustrates these.

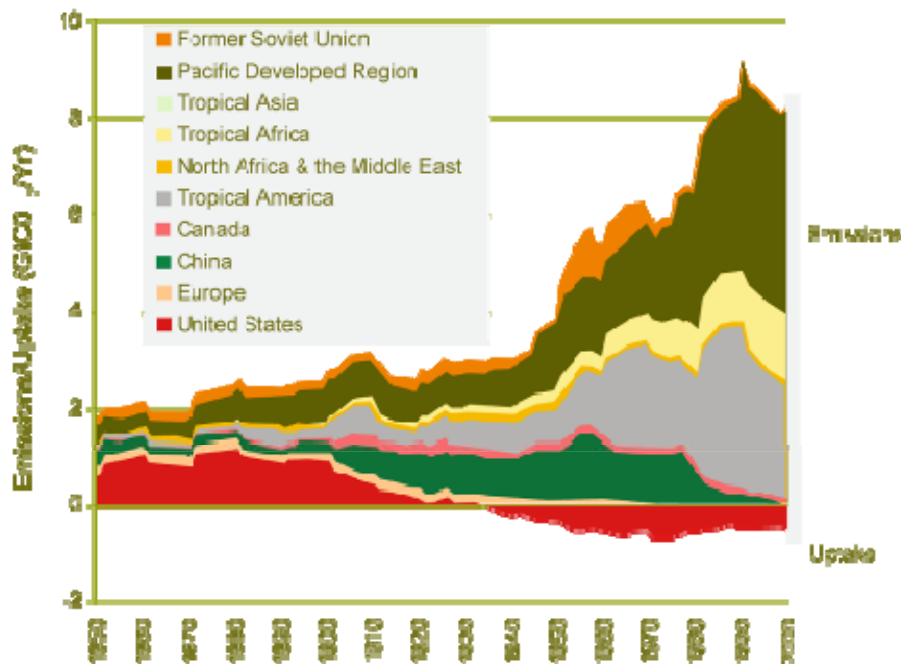
A diverse group of stakeholders brought together by The Forests Dialogue's Initiative on Forests and Climate Change in 2008 agreed that:

- Forests have a unique ability to simultaneously reduce greenhouse gas emissions, capture carbon, and lessen the vulnerability of people and ecosystems to climate change.
- Forests store a vast amount of carbon. Conserving this store by reducing deforestation and forest degradation and promoting sustainable forest management must be one of the world's highest priorities.
- Restoring forests and planting new forests greatly increases the forest-based carbon store. Sustainably managed forests not only retain their carbon, they also support the livelihoods of millions of rural people and deliver many products and ecosystem services, such as the clean water and wildlife habitat that societies need.

- Sustainably harvested forest products and wood-based bioenergy can reduce greenhouse gas emissions by substituting high emission materials such as petrol, steel or concrete for neutral or low emission, renewable ones.
- For forests to fully achieve their potential to address climate change, their governance must be improved and processes established to empower disenfranchised people, including indigenous peoples.



Uptake and emissions from land-use change between 1850 and 2000 *



The negative emissions, (uptake) post-1940 are largely due to increasing forest area in the US and Europe. The peak emissions in 1990 are linked to forest fires in Indonesia

Source: Stern, 2007

* Note: This graph depicts emissions based on land use change. Other calculations conclude that the terrestrial ecosystem is a net carbon sink.

Sustainable Forest Management (SFM)

Sustainably managed forests are approximately carbon neutral. They form a mosaic across the landscape in which the growth of trees over a given area will compensate for the carbon lost through annual logging of a much smaller area. On the other hand, a forest landscape subjected to land-use change or over-harvesting will release more carbon than it takes up. The rate of recapture of atmospheric carbon depends on several factors:

A young stand with small trees will absorb carbon as the trees grow, but the amount of carbon stored is initially small. The rate of storage is proportionate to the high rate of growth, and managed forests sequester a pool of carbon, with harvest balanced by re-growth.

An old stand with big trees is the result of a long period of biomass accumulation. Although the science is still inconclusive, it is generally accepted that old stands with big trees store large amounts of carbon. As their growth stagnates they may no longer take up as much carbon as they release.

Stable old-growth forests are a valuable pool of stored carbon. Replacing these stands with young, vigorously growing trees would reduce the amount of carbon stored on the land, and it would take decades, or even centuries, for the newer stands to recapture it.

Sustainably managed forests, however, play an important role in climate change mitigation. Harvested wood products and wood-based bioenergy from forests already being sustainably managed contribute to climate mitigation through carbon sequestration and avoided emissions when substituted for more energy intensive materials. The IPCC fourth assessment report wrote 'In the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fibre, or energy from the forest, will generate the largest sustained mitigation benefit.'

Keeping up-to-date with Forest Carbon

Forest Carbon is a fast-moving topic and changes month by month. These useful sources help provide updates on the current issues:

- The Forests Dialogue: <http://research.yale.edu/gisf/tfd/>
- UN-REDD: <http://www.un-redd.org/>
- Forest Carbon Portal: <http://www.forestcarbonportal.com/>

Afforestation and Reforestation (A&R) projects

Afforestation: These projects involve re-establishing 'forest cover' (i.e. at least 20% canopy cover) on lands which historically were forested but have not had significant forest cover for at least 50 years.

Reforestation: As above, but on lands where deforestation – or severe degradation – of forest land occurred within the last 50 years. Some forest carbon standards require that deforestation had to occur before 1990 (the Kyoto baseline year) for projects to receive formal recognition.

Reduced Emissions from Degradation and Deforestation (REDD)

The aim of REDD projects is to identify areas undergoing rapid loss or degradation of existing forests, and develop management plans and financing to halt and reverse these activities and related carbon emissions (which occur through soil disturbance, burning of biomass for clearance, and organic matter decay).

The profile of REDD in the United Nations Climate Change Conference in Copenhagen has risen, and now constitutes around 10% of the negotiating text. One of the current ideas for REDD is to break it into a three-stage 'phased approach'. In phase 1 countries develop national REDD strategies including institutional strengthening, in phase 2 a fund-based instrument is implemented that allows countries to access REDD finance, and in phase 3 a GHG-based instrument rewards countries based on emission reduction performance.

More recently the idea of REDD+ has emerged which aims at delivering more than reduced emissions and includes alleviating rural poverty, conserving biodiversity and maintaining other ecosystem services.

In 2008 The Forests Dialogue initiative published Beyond REDD, which includes suggested actions for financial institutions to take when considering funding REDD projects.

These can be downloaded at:

www.wbcsd.org/DocRoot/pVG14xChqTkul6kenBQ4/TFDcli_matestatement.pdf

In 2009 the UK Department for International Development (DFID) and Department of Energy, Food & Rural Affairs (DEFRA) commissioned the Forest Investment Review which also contains useful information on investing in REDD. This can be downloaded at

www.forumforthefuture.org/files/130713_fff_07_FIR_for_wb_r4.pdf

Wood-based biofuels

Wood-based biofuels recycle to the atmosphere carbon captured through tree growth. Compared to fossil fuels, which transfer carbon from geologic reserves into the atmosphere, wood-based biomass fuels are considered 'carbon neutral' when the forests from which the fuels were taken remain as forested areas, or trees are planted elsewhere to compensate.

There is increasing interest in the use of biomass fuels from forests, especially in the transportation sector; however, if carried to the extreme, demand for wood-based fuels could result in negative effects:

- Unsustainable harvesting for biomass
- Reduced carbon sequestration
- Distortion of markets for limited wood supplies.

Waste not, want not? The future of recycled fibre streams

The waste management industry has received a major boost from the many measures aimed at increasing waste recovery and recyclability and reducing waste to landfill. There has been significant deal activity in the waste management sector, with handsome premiums often paid by companies seeking to enter into or grow in the sector. It has now been realised that waste constitutes a potentially valuable resource stream. The European paper industry, with around 50% of its fibre feedstock sourced from recovered paper, is fully aware of this. Bundled waste paper now makes long-distance journeys to countries short of quality waste, as with the case of China sourcing waste paper from the US and the UK.

Recovered fibre must still be supplemented by sustainably harvested fresh fibre, as both are required to maintain a healthy paper fibre supply. Fresh fibre is always required in the fibre cycle, since not all paper can be recovered and wood fibres are degraded through the recycling process. The availability of waste paper has led to the growth of urban paper mills that are close to their feedstock, waste paper, and their customers. These mills face a number of challenges, including ensuring sufficient purity of their waste paper stream and disposing of the sludge left from de-inking and cleaning the waste fibres. Even more importantly, urban paper mills are harder hit by energy price increases, because producers are typically unable to benefit from the inherent energy in the wood fibre used by integrated mills.

Producers of fresh (virgin) pulp are not the only ones who may face competition for their fibre. Many European paper producers using recovered fibre have been concerned that they would face similar competition from energy producers for waste paper, as the economics of renewable energy production could potentially favour incineration. Future deal activity may be driven by waste collectors looking to use non-recyclable waste to produce highly efficient, low-cost power and heat to provide a platform for energy intensive industrial processes such as pulp production and papermaking.

As demand increases by environmentally conscious consumers for papers with a high recycled fibre content, produced in a carbon neutral process, both the economics and sustainability of a waste-based platform for energy and paper production may look attractive.



'Timber-plus' investment strategies

Investing in forestland based on the traditional return drivers of biological growth, timber values and sometimes land values has become an attractive investment theme in its own right. However, as we look towards the future, the definition of commercial timber values will continue to expand beyond traditional sawlog and/or pulplog values to include the potential value of the wood as energy.

A further set of opportunities is starting to arise from the environmental services (or 'ecosystem services') provided by forests. As time passes, awareness is increasing of the valuable role of trees and forests in carbon sequestration and hence in mitigating some of the effects of global climate change. Most notably, the role of forests as a carbon sink could become a source of significant revenue – and 'timber-plus' investment strategies are receiving growing interest.

The Kyoto Protocol explicitly named afforestation and reforestation as potential avenues for offsetting carbon dioxide emissions and hence, in principle, projects could be generated under either Kyoto's Clean Development Mechanism (CDM) or Joint Implementation (JI) schemes. In practice and for various reasons, this has not happened. The world's currently dominant carbon trading system, the EU-Emissions Trading Scheme, does not include options for achieving emissions reduction units (ERUs) via forest activities. Further, the US does not yet have a mandatory emissions reduction or trading systems. For these reasons, the voluntary markets present more opportunities for forestry carbon projects. According to the Greenhouse Gas Market Report 2007 from the International Emissions Trading Association (IETA), the market share of forest carbon projects in total voluntary carbon projects was 36% in 2006 –there was a similar percentage in 2007. The Chicago Carbon Exchange (CCX) has emerged as the first voluntary, legally binding greenhouse gas reduction and trading system for emission sources and offset activity. The CCX does allow forest carbon sequestration, and some trades have occurred.

In consequence of the Bali Action Plan in December 2007, recent attention has also turned to how REDD, a framework of incentives to reduce deforestation and forest degradation, might work under any post-2012 climate treaty to succeed the current Kyoto Protocol. There is a long way to go in terms of producing a framework, but the very fact that work is in progress has begun to spawn specific project ideas for compensating forest communities for avoided carbon emissions, with projects already launched, for example, in Indonesia and Guyana.

In short, in recent months, there has been a surge of activity in proposed forest carbon sequestration and trading and offset schemes, either as activities separated from traditional timberland investment strategies (such as those based on avoided deforestation in the tropical rainforest) or as an integral but incremental part of a traditional investment platform (for example, an afforestation scheme that generates a carbon credit revenue stream over the growth cycle, before the timber is harvested on maturity and then regrows). Inevitably, there are many complexities with selecting, designing and executing specific schemes, but given a growing imperative to combat climate change and the important role that trees and forests could play, significant markets in forest carbon look likely to develop.

Forest carbon and ecosystem services

Investors and lenders considering providing finance for forest carbon projects need to ensure that the projects focus on:

- Long-term carbon storage and sequestration in both forests and harvested wood products
- Enabling sustainable development
- Enhancing biodiversity

Macro-level questions

- Is a funding strategy in place and finance-raising moving?
- Are markets, methodologies, and validator understood?
- Have buyer appetite and concerns been established?
- Do developers and investors understand government / cabinet sentiment?

Micro-level questions

- Is there on the ground understanding on current land occupancy and stakeholders?
- Are practical risks being monitored systematically?
- Is a robust and reviewed model for carbon sequestration being used?
- Have legal rights over land and carbon been clarified?

National industry and regulatory context

In 1960 the federal government introduced tax incentives for forestation and reforestation schemes. Planted forests have since become the basis for Brazil's modern forest-based industries sector. Forest protection is enshrined in the Federal Constitution of 1988. In 2000 the Decree Law No 3420/2000 was introduced, and with it the Forest Policy and National Forest Programme. Further measures were taken in 2005 with The Law on the Management of Public Forests for Sustainable Production, which focused on the allocation of timber concessions in federal forests and created the Brazilian Forest Service and National Forest Development Fund.

Basic policy objectives of the above legal measures include:

- Expansion of a network of National Forests (flonas) to promote sustainable forest management and protect large tracts of forest
- The promotion and execution of sustainable forest development
- The protection of biodiversity of forest ecosystems
- The harmonisation of sustainable forest development with sectoral policies and other sectors
- Institutional development, with the Federal Government playing a key role in coordinating activities.
- Creation of a transparent and open bidding process for forest concession allocations, while giving preference to NGOs and local communities.
- Allocation of 20% of concession revenues to the Brazilian Forest Service and the Brazilian Institute of Environment and Renewable Natural Resources.

Wider use of wood-based energy has been stimulated with the government's launch of its National Agroenergy Plan in 2005. Key elements include:

- Reforestation;
- Improved utilisation of forest waste for energy purposes;



- Promotion of technologies to improve energy yields from wood fibre.
- In summary, Brazil has introduced reforestation programmes and developed a broad legal apparatus for the preservation and restoration of its native forests. However, the country has consistently lacked the resources to enforce the relevant laws. Huge areas of native forest are still being steadily eroded due to land pressure.
- According to the FAO's analysis for the period 2001-2005, Brazil has the highest level of deforestation in the world, with an average annual net loss of 3.1 million hectares, an area the size of Belgium.

Country-specific sustainability issues

- Widespread abuse of the wide range of forest protection laws continues
- Government has been taking stronger measures to ensure its presence is felt in areas most vulnerable to deforestation. This has resulted in some disruption to harvesting in the native forests

- Relating to Eucalyptus plantations: the producers' ability to expand the planted base in the main growing states, such as Minas Gerais, São Paulo and Bahia is becoming more constrained due to competition for land, with crops such as sugar cane (for ethanol production) and orange trees
- Relating to tropical sawn wood activity: this is conducted in environmentally sensitive areas, and the distances to major consumers are large.

Certification

- Brazil has, by far, the largest area of certified forest in South America.
- The certified area includes some preserved native forest as well as plantations.
- Both Forest Stewardship Council (FSC) (interim standards) and the Programme for the Endorsement of Forest Certification schemes (PEFC) (via the Brazilian Forestry Certification Programme (CERFLOR)) are in use.

- Altogether by 2005, about 3.0 million hectares of forests, including planted and native forests had been certified by one or other or both schemes.
- According to BRACELPA, by 2006, 1.6 million hectares of the 3.1 million hectares of forestland controlled by the Brazilian pulp and paper industry had been certified.
- While a high proportion of plantations have been certified, only a small fraction of native forest has been.
- The cost and effort of both obtaining and maintaining certification has been an issue.

Opportunities

Despite these current pressures, Brazil's potential as a fibre base remains huge.

Broad opportunities include:

- Production of renewable energy and bio fuels;
- Sustained high demand for traditional forest products;
- Significant potential for increasing the volume of tropical sawn wood.

Relating to Eucalyptus plantations, newer areas being planted or where sites are being investigated include Rio Grande do Sul, Mato Grosso do Sul and the North-East region.

Substantial tracts of land are available away from the hotspots, which have been deforested or otherwise degraded by poor agricultural practices. These areas may pose greater logistical challenges given the inherent limitations of the country's transport infrastructures, but significant opportunities remain.

Forest carbon opportunities in Brazil

There are some opportunities too for the forest products industry to benefit under CDM. One example is the cogeneration of electricity using forest biomass. The first Brazilian company from the wood processing sector to sell credits via the Kyoto Protocol was Celulose Irani, which replaced oil-fuelled recovery boilers with equipment using forest and sawmill waste.

There are also a number of non-Kyoto carbon markets, providing voluntary GHG reduction and trading systems for emission sources and offset projects. In the case of Brazil and relevant to the forest products sector is the Chicago Climate Exchange (CCX), which accepts forestry-based carbon credits. Reforestation and conservation projects in Brazil and in Mexico are among these. As an example, in January 2007 Klabin started trading carbon credits on CCX derived from its 32,000 hectares of eucalyptus forests.

See the [forest carbon issue briefing note](#) for further information.

For further information

For more detailed information on Brazil and South America see 'Risks and rewards – Forest, paper and packaging in South America'

This report includes a regional economic overview. Content for Brazil includes analysis on: Brazil's economy, forest products, forests and forestry, pulp, paper and paperboard, paper packaging, wood products and wood-based energy. For other South American countries (Argentina, Chile, Colombia & Uruguay) the report includes analysis on: their economies, forest products, markets and key players. The report also includes insights from industry, interviews with International Paper and Votorantim Celulose e Papel and a summary of the risks and rewards of doing business in the sector.



Nature of forests and timber movements

The Indonesian industry is dominated by the needs of local and regional pulp and timber markets. The larger operators within Indonesia tend to be those with their own facilities for pulp production and paper making, and those with large concession areas under management. There are also a large number of smaller operators, often operating informally and, it is alleged, illegally, in forest harvesting and clearance operations. Timber movements and exports are difficult to determine due to the lack of transparency on product types, volumes and buyer markets within Indonesia, although it is suspected that a high proportion of timber and forest product volumes are destined for local buyers, including China.

Protected forest and enforcement

Enforcement of protected areas in Indonesia is challenging for a number of reasons, including:

- The huge land mass of Indonesia and the many separate islands it comprises.
- Indonesia as a country has a relatively low GDP and lack of resources for both forest management and enforcement activities.
- Governance, skills, training and information-sharing are limited within the forestry sector, compounding problems of enforcement over such a large area.

Illegal logging within Indonesia

Rates of illegal logging within Indonesia rank among the highest in the world. Within Sumatra this clearance and associated forest fires are one of the prime causes of the haze that is experienced in the region late in each year. It is estimated that up to 80% of all logging activity in Indonesia is illegal according to commonly accepted definitions of the term.

Special places and certification

Indonesian forests, and particularly Indonesia's primary forests, have some of the highest conservation values of all the world's forests. The island of Sumatra includes the only wild populations of Sumatran tiger, thought to number between 150 and 300. The tigers' existing habitat remains under severe threat, both in terms of reductions in overall area, but also through fragmentation of existing habitats. The viability of the Sumatran tiger sub-species and its existence in the wild remains under serious threat. As in neighbouring regions, such as Sarawak in eastern Malaysia, there are many areas of natural forests categorised as production forest areas, in which it is believed that endangered and rare species and habitats are found.

The attention of the international and scientific NGO communities remains focused on companies operating in such areas.

There are some operations in Indonesia certified to the Forest Stewardship Council (FSC) international standard, but these take up a very small portion of overall forested areas within Indonesia, and an equally small number of areas certified to the local Indonesian standard, the LEI.

Certification remains a challenge for the industry as a whole across Indonesia.

Country-specific sustainability issues

- An issue of international importance is the conversion of Indonesia's peat forests. These forests and the soils beneath them are one of the largest terrestrial stores of bio-carbon, and as such their fate has become an area of increasing concern to scientific and conservation organisations, as the climate change agenda has evolved and the link to forest management has become clear.

- Conversion of peat forests takes place primarily through illegal activities and the actions of small informal logging operators, but it is also a part of the business models of larger operators, including those in the pulp and paper sector.
- Deforestation rates within Indonesia are some of the highest in the world.
- Corruption and bribery remain specific issues for Indonesia, as does the treatment of local indigenous communities, although arguably this has not had the same attention placed on it as over the border in neighbouring Sarawak (Malaysia).
- Conversion of natural forest for palm oil plantations is a major driver of deforestation and loss of wildlife in Indonesia. According to WWF, in 2006, over half (six million) of the world's 11 million hectares under palm oil plantations were in Indonesia. This figure is expected to grow in future years. About 75% of the world's palm oil originates from Malaysia and Indonesia.

Opportunities

There may be opportunities in Indonesia for organisations looking to capitalise on the forest carbon credit market. There is significant potential to reforest degraded areas of land with the purposes of biodiversity gains and restoration of wildlife habitat, or for the production of marketable timber managed to international best practices.

Nature of forest and timber movements

Malaysia remains a heavily forested country despite high rates of forest conversion for palm oil and other uses in recent decades. The country's forest areas are divided into:

- Gazetted areas for production forest
- Protected areas for high conservation and tourism values
- Industrial tree plantations or reforestation

Gazetted areas for production forest tend to be areas that have been logged previously; in some cases several times, often to the extent that they can no longer be considered primary forest, but rather degraded or secondary forest.

Other areas gazetted for production forest do however have conservation value in several regions, which are discussed further below. Protected areas include Taman Negara within the peninsular of Malaysia and a series of national parks within Sabah and Sarawak in East Malaysia, on the island of Borneo.

In terms of timber movements, Malaysia remains one of the world's largest exporters of tropical hardwoods, if not the largest. Exports consist, first, of primary unprocessed timber products, destined for local markets and originating from East Malaysia. These tend to be, for example, sawn timber and logs shipped from Sabah or Sarawak to Vietnam, China or other local countries.

The second export category is secondary processed timber products, which originate predominantly from peninsular Malaysia and are shipped and exported to US and EU markets. For example, the UK remains one of the largest importers of Malaysian timber products to this day.



Protected forest and enforcement

There remain significant areas of land within Malaysia that are protected through their designation as national parks or areas of scientific interest. Among these are the Taman Negara within the peninsular of Malaysia, which is famous for its 130 million years-old rainforest, its viable population of Indo-Malay tigers and its populations of indigenous tribes. Within Sabah and Sarawak, famous protected areas with high scientific values include the Danum Valley conservation area and the Maliau Basin, which remains largely unexplored, and is an area of primary untouched lowland rain forest.

Generally speaking, these areas are well protected and the park boundaries are well enforced. However, all these areas sit alongside forest concessions where production practices and potentially illegal logging or informal deforestation may threaten the integrity of these protected areas.

One challenge for the enforcement bodies across Sabah, Sarawak and peninsular Malaysia remains that of enforcing an effective and scientifically sound level of allowable cut (AAC). This defines a sustainable level of timber harvesting and, in many cases, is not monitored on the ground to ensure that forest operators are taking timber only at a sustainable rate.

Special places and certification

Within Malaysia, particularly within Sabah and Sarawak, there are huge areas of forest with high conservation values. Many areas gazetted as production forest within these two states have been proven to act as habitats for endangered species such as the clouded leopard, the Sumatran rhino and the Asian pygmy elephant. Conservation priorities and the attentions of NGOs and other stakeholders make sustainable management of these production forests and clear delineation of high conservation areas essential.

The national level certification standard is the Malaysian Timber Council Certification Standard (MTCS (previously MTCC)) (endorsed by PEFC in May 2009). The MTCS is the standard that all SMUs within provincial Malaysia are certified to, and an increasing number of concessions within Sabah and Sarawak are hoping to obtain it in the coming years.

There are a small number of concessions and planted forest areas certified to the FSC Standard, but these are few and far between

National industry and regulatory context

The primary government agencies responsible for regulating timber production and forest management within Malaysia include within Sabah the Sabah Department, within Sarawak the Sarawak Timber Association (STA) and the Sarawak Timber Industrial Development Corporation, (STIDC). Within peninsular Malaysia, forestry operations are regulated by State Forestry Departments.

Country-specific sustainability issues

A challenge for forestry operators within Sarawak for a number of years has been the issue of indigenous communities and their relationships with logging operators active in their ancestral lands. This has been a particularly high profile issue for the Penan peoples and the Samling corporation within Sarawak. Several international NGOs actively monitor the plight of the Penan peoples and other indigenous groups, and continue to hold logging companies to account for any alleged negative impacts on these communities.

Management integrity and low levels of transparency remain a potential risk for investors in the forestry industry within Malaysia as a whole. Information on timber exports and volumes, and information on concession holders and key players within the sector, remains hard to obtain, and there are regular allegations of bribes and facilitation payments within the forestry sector

Opportunities

For progressive investors and forestry operators within Malaysia, there may be upside opportunities through the process of getting operations certified to international standards. Although the debate around premiums obtainable for certified timber products continues to generate controversy, it would appear that there are premiums achievable at least for certain parts of the value chain following certification to a credible international standard.

In addition, for companies managing large areas of natural forest and potentially plantation forest, there may also be potential to bundle benefits from a number of revenue streams, including timber revenues, carbon credit revenues, eco-tourism fees and income, and emerging markets for biodiversity offsets.



Key facts on Russian forestry

- One fourth of the world's timber resources, but only 6% of global logging
- 4.7% of Russia's industrial production
- 26% of timber industry production is round timber
- 24% of production is exported
- Export of timber products in 2007 amounted to US\$12.6 bln
- Round timber represents 37% of exported timber products
- 35% of paper and cardboard and 46% of furniture are imported

National industry and regulatory context

The Russian government views the sector as high-priority and its key priorities have been to discourage industry players from exporting round timber, expand value-added areas of domestic industry and to generally improve investment climate in the industry.

To this end it introduced the New Forestry Code in 2007, alongside a programme to substantially increase customs duties on round timber exports and measures to improve investment attractiveness. At the present time it is unclear whether the punitive tariffs of 80% outlined in government plans will ultimately be introduced.

The new Forest Code transferred forest policy matters to the regions (oblast, krai & republics), and regions are required to develop forest and forest industry policies.

Forests are still owned by the state, and concessions are granted for a maximum of 49 years for private individuals and enterprises.

Concession are granted through tenders, and there are no limitations on foreign legal entities.

Concession owners face heavy obligations, including building of forest roads and other forest infrastructure, and ensuring reforestation.

Protected forest and enforcement

All forests are state owned – the large majority are part of the Lesnoy Fond, or forest fund, which also includes non-forest lands. However, some belong to other government entities such as the Ministry of Defence or Ministry of Agriculture. Russia's forests have been divided into three categories, which are organised around location and economic, social or environmental significance. Further, the Russian government designates some forests as 'specially protected natural territories', including nature reserves and parks, spas and national monuments. UNECE-FAO reported in 2001 that around 5% of forest fund lands fall under this classification – however as the forest fund also includes some non-forest lands, it is difficult to calculate an exact percentage. Various sources estimate that anywhere from 2-7% of Russia's forests are protected, according to common usage of the term.

Special places and certification

Forest certification has been receiving increased attention in Russia in recent years. Public procurement policies as well as private sector initiatives are driving the push towards forest certification in all industrial wood-producing regions of the world. According to UNECE-FAO, less than 3% of Russia's commercially accessible forests were certified by mid-2006, compared to over 30% in North America and over 50% in the EU/EFTA area, so certification still has the potential to expand rapidly in Russia. When Russia's earlier Forest Code was adopted in 1997, one stated goal was to provide only certified wood to Western markets by 2007 – an ambition that clearly has not been met.

Globally there has been a proliferation of forest certification standards, but those with the broadest reach are administered by the Programme for the Endorsement of Forest Certification (PEFC) and the Forest Stewardship Council (FSC) respectively. The latter is far more widespread in Russia. However the National Voluntary Forest Certification Council has been developing the Russian State Forest Certification System (RSFC), which is now endorsed by PEFC. A Russian FSC Standard was accredited by FSC in November 2008.

While certified products do not currently command a price premium, this may change as sustainable procurement policies continue to develop. Major domestic players like Ilim Pulp (now partly owned by International Paper) and APPM have ramped up certification efforts in recent years – in fact, Ilim Pulp has more FSC-certified forest in Russia than any other player and, in a further major initiative, became the first domestic forest products producer to prepare a corporate responsibility report. Also, most Western companies operating in Russia are choosing to source certified wood as part of rigorous chain-of-custody and procurement programmes. While Russia has ambitious aims in regard to certification, for the time being the drive toward greater use of certified materials will likely be driven by those operators who export regularly to the West and Japan. Further, certification comes at a fairly high cost – so many logging companies are currently unable to finance the certification process.

Nature of forests and timber movements

Vast stretches of Russia are covered in forest, amounting to over one fifth of the world's timber reserves.

Russian forests are also ecologically important, making a substantial contribution to the global carbon balance and housing diverse ecosystems. The total forested area, with boreal forests predominating, is estimated at anywhere from around 760 million hectares to around 1,180 million hectares, with the UN's Food and Agricultural Organization (UNECE-FAO) settling on 809 million hectares in its most recent study. The discrepancies are probably due to complexities in how the Russian government classifies forest lands.

Country-specific sustainability issues

Russia's forestry segment struggles with inadequate infrastructure and the impact of an enormous illegal logging industry. The summer of 2006 also brought some additional challenges, as the number and severity of forest fires surged throughout Russia.

Illegal logging is another serious challenge facing the industry in Russia. Reports on the scope of illegal logging vary widely. While in the past the Ministry of Natural Resources asserted that illegal logging only accounted for 0.5% of total logging in Russia, in March 2006 Valeriy Roshchupkin, head of the FFA, estimated the volume of illegal logging in Russia at 10-15%. Other sources in the industry have estimated that up to 20% of timber harvests might be classed as illegal, placing the level of illegal logging at up to around 30 million m³ at today's rate of cutting. In fact, some environmental groups believe that the actual rate of illegal logging is much higher. Regardless of the exact extent of illegal logging, it is clear that it is costly to the Russian economy and has a negative impact on the legitimate trade in forest products, not least by keeping wood prices low, discouraging the development of value-added wood processing and consolidation in the logging sector.

Illegal logging is very costly for both the government and industry. Much-needed measures like additional aerial and space monitoring and more railroad checkpoints are being applied to reduce illicit felling. The government is taking the issue seriously and has taken several steps to address it. Aerial and space monitoring technologies are now being employed in a number of regions with developed timber harvesting, and the FFA planned to expand the systems to include all harvested areas by 2007. In addition to spotting illegal loggers, the technology is intended to help monitor forest fires. In June 2006, official reports indicated that the monitoring system had identified around 1.2 million m³ of illegal logging. Clearly there is still a way to go to address the problem fully.

Regional authorities are also stepping up efforts to thwart illegal logging. The Siberian province of Irkutsk has announced plans to establish 10 new inspection points along the Trans-Siberian railway, one of the main transit routes from Russia to China.

The Europe and North Asia Forest Law Enforcement and Governance (ENA-FLEG) committee is leading the fight against illegal logging globally. Russia is a relative newcomer to ENA-FLEG, but is already looking to take a leading role in its activities. In November 2005, Russia hosted a Ministerial Conference in St. Petersburg. Cooperation between ENA-FLEG members and strategies for eliminating illegal logging and timber trading formed the focus of discussions. ENA-FLEG is looking to promote standard market regulation, forest management certification, and the marking of round wood to help fight illegal logging. The organisation has also acknowledged that rural poverty in forest areas contributes to illegal logging in some regions, and stresses the need for reform of forest legislation, as well as enforcement of existing legislation.

More wide-reaching efforts to fight government corruption should have a positive effect. Shifting authority over forest resources from federal to regional authorities may pose new

challenges, however, as it will necessitate transparent cooperation between the various ministries responsible for overseeing the industry.

Russia's forests cover a vast area, and the logging industry is extremely fragmented. The predominance of small players makes illegal logging more difficult to combat, as illegal cutters often strip a small area and move on before satellite monitoring or other techniques are able to detect their activities. Efforts to increase vertical integration in the industry may therefore have a positive effect on the rate of illegal logging, by decreasing the number of small players.

Opportunities

On another note, Russia's forest industry may benefit from several global trends, which focus on generating more value from forest resources. The introduction of biomass technology can allow mills to produce products with higher value added while minimising environment impact. Harvesting natural forest products such as resin or wild berries can also generate revenues without necessitating extensive cuttings. Domestic demand for wood-based fuels may also increase in the short and medium term, reflecting a global trend towards increased use of renewable energy sources. There are export opportunities too, for example through converting sawmill waste into fuel pellets. Realising these opportunities, however, requires technology, surmounting logistical difficulties and capital.

Generally speaking, across Russia as a whole, overall logging rates in early 2009 are about 25% of annual allowable cut (AAC), meaning there could be potential to increase this without compromising sustainable forestry practices. The biggest challenges to increasing this in practice are that the most economically feasible and physically accessible forest resources are already under management. Remote regions may offer future growth potential. However, despite the low national rates, unsustainable and illegal logging practices are prevalent at local levels.

While Russia's forestry legislation is currently contradictory and difficult to interpret, the new Forest Code may alleviate some of the primary challenges, such as the current cost disadvantage borne by companies practising sustainable forest management. Federal and local governments are actively seeking foreign investment, especially in districts without substantial oil and gas resources (which includes most of the districts with economically attractive forest resources). Tariff structures that promoted the export of raw timber rather than processed wood have also been overhauled.

Corruption, while still present, is less of a problem than many perceive it to be. According to Transparency International and the World Economic Forum, the perception of Russia's corruption is substantially higher than actual levels of corruption such as irregular payments in public contracts, the business cost of corruption, and the prevalence of illegal political donations.

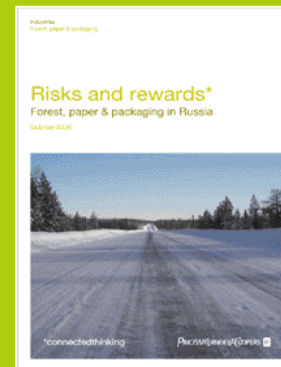
Generally speaking, the logging industry in Russia is highly fragmented, undercapitalised, overly labour-intensive, and low-paid (wages are typically considerably lower than in paper plants), with a high incidence of undocumented logging and a poor health and safety record. There is considerable room for improvement in the equipment, staffing and operating methods of many of these companies.

It is notable how many Western companies have entered the market in the past two years. Many Western companies that have been operating successfully in Russia stress the importance of being good corporate citizens. This means, among other matters, setting an example of sustainability, both in terms of environmental issues and also in being actively involved in supporting local communities.

Further information

For more detailed information on Russia see [“Risks and rewards – Forest, paper and packaging in Russia”](#)

This report includes an economic and market overview followed by detail on subsectors including forestry and logging, processed wood products, pulp, paper and paperboard, paper packaging and non-paper packaging. The report concludes with an analysis of the risks and rewards of doing business in Russia.



2 Portfolio Management



One of the hardest challenges in implementing forestry sustainability policies can lie in improving the performance of existing clients.

This section provides guidance to help banks assess and manage client-related risks at a portfolio level. A framework for assessing client performance and assigning risk rating is provided, as well as some guidance for reviewing client action plans.

Portfolio management

Client reviews: Organisational performance

Client reviews: FMU / supply chain performance

Reviewing an action plan

Assessing sustainability risk in legacy clients

The table and guidance included here and on the following pages outlines a possible approach to assessing the sustainability risk associated with legacy clients. The approach will necessarily require tailoring to the bank's particular circumstances. A review of legacy clients should acknowledge existing client contracts. Where clients breach bank policy, banks should open negotiations to redress these violations within the framework of client agreements.

A framework for reviewing client performance and risk should be based on bank policy structure and client performance requirements against which new and existing clients can be assessed. The bank has a range of options for assessing legacy clients, from the management interview to a template as exemplified below to assess conformity to bank policy.

Additional due diligence deemed necessary may be conducted at the bank's or client's expense. It may be appropriate to attach weightings to policy issues identified in the policy framework such that a balanced picture of the sustainability of a client's operations is obtained.

Weighting should be tailored to the nature of the existing portfolio (e.g. upstream / downstream, Northern / Southern hemisphere), and to the relative importance attached to the various policy requirements. For example, the bank may consider labour issues to be particularly critical in the regions in which it is active, thereby assigning a greater weighting to Human Rights and Labour Standards.

Depending on the ambition level of the policy document, policy compliance may be achieved at any point beyond

that at which basic legality and credible progress towards certification is achieved. It may be the intention to strengthen policy over time and move clients towards best practice.

The overall sustainability risk rating is determined by the level of compliance in each area, balanced against the weighting attached to those areas by the bank, and should broadly reflect the bank's appetite for risk and the letter and spirit of the bank's environmental and social lending policies, specifically its forestry policy.

The eight areas in the sample below are consistent with the Management Interview and Client Performance Requirements as defined in the creation of a bank forestry policy.

Category	Weighting (%)	Outstanding client performance issues	Non-conforming / illegal	Legal	Sustainable / best practice
1 Management and Governance					
2 Resource Management					
3 Fibre Sourcing					
4 Eco-efficiency and Climate Change Mitigation					
5 Health and Safety					
6 Community Well-being & Stakeholder Engagement					
7 Human Rights and Labour Standards					
8 Reporting					
Overall sustainability rating					

Staff conducting these assessments will require training to understand how to identify and accurately assess the risks present in their clients' businesses.

Client Status Summary

There may also be a need to assess the legality / sustainability of different elements of a client's operations on an FMU (for logging companies) and/or timber by volume basis (for downstream operations) in order to determine the proportion of the client's operations that are compliant and to identify areas where corrective action is needed.

The FMU / supply chain performance summary should therefore split out and assess the client's operations as needed.

Complete with details of:

- For logging companies – active forest concessions and hectares covered.
- For primary processors – factories and volumes processed.
- For timber traders – volumes of timber traded.
- For all – the percentages of business in each of the four categories.

Status of individual forest areas under management, or timber processed and/or traded. AS AT DATE: XX/XX/2009

No certification or action plan	Action plan to legal (Ha/m ³)	Action plan to sustainable / best practice (Ha/m ³)	Certified sustainable / best practice (Ha/m ³)
FMU 1			
FMU 2 etc			
Area / volume			
% of total area / volume			

Status of individual forest areas under management, or timber processed and/or traded. AS AT DATE: XX/XX/2010 etc

No certification or action plan	Action plan to legal (Ha/m ³)	Action plan to sustainable / best practice (Ha/m ³)	Certified sustainable / best practice (Ha/m ³)
FMU 1			
FMU 2 etc			
Area / volume			
% of total area / volume			

Time-bound action plan – guidance

Where clients are not compliant with bank policy, the bank will want to develop an agreed-upon action plan for the client to demonstrate that they are on the path to compliance.

An action plan should have a specific timeframe and milestones to be agreed between the client and the bank.

A key priority of an action plan may be the progression to credible certification for a high proportion of the client's timber.

If certification is agreed to, the action plan provided to the bank should include details of a certification action plan (prepared by a credible external consultant if necessary), along with a summary of any Corrective Action Requests (CARs) identified in previous audits.

The client's operations should be subject to an annual external audit to verify any reported progress against the plan.

If any of the client's forestry operations are currently assessed as illegal, the period for the plan to achieve legality should be not more than three months. In addition, an action plan to stop illegal activities must be presented to the bank immediately if these are evident.

By the end of the plan period the client should achieve an agreed acceptable level, as evidenced by the client status summary. For example the bank may set a minimum target of 70% in the sustainable / best practice category, with a maximum of 30% in the legal category (not yet sustainable), and clearly no FMU / timber volume in the illegal category. This would apply to FMU / timber originating from countries not deemed to be lower risk under the client evaluation decision tree.

Client basics

- A) Set out the period of the plan (2-5 years is conventional).
- B) Set out the aspiration of the plan, e.g. minimum 70% sustainable, maximum 30% legal, no illegal.
- C) Identify key milestones (six monthly or annual depending on the bank's portfolio review process).
- D) Identify in turn how each of the key client performance requirements will be addressed by the plan:
 - 1 Management and Governance
 - 2 Resource Management
 - 3 Fibre Sourcing
 - 4 Eco-efficiency and Climate Change Mitigation
 - 5 Health and Safety
 - 6 Community Well-being & Stakeholder Engagement
 - 7 Human Rights and Labour Standards
 - 8 Reporting
- E) Include details of certification action plan and any associated CARs (until third-party audits are in place)
- F) Include details of annual external audits to be performed.

Bank basics

- H) Set out clearly the action that the bank will take if key milestones are not met.
- I) Explain the review process that will be undertaken, and the frequency of review.

3 Policy Development



A carefully considered and pragmatic approach to policy development is crucial for banks wishing to continue or grow a sustainable relationship with the forest products sector.

This section provides guidance on best practice forestry policy development, suggestions for policy content, and advice on implementation and transparency.



Integrated policy development model

Suggested Internal Bank Forestry Policy and Guidelines

Relevance to the bank

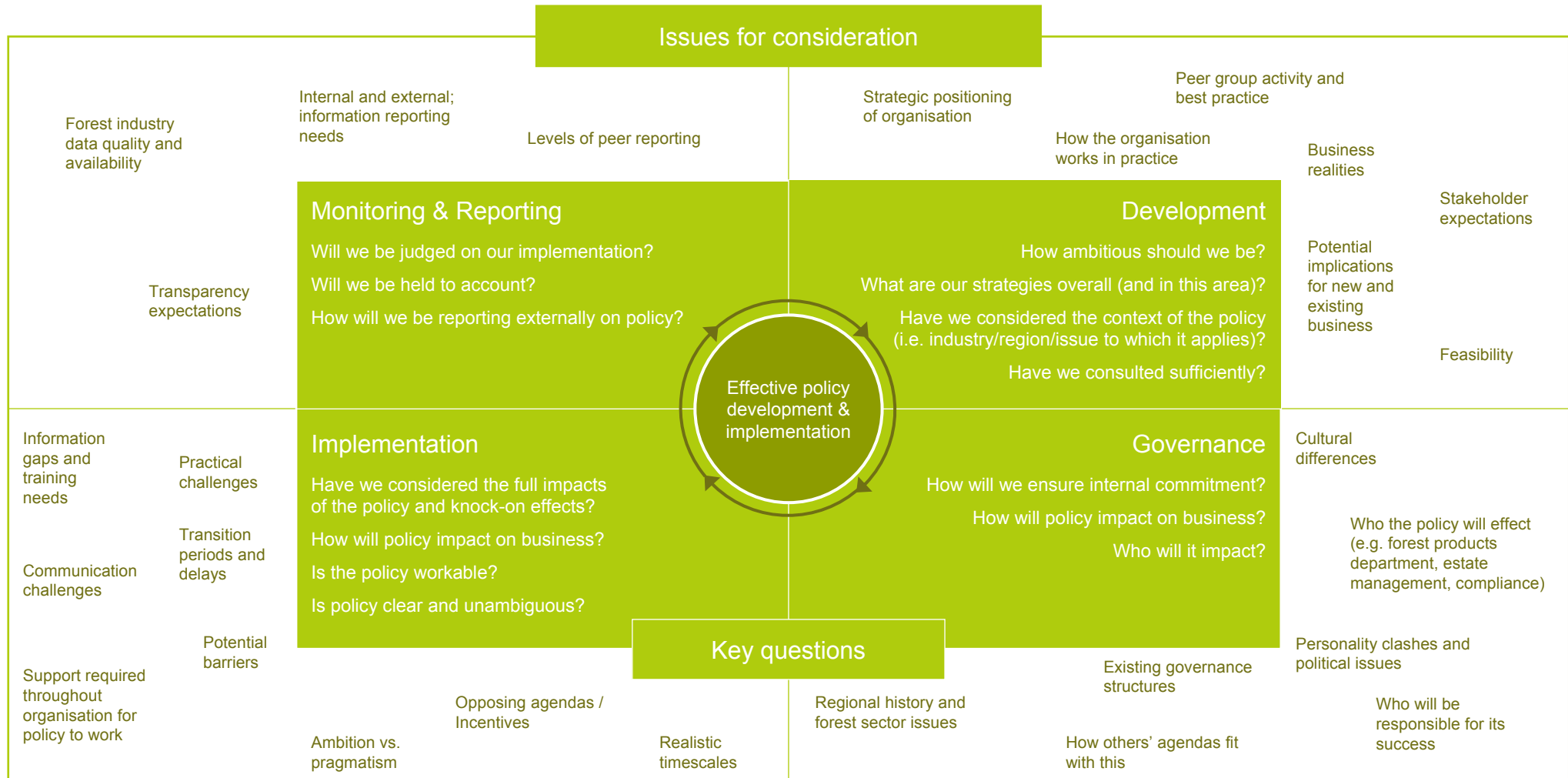
Context and issues

Scope of policy

Client performance requirements

Policy implementation and transparency

The diagram below highlights the key issues and questions banks will want to consider at group strategy, risk and compliance levels. Forest products industry teams will need to understand the policy and be consulted on the practical implications.



Component	Description of Component	Content Options Reflecting Good Practice
Relevance to the bank	Provide an indication of the types of business activities and subsectors with which the bank is currently involved	<p>It is advisable to provide a brief description of the sector's relevance to the bank, including the extent of the bank's current involvement, for instance sub-sectors and nature of activities, e.g. forestry (plantations), forestry products (timber, palm oil, biofuels) and pulp/paper. The policy should state clearly if there are any activities to which the bank is not exposed, e.g. pulp and paper. Also, if known, any forward-looking statements regarding the bank's involvement in the sector could be included, as well as any forthcoming policy developments on related issues (e.g. biofuels, climate change etc)</p> <p>Policies may also need to cross reference each other, e.g. where timber is part of the supply chain for furniture manufacturers; how the biofuels policy reflects the climate change policy.</p> <p>The bank could outline where it sees opportunities for future engagement with the sector, e.g. new financing mechanisms such as forest bonds, and how it plans to capture such opportunities.</p>
Context and issues	A description of the nature of environmental and social issues in the forestry sector, and the context within which it operates globally, e.g. forthcoming regulation etc	<p>The bank could consider providing:</p> <ul style="list-style-type: none"> • an outline of the sector-specific environmental and social issues, e.g. illegal logging, impacts of palm oil, biodiversity loss/destruction • an outline of the cross-cutting environmental and social issues, e.g. impacts on indigenous peoples dependent on forests, bribery and corruption, links to climate change • a description of any relevant regulatory developments, e.g. EU Biofuels directive • an explanation of how this policy links to the bank's overall policy framework, and to other sector/issues policies and industry initiatives, including those to which they are party. For example, explain linkages to: <ul style="list-style-type: none"> • Equator Principles – IFC Performance Standards, e.g. biodiversity, indigenous peoples • Other relevant Sector Policies – Energy, Agriculture • Other relevant Issues Policies – Climate change, Human rights • If appropriate, reference could also be made with regard to the bank's approach to high-risk countries, and how this links to the implementation of the Forestry Policy.
Scope of policy	An explanation of which parts of the bank's operations the policy applies, which sub-sectors, and whether the policy also includes downstream business activities	<p>A best-practice approach would be for the policy to be all-encompassing and therefore to include:</p> <ul style="list-style-type: none"> • all lending activities and other forms of financial assistance, • debt and equity capital markets activities, • asset management, • trade finance, and • advisory work.

Component	Description of Component	Content Options Reflecting Good Practice
Client performance requirements	<p>A description of any relevant:</p> <ul style="list-style-type: none"> • Minimum Standards • Best practice • Voluntary / External initiatives • Independent Verification • Exclusions 	<p>The bank should consider whether the Forestry Policy will include explicit exclusions/prohibitions and restrictions (e.g. illegal logging, operations in UNESCO World Heritage sites).</p> <p>In terms of specific client performance requirements, the bank should require its clients to:</p> <p>1 Management and Governance</p> <ul style="list-style-type: none"> • Apply corporate policies and procedures to meet all applicable legal requirements • Work against corruption and illegal practices in all their forms. <p>2 Resource Management</p> <ul style="list-style-type: none"> • Use sustainable forest management in forests they own, lease or manage to provide fibre, timber and other forest products and valuable ecosystems services. • Progressively and systematically introduce credible forest certification in the forests they own, lease or manage, against a time-bound plan. • Seek to conserve important biodiversity and cultural values (protecting 'special places') and to optimise the social, environmental and economic benefits of managed forests. • Respect the lawful access and tenure rights of indigenous peoples and other community members directly affected by forestry operations. • Proactively seek to resolve any potential land disputes through dialogue, independent arbitration or the legal system. <p>3 Fibre Sourcing</p> <ul style="list-style-type: none"> • Ensure legal ownership of all fibre and wood utilised, and comply with all applicable laws in forestry operations. • Introduce credible, independently certified wood-tracing systems to address significant risks. <p>4 Eco-efficiency and Climate Change mitigation</p> <ul style="list-style-type: none"> • Promote renewable and efficient use of key resources (raw materials, water, energy and chemicals) and set and report on appropriate reduction targets. <p>5 Health and Safety</p> <ul style="list-style-type: none"> • Strive for continuous improvement in occupational health and safety, and report accidents and injuries in the workplace. <p>6 Community Well-being & Stakeholder Engagement</p> <ul style="list-style-type: none"> • Contribute to economic health, employment and community service in the communities in which they operate. • Engage in, listen to and respond to local sustainability expectations and concerns related to their operations. <p>7 Human Rights and Labour Standards</p> <ul style="list-style-type: none"> • Respect all national laws for human rights and labour standards and, where these are lacking, use internationally agreed standards. <p>8 Reporting</p> <ul style="list-style-type: none"> • Publish a periodic report reflecting progress against these requirements. <p>Banks may choose to further extend their policy reach and include additional requirements or restrictions such as excluding natural forest conversion. .</p>

Component	Description of Component	Content Options Reflecting Good Practice
<p>Policy implementation and transparency</p>	<p>A description of:</p> <ul style="list-style-type: none"> the availability of the policy in the public domain, the role of external stakeholders in policy development and review processes going forward, the governance and accountability mechanisms in place 	<p>Overarching policy implementation principles and guidance</p> <p>1. Demonstrating commitment</p> <p>The Board of Directors of the bank will be committed to ensure that compliance with the sustainable forest financing policy is achieved by the entire organisation of the bank. All exceptions to the policy should be approved by Environmental and Social Risk Assessment and a member of the Board of Directors.</p> <p>2. Assigning responsibility and accountability</p> <p>The accountability for the implementation and monitoring of the policy will be the responsibility of a designated member of the bank's Board of Directors.</p> <p>3. Transparency</p> <p>The bank should consider the appropriate level of transparency – will the full Forestry Policy be in the public domain (best practice), or just a summary of the full policy?</p> <p>The bank should provide an account of its stakeholder engagement process, and how the views of a range of stakeholders were fed into the policy development process. Similarly, it would be advisable to comment on ongoing engagement with stakeholders, and how this relates to policy review. External stakeholders should include NGOs, media, shareholders, the socially responsible investment (SRI) community, customers and relevant think-tanks / academic institutions.</p> <p>The bank should consider the extent to which it will report externally on the implementation of policies, and share these intentions, e.g. metrics and KPIs to be publicly disclosed going forward. Examples of such metrics include: the number of transactions to which the policy was applied; the number of deals rejected due to non-compliance; number of breaches of policy investigated and the action that was taken; the number of clients that are / are not compliant with requirements set out in the 'Client performance standards' section.</p> <p>4. Capacity Building</p> <p><i>Training Programmes:</i> The Bank undertakes training programmes of relevant personnel involved in the approval processes for financial services to ensure an adequate level of understanding of the policy and the ability to apply it appropriately.</p> <p><i>Centre of Competence:</i> The Bank will assign one of its units as a 'Centre of Competence' as the responsible officers (e.g. Environmental Risk Assessment Unit) that report directly to the Board member responsible for oversight of the policy.</p> <p>5. Internal Audits</p> <p>The bank will introduce an internal audit programme to verify internal compliance with the policy.</p> <p>6. Annual Audits</p> <p>Annual audits of the Client will be undertaken by an independent third party or by the bank, to assess compliance with the conditions of the policy. The summary results of these audits will be made public. Should the Client be found to be in default of the conditions of its loan facility, this would be considered an event of default.</p> <p>7. External Audits</p> <p>To execute external audits of Clients, the bank will work out and propose an indicator framework that allows verification of each of the conditions that are part of this policy (and can be used to assess whether the policy objectives are met). Indicators should be specific, measurable, appropriate and realistic.</p>

Component	Description of Component	Content Options Reflecting Good Practice
<p>Policy implementation and transparency (cont)</p>		<p>Specific policy implementation procedures</p> <p>To ensure that your sustainable forest financing policy is applied correctly to all relevant activities of the bank, the following procedures are recommended alongside those suggested in the client evaluation procedures:</p> <ul style="list-style-type: none"> • Before offering any new financial services to a client, the responsible bank officer will check if the policy is applicable to the client’s request. In case of pre-existing relationships this check should be performed during the semi-annual or annual review. • If the responsible officer concludes that the policy is applicable, a social and environmental due diligence procedure is executed, for example the client evaluation procedures laid out in section 1, to check whether the above-mentioned policy is met. • The client is to provide all necessary information that allows the Bank to assess whether the policy is met. When any of the requirements of the policy are not met, or if any doubt remains concerning the reliability of the information provided by the client, the responsible officer shall undertake or obtain a bank-approved independent audit of the client’s performance with respect to environmental and social issues. • To complement the information provided by the Client, the responsible officer or the bank-approved independent auditor consults with government authorities, local peoples, NGOs and other relevant stakeholders. • The Bank develops and implements clear procedures on how, during the due diligence procedure, to deal with ambiguity concerning the impacts on the environmental and social qualities of forests as outlined in the policy, and when and how to refer the decision to the bank’s risk management committee in case of any doubts. • Loan documentation should include the conditions set out in the policy, with an understanding that false declarations of compliance or failure to adhere to the conditions are considered events of default. To ensure the continued compliance with the bank’s policies, the bank may request that certain conditions be met in order to approve a financial service. In such cases, these conditions will be included in the written ‘understandings with the client’. Documented non-compliance and failure to adhere to these conditions or consistent unwillingness by the client to acknowledge outstanding issues would require significant action to be taken on the part of the bank to avoid defaulting on the loan. • In the case of existing relationships that contravene the bank’s policies, the bank will: request the client to comply with the bank’s policies and ensure full compliance or measurable progress such as a time-bound action plan to move towards full compliance in the next semi-annual or annual review of the relationship. The procedures outlined in section 2, portfolio management, should facilitate this process.

4 Procurement



In 2007, the WBCSD and WRI published *Sustainable Procurement of Wood and Paper-based Products*.

This comprehensive document provides bank internal procurement departments with the information, resources and contacts to ensure that sustainability and legality aspects are considered during procurement in a manner consistent with the Bank's commercial sustainability policies.

The links below take the user to a sample procurement policy and to specific sections of interest in the on-line procurement guide.



Sample
procurement
policy



Origin

Information
accuracy

Legality

Sustainability

Special places

Climate change

Environmental
protection

Recycled fibre

Other resources

Local
communities
and indigenous
peoples

1.0 General Principles

_____ recognises that leadership carries a responsibility to the environment and, in particular, conserving the world's natural resources. As an industry leader, _____ is positioned to contribute to the development and implementation of environmental solutions in the forest products sector. We are committed to a course of action that reduces risk for society and the environment. As we learn about the impacts of our actions, we take responsible steps to reduce those that are negative. These actions are thoughtfully viewed through a life-cycle filter, as opposed to a single criterion approach.

As a buyer/financer of forest products, we are committed to:

- Building a business that is socially, environmentally and economically sustainable on a long-term basis
- Sourcing/financing forest products that are derived from forests that are managed to promote sustainable forest management and/or from recycled sources
- Encouraging recovery of recycled papers, and thereby facilitating higher levels of recycled content paper
- Sourcing/financing our products from suppliers that are working towards continual improvement of their forest management and production processes
- Sourcing/financing our products based on a life-cycle approach
- Working with our stakeholders to ensure our procurement/financing strategy is socially and environmentally responsible, and economically viable

2.0 Responsible Fibre Sourcing/Financing

_____ cares about our forests and the products made from forests. It is our commitment and our challenge to know the sources of our supply and to work with our suppliers/ clients to meet and/or exceed regulatory requirements for sustainable forest management.

By [date] we will require all suppliers to provide traceability or chain of custody of their fibre back to the forest area of origin.

2.1 Sustainable Forest Management (SFM) 3rd-Party Certification

_____ will give preference to suppliers/borrowers who meet and go beyond legal requirements for forest management by seeking independent third-party certification to recognised and credible SFM standards. We also support an inclusive approach to certification and recognise the following standards:

- X
- X
- X

There may be other SFM certification standards developed in the future that we may add to the above list. We support mutual recognition efforts through independent assessments that include comprehensive review of the rigorous and critical elements of the entire certification program, such as xxxx.

2.2 Forest & Biodiversity Conservation

_____ values forest products suppliers/borrowers that seek to conserve the ecological and cultural values of forests and the biological diversity they contain; maintain the habitat of forest-dependent species; support the conservation of biodiversity; and collaborate with conservation organisations, government and others to ensure the long-term sustainability of the resource.

2.3 Illegal Logging/Legally Sourced

_____ will not knowingly purchase/finance forest products that are illegally harvested.

3.0 Environment Performance

3.1 Air & Water Quality

_____ is committed to source/finance its products from suppliers who can demonstrate that they meet and go beyond the requirements of air and water quality regulations and collaborate with conservation organisations, government, research organisations and others to protect and improve long-term air and water quality.

3.2 Climate & Energy

_____ values forest products suppliers/borrowers that are fuel switching or have already switched to less greenhouse gas-intensive energy sources such as carbon-neutral biomass, and who are committed to further emission intensity reductions and/or energy efficiency.

3.3 Efficient Use of Resources

_____ values forest products suppliers/borrowers that promote the efficient use of natural resources in their operations, such as fibre use optimisation; reuse and recycling; and decreasing water use in operations.

3.4 Recovery & Recycling

_____ is committed to encouraging recycling of paper and wood; implementation of paper collection programmes in our corporate offices; and recognising that recycled content will ultimately be driven by a variety of factors including consumer requirements that include strength, brightness, stiffness; availability of supply; as well as the environmental cost/benefit of transporting recovered paper to achieve recycled content objectives.

4.0 Social Responsibility

_____ values forest products suppliers/borrowers that ensure the health and safety of their employees and their communities, support and improve community development, and collaborate with aboriginal peoples.

5.0 Research & Education

_____ will educate our staff, suppliers, shareholders and customers about our commitment to continually improving environmental performance, and will promote awareness and accountability on related issues. We support those organisations that contribute to research on sustainable forest management, conservation of biological diversity and the development of new technologies that will improve resource utilisation and efficiency, while minimising environmental impacts.

6.0 Monitoring & Reporting

_____ encourages all suppliers/borrowers to monitor and regularly report on their sustainability performance. We will produce an annual report on our sustainable procurement/financing commitments and progress in achieving our sustainability objectives.

7.0 Continual Improvement

_____ will continue to look for opportunities to improve our procurement/financing policy and associated partnerships and initiatives, as we learn through experience, new research and collaboration with our stakeholders.



Definitions related to special places.

Developed by	Definition	Characteristics	Management preferences	Notes
Alliance for Zero Extinction (AZE)	AZE sites (AZE, 2007)	Focus on sites in most urgent need of conservation to prevent species extinctions. Priority sites must meet the three following requirements: <ul style="list-style-type: none"> • Endangerment – at least one endangered or critically endangered species listed by IUCN. • Irreplaceability – the area contains the overwhelmingly significant known resident population of the endangered or critically endangered species, or it contains the overwhelmingly significant known population for one life-history segment of the species. • Discreteness – the area has a definable boundary within which the habitats, biological communities, and/or management issues have more in common with each other than they do with those adjacent areas. 	Management for conservation.	A global joint initiative of 52 biodiversity conservation organisations. Alliance members include BirdLife International, Conservation International, Wildlife Conservation Society, and World Wildlife Fund US. 595 sites around the world have been identified to protect 794 species of mammals, birds, reptiles, amphibians and conifers.
American Tree Farm System (ATFS)	Special sites (AFF, 2004)	Sites of special interest because of their recreational, historical, biological, archaeological and geological features.	To the extent practicable, management practices should protect these sites.	Special sites can be identified directly on the ground by landowner and an ATFS inspection forester.
Conservation International	Biodiversity hotspots (Conservation International, 2007)	Hotspots are priority global areas for conservation. Hotspots are characterised by exceptional levels of plant endemism (at least 1,500 species of vascular plants) and by serious levels of habitat loss (lost at least 70% of its original habitat). Worldwide, 34 biodiversity hotspots have been identified. Collectively, these hotspots are estimated to house high levels of biodiversity, including at least 150,000 plant species as endemics and 77% of the world's total terrestrial vertebrate species.	Conservation can be carried out through a variety of approaches, including the establishment of protected areas and the implementation of economic alternatives.	Conservation outcomes identified for individual hotspots are defined through regional-scale planning processes; maps of biodiversity hotspots and species databases are available at www.biodiversityhotspots.org .
Conservation International	Major tropical wilderness areas (Mittermeier et al., 2001)	A complementary concept to the biodiversity hotspots, the major tropical wilderness areas have high diversity and endemism, low human population density, and remain largely intact.	Conservation can be carried out through large scale conservation set-asides.	Include the Guyana Shield region (Suriname, Guyana, French Guiana, Venezuela and adjacent parts of Brazil), the upper Amazonian (Brazil, Colombia, Ecuador, Peru and Bolivia); a substantial portion of the Congolese forests block/Congo River Basin in Central Africa; and most of the island of New Guinea and adjacent smaller Melanesian islands (Solomon Islands, New Britain, New Ireland and Vanuatu).



Developed by	Definition	Characteristics	Management preferences	Notes
Birdlife International, Conservation International, and Plantlife International	Key biodiversity areas (Eken et al., 2004)	<p>Building on the concept of hotspots, Conservation International is leading an effort to map and identify key biodiversity areas. These are globally important sites that are large enough or sufficiently interconnected to support viable populations of the species for which they are important.</p> <p>The definition is based on four criteria:</p> <ul style="list-style-type: none"> • Globally threatened species • Restricted-range species • Congregations of species that concentrate at particular sites during some stage in their life cycle • Biome-restricted species assemblages <p>The first criterion addresses vulnerability of species, while the other three cover different aspects of irreplaceability. Key biodiversity areas can be within biodiversity hotspots.</p>	Conservation of the sites to reduce global biodiversity loss.	Groups identifying these areas include: Birdlife International (Europe, Middle East, Africa); Plantlife International and Dutch Dragonfly Conservation (Europe); IUCN and Alliance for Zero Extinction (global); and Conservation International (Andes and Africa). More details at www.plantlife.org.uk
Finnish Forest Certification System	Key biotopes (Mikkela et al., 2001; FFCS, 1999)	<ul style="list-style-type: none"> • Sites designed for protection under the Finnish Nature Conservation Act, such as wild woods rich in broad-leaved deciduous species, hazel woods, juniper and wooded meadows. • Habitats recognised as especially valuable under the Finnish Forest Act, such as the surroundings of springs and streams, hardwood spruce swamps, and heath land forest islets on un-drained wetlands. • Additional habitats such as old-growth conifer forests, mixed forests and broad-leaved forests, and forest meadows in traditional landscapes. • Small water biotopes listed in the Finnish Water Act. 	Key biotopes are to be left in their natural state and only subject to gentle management operations.	Guidelines for assessing and protecting key biotopes have been produced (Korpela, 2004); key biotopes have been identified by different stakeholders.
ForestEthics, Natural Resources Defense Council, Rainforest Action Network, Greenpeace	Endangered forests (Forest Ethics et al., 2006)	<p>Forests that require protection from intensive industrial use in order to maintain their outstanding ecological values. Endangered forests include: forests that maintain landscape integrity; rare forest types; forests with high species richness; forests with a high concentration of rare, endangered and endemic species; forests that provide core habitat for focal species; and forests that exhibit rare ecological and evolutionary phenomena. Endangered forests are identified as:</p> <ul style="list-style-type: none"> • Wilderness forests and intact forest landscapes • Remnant forests and forests with restoration values • Forests ecologically critical for the protection of biological diversity, such as naturally rare forest types, high endemism, or the habitat of focal conservation species 	No intensive industrial activities or extraction. 'No-go' zones. Endangered forests are defined as a subset of HCVFs due to their outstanding ecological values.	ForestEthics and its partners are working to define and map endangered forests of the world. The definition is meant to complement certification of logging operations under FSC (www.forestethics.org).
FSC	High conservation value forests (HCVF) (FSC, 1996)	<ul style="list-style-type: none"> • Forests that contain globally, regionally, or nationally significant concentrations of biodiversity values • Globally, regionally, or nationally significant large landscape-level forests • Rare, threatened or endangered ecosystems • Forest areas providing basic services of nature in critical situations • Forest areas fundamental to meeting basic needs of local communities • Forest areas critical to local communities' traditional cultural identity 	Management to maintain or enhance features of these forests.	<p>A variety of tools have been developed to help identify these sites, including:</p> <ul style="list-style-type: none"> • a toolkit (www.proforest.net) • a resource network (www.hcvf.org) • a sourcebook (www.proforest.net) • There are various efforts to identify HCVFs in Indonesia, Russia, Romania and other countries.



Developed by	Definition	Characteristics	Management preferences	Notes
Natura Networking Programme	Natura 2000 Sites (Natura Networking Programme, 2007; European Commission, 2003)	A network of Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) in the European Union. SPAs are for the protection and management of areas important for rare and vulnerable birds as specified by the EU Parliament Birds Directive, while SACs are areas established for the protection and management of rare and vulnerable animal and plant species, and habitats, as specified by the EU Parliament Habitats Directive. Among other things, the Birds Directive seeks to conserve, maintain or restore the biotopes and habitats of all bird species naturally living in the wild in the European Union (European Union, 2006). The Habitats Directive includes: <ul style="list-style-type: none"> • Natural habitats in danger of disappearance in their natural range • Those having small natural range following their regression or by reason of their intrinsically restricted area • Those presenting outstanding examples of typical characteristics of more of the following biogeographical regions: Alpine, Atlantic, Continental, Macronesian and Mediterranean (European Union, 2007) 	Appropriate economic activity to maintain or improve the conservation status of Natura 2000 Sites is allowed. Member states identify and propose a list of sites for their territory and are in charge of managing these sites. Management can include strictly protection and sustainable management.	Natura 2000 Sites are identified and proposed by countries. For each site, national governments submit standard information describing the site and its ecology; this information is to be validated by the European Topic Centre for Nature Conservation. A complete GIS database of Nature 2000 Sites will be built after compilation and validation. Detailed information and maps can be obtained directly from the national governments. Links to governmental institutions with information can be found at www.ec.europa.eu/environment/nature
SFI	Forests with exceptional conservation value (FECV) (SFB, 2004)	Globally threatened or rare forests, with high levels of endemism, or that have little human intervention; forests containing high biodiversity value, unique or rare forest communities, viable populations of rare individual plant and animal species.	Managed in a way that protects their unique qualities and promotes conservation of biodiversity.	FECVs are identified with assistance from information provided by NatureServe in the US and Canada. Outside North America, these areas can be identified in base of biodiversity hotspots and other important areas in the tropics.
Wildlife Conservation Society	Last of the wild (Sanderson et al., 2002)	The largest, least influenced areas around the world where the full range of nature may still exist with a minimum of conflict with existing human structures. The last of the wild were identified based on an assessment of the human footprint, which compiles the following types of data as proxies for human influence: population density, land transformation, accessibility, and electrical power infrastructure.	These areas are a guide to opportunities for effective conservation.	569 places have been identified. Maps are available at www.ciesin.columbia.edu/wild_areas/
World Bank	Critical forests (World Bank, 2002B)	Critical forest areas are the subset of natural forest lands that cover: <ul style="list-style-type: none"> • Existing protected areas and areas officially proposed by governments as protected areas, areas initially recognised as protected by traditional local communities, and sites that maintain conditions vital for the viability of these protected areas. • Sites identified as recognised by traditional local communities; areas with known high suitability for biodiversity conservation; and sites that are critical for rare, vulnerable, migratory, or endangered species. 	Definition is for internal purposes. The Bank would not finance projects that would involve significant conversion or degradation of critical forest areas.	Critical forests are identified by the bank or an authoritative source determined by the regional environment sector unit.
WRI	Frontier forests (Bryant et al., 1997)	Relatively undisturbed large tracts of forests are capable of sustaining viable populations of all native species.	No management preferences outlined.	Maps available at www.globalforestwatch.org
WWF	Global 200 (WWF, 2007)	Outstanding and representative eco-regions of each major habitat type in the world based on their biodiversity patterns and degree of threat. Global 200 harbour globally important biodiversity and ecological processes and represent the world's most outstanding examples within each major habitat type.	Primary objective is to promote their conservation.	Maps available at www.worldwildlife.org . WWF also uses the HCVF concept to define special places at a more local scale.

Client performance requirements

We expect our clients (where relevant) to:

I. Management and Governance

- Apply corporate policies and procedures to meet all applicable legal requirements
- Work against corruption and illegal practices in all their forms.

II. Resource Management

- Use sustainable forest management in forests they own, lease or manage to provide fibre, timber and other forest products and valuable ecosystems services.
- Progressively and systematically introduce credible forest certification in the forests they own, lease or manage, against a time-bound plan.
- Seek to conserve important biodiversity and cultural values (protecting 'special places') and to optimise the social, environmental and economic benefits of managed forests.
- Respect the lawful access and tenure rights of indigenous peoples and other community members directly affected by forestry operations.
- Proactively seek to resolve any potential land disputes through dialogue, independent arbitration or the legal system.

Questions for management

1. What environmental and social policies / procedures are in place, are they current (i.e. last reviewed in past 5 years), what were your sources of information in developing these policies (e.g. which stakeholders were consulted and how)?
2. Is there a strategic / management plan in place to address environmental and social issues? Does it include FMU / CoC certification? Has it been implemented? This may include the adoption of a 'stepwise' approach to achieving certification.
3. How are these policies communicated and implemented, and who is responsible?
4. Can management provide copies of policy documents and evidence of procedures in place (e.g. whistle-blowing hotline, forest management permits, licences and agreements)?
5. Who has senior level responsibility for environmental and social issues?
6. Is the company aware of how much is already planted and how much is plantable in the future within the concession or forest management area?
7. What training, SFM methods and practices does the company use and employ?
8. Has the company mapped and delineated special places and areas with high conservation value within their concessions or forest management area?
9. Have there been any significant legal claims, complaints or disputes regarding forest management practices, land rights or resettlements? How were they resolved?
10. Can they provide copies of:
 - the forest management plan (ideally reviewed or updated in last five years)
 - certification gap analyses
 - audit reports (including VLO/VLC certificates and step-wise approach audits)
 - certification documents (and % of total FMU area certified). See [Certified Wood Search](#) or [FSC](#).

Client performance requirements	Questions for management
<p>III. Fibre Sourcing</p> <ul style="list-style-type: none"> • Ensure legal ownership of all fibre and wood utilised and comply with all applicable laws in forestry operations. • Introduce credible, independently certified wood-tracing systems to address significant risks. 	<p>11. Can the company provide evidence that it has good title to all of its fibre (from own operations or suppliers') (e.g. land or timber deeds, contracts, bills of lading or other commercial documentation, VLO (Verification of Legal Origin)/VLC (Verification of Legal Compliance)/CoC certification)?</p> <p>12. Can the company provide an analysis of suppliers, or profile of the supply base, including information on legality risks?</p> <p>13. What wood tracing or Chain of Custody systems does the company use?</p>
<p>IV. Eco-efficiency and Climate Change mitigation</p> <ul style="list-style-type: none"> • Promote renewable and efficient use of key resources (raw materials, water, energy and chemicals) and set and report on appropriate reduction targets. 	<p>14. What information does the company monitor on resource (especially non-renewable) use, and has it set any reduction targets?</p> <p>15. Is the company training staff on eco-efficiency and/or making investments so as to improve this?</p> <p>16. What actions is management taking on energy efficiency and sourcing of low carbon energy?</p>
<p>V. Health and Safety</p> <ul style="list-style-type: none"> • Strive for continuous improvement in occupational health and safety and report accidents and injuries in the workplace. 	<p>17. What policies and targets are in place to prevent workplace-related fatalities, injuries and accidents?</p> <p>18. What are the company's statistics on fatalities, lost-time incidents, hospitalisations and recordable incidents in the past five years?</p> <p>19. What training, safe working practices, personal protective equipment and accident reporting processes are in place?</p>

Client performance requirements	Questions for management
<p>VI. Community Well-being & Stakeholder Engagement</p> <ul style="list-style-type: none"> Contribute to economic health, employment and community service in the communities in which they operate. Engage in, listen to and respond to local sustainability expectations and concerns related to their operations. 	<p>20. What mechanisms does the company use to engage with local communities build and maintain their support for operations?</p> <p>21. What mechanisms does the company use to ensure they have free, prior and informed consultation with communities? If community consultation has raised issues, has it resulted in action being taken to resolve them?</p> <p>22. Have a wide range of existing community groups been consulted (including minority groups)?</p> <p>23. Has the company assessed and taken into account existing formal and informal and historic land-use rights that local communities and/or indigenous peoples may have within their forest concessions or forest management areas?</p> <p>24. What community initiatives does the company run, and what investments have been made (e.g. in health, education, housing, transport)?</p> <p>25. Have any formal agreements (e.g. memoranda of understanding, benefit sharing agreements) been signed with local communities?</p> <p>26. Have formal community groups been formed? Who participates, and how are they organised?</p>
<p>VII. Human Rights and Labour Standards</p> <ul style="list-style-type: none"> Respect all national laws for human rights and labour standards and, where these are lacking, use internationally agreed standards. 	<p>27. What processes does the company have in place to ensure compliance with applicable labour laws?</p> <p>28. What efforts has the company made to recognise and support international labour and human rights standards, including those areas covered by the 10 principles of the UN Global Compact?</p>
<p>VIII. Reporting</p> <ul style="list-style-type: none"> Publish a periodic report reflecting progress against these requirements. 	<p>29. What information can the company show the bank or the general public to demonstrate its efforts in the above areas? Is this independently verified?</p>

Selected additional forestry resources

Government and multilateral organisations

[Center for International Forestry Research \(CIFOR\)](#)

[Food and Agriculture Organization of the United Nations \(FAO\) Forestry](#)

[The World Bank Forests and Forestry](#)

[UK Government Central Point of Expertise on Timber Procurement \(CPET\)](#)

Stakeholder organisations

[Chatham House illegal logging site](#)

[Forest News Watch](#)

[The Forests Dialogue](#)

[Tropical Forest Trust](#)

Industry bodies / initiatives

[Round Table on Sustainable Palm Oil](#)

[Multistakeholder Forest Programme](#)

Selected additional forestry resources

Guidelines, reports and tools

[Forest Industry Carbon Assessment Tool \(FICAT\)](#)

[Forest Investment Review](#)

[Report on the Russian Forest Code 2006 and its implementation process](#)

[The Forests Dialogue's beyond REDD report](#)

[The Economics of Ecosystems and Biodiversity \(TEEB\) COPI \(Cost of Policy Inaction\) report](#)

[WRI/WBCSD Ecosystems Services Review Guidelines](#)

[WRI Sustainable Procurement of Wood and Paper-Based Products](#)

[USAID Orangutan Compact: A financial industry investment screening tool for the protection of wild orangutans](#)

Confirming certification status

[FSC info](#)

[Certified Wood Search](#)

[MTCC Malaysian Timber Council for Certification](#)

Sustainable natural forest management

- Is the company involved in land-use change or forest conversion?
- Does management know of any current sustainability issues in the supply chain, the company's own operations, local region or customer operations?
- Is there reliable publicly available information about SFM issues, including forest conversion or land-use change related to the company?
- Has the company developed a policy on SFM?
- Has the company participated in international collaborative measures to encourage sustainable forest management?
- Wood tracing systems (e.g. Chain of Custody programmes) are a key measure to ensure that forest products come from sustainable sources: is the company employing credible wood tracing systems to tackle significant risks?
- Certification is a key measure to encourage SFM: is the company working systematically towards certification for all its forestry operations?

Special places

- Is the company aware of any areas under its management that might qualify as 'special places'?
- Has the company been lobbied by interested parties or been subject to media coverage raising concerns over the handling of 'special places'?
- What procedures are in place to establish the existence of 'special places' before commencement of forestry activities?
- Has the company developed a policy to ensure the protection of 'special places'?
- Is the company participating in international collaborative measures to identify and protect 'special places'?

- Wood tracing systems (e.g. Chain of Custody programmes) can be a useful tool to assess whether special places have been adversely impacted on in the supply of forestry products: is the company employing credible wood tracing systems to tackle significant risks?
- Certification is a key weapon in the fight to protect the world's special places: is the company working systematically towards certification for all its forestry operations?

Planted forests

The two principal concerns about forest plantations are:

1. They may replace natural forest areas or areas in the forest landscape with unique qualities:
 - how recently was the primary forest or other vegetation cleared prior to establishment or planned forest plantation?
 - what condition was the forest cover in before clearance?
 - what efforts have been made to ensure that special places, high conservation value forest and forest with value to local and indigenous communities are protected?
 - has the company considered whether species selection and / or use of genetic material may exacerbate or help resolve environmental pressures?
2. They may be established in areas with insecure land tenure and be inconsistent with local laws or customs regarding land occupation, or lack authorisation or support of local and indigenous peoples.
 - what prior consultation was carried out with local communities?
 - do legal or customary rights conflict with planned activities?
 - will compensation of affected communities be needed and if so, what arrangements have been made?

- do just and fair methods exist to resolve disputes? Do local people have the resources and information to participate in dispute resolution?
- what mechanisms exist to ensure that local communities benefits are guaranteed?
- how are environmental functions protected to guard against soil erosion, flooding, pollution of watercourses etc.?

Legality

- Have there been any legal claims associated with its operations?
- Does management know of any legality issues in the supply chain, the company's own operations, local region or customer operations?
- Is there reliable publicly available information about illegal logging concerns related to the company?
- What governance arrangements and procedures are in place to manage legality risks, and does this extend to the supply chain?
- Has the company developed a policy on legality (e.g. requiring trading partners to have legal title, requiring warranties or indemnification for illegal activity)?
- Is the company participating in international collaborative measures to combat illegal logging?
- Wood tracing systems (e.g. Chain of Custody programmes) are a key weapon against illegal trade in forest products: is the company employing credible wood tracing systems to tackle significant risks?
- Certification is a key weapon against illegal logging: is the company working systematically towards certification for all its forestry operations?

Certification

- Has the company developed a policy on certification (e.g. accelerating certification efforts in high-risk regions)?
- Is the company's forest land certified to an internationally recognised standard, or is the company on a credible path to certification?
- Does the company have targets around purchasing certified wood and paper products?

Pollution and environmental management systems

- Has the company developed a clear and broad policy on pollution?
- Have there been any legal claims relating to pollution associated with its operations?
- Does the company have an EMS in place for all its manufacturing operations?
- Is the EMS audited to a recognised international standard by an accredited body?
- Does the scope of the EMS extend to the supply chain?
- Does management know of any pollution issues in the supply chain, the company's own operations, local region or customer operations?
- Is there reliable publicly available information about pollution issues related to the company?
- Has the company endorsed international collaborative measures to combat pollution?

Local communities and indigenous peoples

- Have the company's or its suppliers' forestry concessions been subject to claims by local or indigenous peoples about rights to land or resources?
- Has FPIC been applied to forest stakeholder community engagement?
- Is there reliable publicly available information about concerns over the treatment of local people or workers' rights related to the company?
- What procedures are in place to establish the existence of property rights claims on land or resources before commencement of forestry activities?
- Has the company developed a policy on indigenous peoples?
- Has the company developed a policy on local communities and workers' rights?
- Is the company participating in international agreements such as the UN's Agenda 21 and ILO's core labour standards?
- Wood tracing systems (e.g. Chain of Custody programmes) can be a useful tool to assess risks associated with social issues: is the company employing credible wood tracing systems to tackle significant risks?
- Certification is a key weapon against mistreatment of local communities and indigenous peoples: is the company working systematically towards certification for all its forestry operations?

Forest carbon and ecosystem services

Investors and lenders considering providing finance for forest carbon projects need to ensure that the projects focus on:

- Long-term carbon storage and sequestration in both forests and harvested wood products
- Enabling sustainable development
- Enhancing biodiversity

Macro-level questions

- Is a funding strategy in place and finance-raising moving?
- Are markets, methodologies, and validator understood?
- Have buyer appetite and concerns been established?
- Do developers and investors understand government / cabinet sentiment?

Micro-level questions

- Is there on the ground understanding on current land occupancy and stakeholders?
- Are practical risks being monitored systematically?
- Is a robust and reviewed model for carbon sequestration being used?
- Have legal rights over land and carbon been clarified?



ASEAN Association of South East Asian Nations	LEI Lembaga Ekolabel Indonesia (Indonesian Ecolabelling Institute)
CAR Corrective Action Requests	m3 cubic meter
CEPI Confederation of European Paper Industries	MTCC Malaysian Timber Certification Council
CITES Convention on International Trade in Endangered Species of Wild Fauna and Flora	NGO Non-governmental Organization
CoC Chain of custody	PEFC Programme for the Endorsement of Forest Certification schemes
CPET Central Point of Expertise on Timber	QACC Questionnaire for Assessing the Comprehensiveness of Certification Schemes/Systems
EU European Union	REDD Reduced Emissions from Deforestation and Degradation
FAO Food and Agriculture Organization of the United Nations	SA Soil Association
FCAG Forest Certification Assessment Guide	SCS Scientific Certification Systems
FERN Forests and the European Union Resource Network	SFI Sustainable Forestry Initiative
FLEG Forest Law Enforcement and Governance	SFM Sustainable forest management
FLEGT Forest Law Enforcement, Governance and Trade	SGS Société Générale de Surveillance
FMU Forest Management Unit	UNFF United Nations Forum on Forests
FSC Forest Stewardship Council	WBCSD World Business Council for Sustainable Development
GFTN Global Forest Trade Network	WTO World Trade Organization
GPA Government Procurement Agreement	WWF World Wide Fund for Nature (in the USA, World Wildlife Fund)
ha hectare	
HCVF High conservation value forest	
IAF International Accreditation Forum	
ICFPA International Council of Forest and Paper Associations	
IFC International Finance Corporation	
IFIR International Forest Industries Roundtable	
IPF Intergovernmental Panel on Forests	
ILO International Labour Organization	
ISEAL International Social and Environmental Accreditation and Labelling	
ISO International Organization for Standardization	
ITTA International Tropical Timber Agreement	
ITTC International Tropical Timber Council	
ITTO International Tropical Timber Organization	



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About the WBCSD

The World Business Council for Sustainable Development (WBCSD) brings together some 200 international companies in a shared commitment to sustainable development through economic growth, ecological balance and social progress. Our members are drawn from more than 37 countries and 22 major industrial sectors. We also benefit from a global network of some 55 national and regional business councils and partner organisations.

Our **mission** is to provide business leadership as a catalyst for change toward sustainable development, and to support the business licence to operate, innovate and grow in a world increasingly shaped by sustainable development issues.

Our **objectives** include:

- *Business Leadership* – to be a leading business advocate on sustainable development;
- *Policy Development* – to help develop policies that create framework conditions for the business contribution to sustainable development;
- *The Business Case* – to develop and promote the business case for sustainable development;
- *Best Practice* – to demonstrate the business contribution to sustainable development and share best practices among members;
- *Global Outreach* – to contribute to a sustainable future for developing nations and nations in transition.

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