FORESTRY AND PLANTATIONS

Key sector ESG aspects relevant to operations: Labour conditions | Health, safety & security | Resource efficiency and pollution prevention | Land access, use & acquisition | Biodiversity conservation & ecosystem services | Supply chains | Business integrity

1. APPLICABILITY

This Sector Profile is designed to help fund managers quickly familiarise themselves with the most frequent and important environmental, social and governance (ESG) aspects of investments in the forestry and plantations sector. It aims to be a starting point for thinking about ESG risks and opportunities, and not a detailed technical guidance document.

1.1 Using this Sector Profile

A company can be affected by non-sector specific issues such as impacts on Indigenous Peoples and cultural heritage. Therefore, each company must be carefully considered based on its specific characteristics and circumstances including scale of operation, location, technology utilised, management capacity, commitment and track record, and supply chains. Additionally, environmental and social (E&S) impacts, risks and opportunities in a particular company or sector can change over time for a number of reasons (e.g. changes in the applicable laws, or expansion of a company's activities or assets). Fund managers should have systems in place to identify such changes and manage any associated risks and impacts and, where possible, capitalise on new opportunities.

This Sector Profile draws on internationally recognised good practice standards and guidance, particularly the International Finance Corporation (IFC) Performance Standards and the World Bank Group Environmental, Health and Safety EHS Guidelines. The Sector Profile identifies key standards that are generally applicable to each sector (refer to the 'Standards, guidelines and other resources' section below). It is not a substitute for such standards, which should take precedence as authoritative sources and basic technical references. Applicable laws and regulations must be taken into account and compliance with them should be regarded as the minimum acceptable performance standard.

See the CDC Environmental and Social Checklist and CDC Governance and Business Integrity Checklist for questions that fund managers should consider when evaluating a forestry and plantations investments from an ESG perspective.

1.2 Scope of this Sector Profile

This Sector Profile covers the following activities:

- Management of plantation forests.
- Management of natural forests.

Business activities that fall within the scope of this Sector Profile include:

- Site development and plantation.
- Harvesting of forest material.
- Transport of harvested wood.

Where processing of wood and manufacturing of wood products (e.g. sawmilling, plywood manufacturing) is being considered, CDC Sector Profile: Manufacturing should also be consulted, as well as the World Bank Group EHS Guidelines for Board and Particle-based Products and for Sawmilling and Manufactured Wood Products. For information on Commercial Agriculture, refer to CDC Sector Profile: Agriculture and Aquaculture Sector.

2. KEY ENVIRONMENTAL AND SOCIAL ASPECTS

This section outlines some of the specific risks and impacts that emerge from poor ESG practices. Weak management of these aspects may lead to reputational damage, have an impact on a company's capacity to raise funding (debt and equity) and, more broadly, negatively impact a company's financial performance. Conversely, sound ESG practices are likely to improve a company's reputation, access to investors and overall performance.

2.1 Management commitment, capacity and track record (CCTR)

Companies need management's commitment and sufficient capacity to ensure that the necessary resources are available for sound E&S management. Refer to CDC Guidance: Assessing Companies' Commitment, Capacity and Track Record.

2.2 Environmental and social management system (ESMS)

Companies should develop and implement an ESMS commensurate with the level of risks and impacts associated with its activities. For further advice refer to CDC E&S Briefing Note: Environmental and Social Management Systems (company-level).

2.3 Labour and working conditions

Note – Occupational health and safety is covered separately below.

Risks for the business	• Companies may face prosecution or fines (or having their licences removed) if they fail to comply with labour laws and regulations. • Financial, reputational and legal risks, and lower production efficiency, product quality and profitability, can result from poor morale, industrial action, high staff turnover and deterioration of employees' health (e.g. due to excessive working hours). • Higher costs can be incurred to recruit and train new workers if turnover is high due to poor labour and working conditions. • Reliance on seasonal labour and part-time employment creates additional costs, recruitment and training challenges, all of which can adversely affect product quality, as well as increase scrutiny from regulators and others in the value chain.
Opportunities for the business	• Costs can be reduced and productivity enhanced by upholding good labour and working conditions. Business may also find it easier to attract and retain competent workers. • Market access can be enhanced if the business achieves certain standards and/or related certifications covering labour and working conditions (e.g. SA8000). • Developing long-term relationships with contractors can help to ensure effective and efficient felling and log processing. • Where the labour force is recruited from within local communities, good practice in labour and hiring practices can also enhance community protection of the forest resources.

Wages and working hours: The sector is a major employer of low-paid and often unskilled labour, including temporary or seasonal labour, migrant workers, and workers who provide services via supply chains (e.g. outgrower programmes or harvesting contractors). Furthermore, working hours are typically long. Workers should be paid at least the minimum statutory wage for the sector and working hours should be in accordance with applicable laws and sector regulations/agreements. Companies should not use third party contractors as a means of exceeding working hour regulations or avoiding minimum wage payments.

Good practice in this area can help to manage costs relating to recruitment, training and talent retention and maintain or enhance customer service and build the forestry and plantation industry's reputation and overall business success.

Child labour and bonded/forced labour: These forms of labour are used in some forestry production systems, particularly primary suppliers (e.g. smallholders). Non-compliance with ILO Core Labour Conventions on Child Labour/Minimum Age and Forced Labour is not acceptable under international standards. Measures to eradicate these forms of labour should be implemented as a matter of priority.

Equal opportunities and non-discrimination: Discrimination can also be prevalent in the sector, particularly towards women (in relation to terms and conditions of employment and wages) as well as seasonal and temporary and migrant labour. Companies should address discrimination by identifying key issues (through consultation with affected workers) and putting in place policies that deter discrimination. Doing so can help to manage recruitment and training costs, improve worker retention, the working environment and maintain or enhance productivity.

Accommodation: Jobs in this sector may involve workers spending extended periods away from their homes, family and community. Where a company undertakes to provide (either directly or through contractors) worker accommodation, the provision should include basic services (e.g. potable water, toilets, privacy and security) and take into account the principles of non-discrimination and equal opportunity. The company should provide accommodation in accordance with the principles included in IFC Performance Standard 2: Labor and Working Conditions and IFC and EBRD Guidance Note on Workers' Accommodation. Good practice in this area can help maintain a stable and productive workforce and avoid conflicts with nearby communities (if any).

Supply chains: The sector can be heavily reliant on complex supply chains and working practices (e.g. part-time and seasonal harvest work or land clearing, contract and migrant labour). Companies should always strive to reduce risks of poor labour and employment practices in their supply chain over time. This can be accomplished by shifting to suppliers with better practices or by engaging with poorer quality suppliers to enhance employment and labour practices. It may require collaboration with other producers, regulators and non-governmental organisations (NGOs)

For further general guidance on good practice relating to labour standards and working conditions, in line with the International Labour Organization's (ILO's) Core Conventions, refer to CDC E&S Briefing Note: Labour Standards, IFC Performance Standard 2: Labor and Working Conditions and IFC Good Practice Note on Non-Discrimination and Equal Opportunity.

2.4 Occupational health and safety (OHS)

Risks for the business	• Companies may face prosecution or fines if workers or contractors are injured or killed. • Loss of production or loss of clients and business may result from a poor record regarding injuries to workers and fatalities. • Legal costs and insurance claims, as well as higher insurance premiums. • Low workforce morale and erosion of trust can lead to higher staff turnover, lower productivity, additional training and recruiting costs, and reputational damage.
Opportunities for the business	• Proactively involving workers and contractors in key decisions can help to identify and maintain good OHS practices, and improve their acceptance if new or significantly different to previous practices. • Increased harvesting efficiencies and better quality materials achieved through relationships with contractors that promote safe working conditions and practices. • Market access can be enhanced if a company achieves certain standards and/or certifications that cover OHS matters (e.g. training certification for pesticide or wood preservative applicators).

OHS is an important consideration for any business, regardless of sector, and all companies must have in place appropriate OHS and emergency preparedness and response management systems, commensurate with level of risks.

If contractors are involved in operation and maintenance activities, companies should implement measures to ensure contractors work in accordance with applicable regulations and GIIP. Such measures should be covered in companies' OHS and emergency preparedness and response management systems.

Specific OHS risks in the forestry and plantations sector can include those in connection with:

- Physical hazards (e.g. use of cutting equipment, heavy machinery and vehicles, manual handling, strain injuries from heavy lifting, hazards related to working at height during harvesting, including suspended harnesses, falling logs and cable use for log extraction).
- Road safety risks (e.g. cause by timber transportation).
- Risk related to the presence of wildlife (e.g. animal attacks).
- Chemical hazards (e.g. pesticide and herbicide handling, application of wood preservatives).
- Risks related to outdoor working for long hours (e.g. risks associated with prolonged exposure to high and low temperatures and/or sunlight, as well as lone and isolated work).
- Risk related to accommodation (refer to CDC E&S Briefing Note: Labour Standards).
- Exposure to noise (land clearing, chain saws during harvesting, field related vehicle traffic).
- Fire (by natural or human causes) is a significant threat to the sector. Fire-fighting or conducting controlled burning by forest plantation staff may expose workers to burns, smoke inhalation, injury or death.
- Travel to, and work in, remote sites. Where forestry and plantation operations are located in remote sites lacking basic infrastructure and requiring temporary accommodation, excessive travel sometimes by dangerous means may be required.

For further sector-specific guidance refer to the World Bank Group EHS Guidelines for Forest Harvesting Operations.

For further general guidance on GIIP relating to OHS, refer to CDC E&S Briefing Note: Occupational Health and Safety, IFC Performance Standard 2: Labor and Working Conditions, World Bank Group General EHS Guidelines and CDC Good Practice: Preventing Fatalities and Serious Accidents.

2.5 Resource efficiency and pollution prevention

Risks for the business	• Fines for non-compliance with pollution prevention legal requirements, especially with respect to solid waste and hazardous materials (e.g. pesticides) management and disposal. • Excessive expenditure on water supply (including nursery irrigation). • Lower productivity as a result of poor plantation development or natural forestry operations (including soil compaction, soil erosion and loss of organic matter). • Lower productivity or product loss due to climate change or increased extreme weather risk (e.g. flood, drought, and heat waves), the spread of plant diseases, fire risk and increased competition for water resources. • Regulatory compliance costs if new or more stringent regulations are introduced around commercial forestry and its relation to Reducing Emissions from Deforestation and Forest Degradation (REDD+). • Higher operational costs related to water and soil scarcity due to overuse or inadequate land and water use planning.
Opportunities for the business	• Enhanced market access, profit margins and reputational benefits from adopting good environmental and social management practice (including carbon management) and achieving sustainability certification. • Improved forest management (such as better harvesting, protection and better growing practices) can improve resilience, production and yields as well as contribute to emissions reductions. • Additional revenue streams and reduced costs from sale and/or use of waste wood as biomass fuel. • Avoidance of higher operational costs and long-term risks and impacts by using resources sustainably (e.g. water and soil and protective harvesting).

Energy efficiency: Certain activities (e.g. production systems that use large volumes of pumped water) are energy intensive. It is important to ensure that the energy supply is sufficient and regular and that back-up systems are in place in order to enable continuous production. Energy and resource-efficient technologies (e.g. drip irrigation or renewable power sources such as biogas) can increase production efficiency and significantly reduce production costs.

Water management: Most forestry operations rely on access to rain water but may need extra supplies at certain stages of the plantation cycle (e.g. for seedling nurseries). Forestry operations may compete with others for access to water, including local residents and industrial facilities. Companies must ensure that they have agreements, legal rights and/or permits to the water they need, at all times of year and that they have water quality testing systems in place. Where water deficit risks are evident, particular attention should be paid to stakeholder engagement so as to gauge community concerns about water use in the catchment early and effectively. The Water Risk Filter, developed by DEG (German Investment and Development Corporation) and the

environmental NGO World Wide Fund for Nature (WWF), can help companies (and investors) to identify potential water-related risks by commodity or watershed.

Chemical use: Many plantations and forestry operations rely on agrochemicals such as pesticides, fertilisers and herbicides mainly during the early stages of plantation development. Some chemicals can cause immediate and/or long-term environmental and health impacts if not applied correctly. These impacts may affect workers or nearby communities (via water contamination, residual build-up, or re-use of chemical containers by third parties). While there have been improvements in the specificity of agrochemicals and some progress in reducing toxicity/risk to non-target species (including humans), there remains a range of highly toxic agrochemicals — including those classified by the World Health Organisation (WHO) as being 'extremely hazardous' (Class Ia) or 'highly hazardous' (Class Ib) — that require particular attention. Companies should put in place proper procedures for procuring, storing and applying all chemicals, as well as for the disposal of containers. Integrated Pest Management (IPM) is an important way of reducing agrochemical use and costs, protecting the health and safety of workers and reducing environmental impacts. IPM should form part of the management approach to all primary production investments.

For further sector-specific guidance, refer to the World Bank Group EHS Guidelines for Forest Harvesting Operations.

For further general guidance on GIIP relating to resource efficiency and pollution prevention, refer to CDC E&S Briefing Note: Resource Efficiency and Pollution Prevention, IFC Performance Standard 3: Resource Efficiency and Pollution Prevention and World Bank Group General EHS Guidelines.

2.6 Community health, safety and security

Risks for the business	• Social licence to operate can be put at risk if social impacts and/or community relations are not well managed. • Financial and legal risks and/or compensation claims from surrounding communities exposed to immediate and long-term health and safety risks arising from changes to water availability or quality, increased vehicle movements and safety concerns as well as agrochemical related health concerns. • Reputational damage and significant management costs to address social opposition and criticism if conflicts over land and water use and rights arise.
Opportunities for the business	• Building good relationships with local communities can help reduce health, safety and security risks, and also help secure the forest reserve (e.g. from fire risk).

Apart from the impacts arising from pollution prevention and resource use, community health, safety and security risks and impacts associated with this sector primarily relate to:

Emergency preparedness and response: Companies must implement emergency preparedness and response systems to respond to accident and emergency situations associated with the company's activities. In the case of this sector, forestry companies should implement measures to minimise fire risks. Companies should assist and collaborate with Affected Communities, local government agencies, and other relevant parties, in their preparations to respond effectively to emergency situations.

Use of security personnel: Forestry and plantations operations sometimes employ security personnel to prevent unauthorized access or for safety reasons (e.g. during logging). Companies should be guided by the principles of proportionality and good international practice in relation to hiring, rules of conduct, training, equipping and monitoring of such workers, as well as by applicable law. These principles include practices consistent with the United Nations (UN) Code of Conduct for Law Enforcement Officials, UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials and the Voluntary Principles on Security and Human Rights.

Traffic: There is often a significant level of traffic associated with forest harvesting operations, which can put local populations at increased risk of traffic-related accidents. Companies should ensure that they adopt good traffic control practices (e.g. controls on harvesting times and transport through communities and villages).

For further sector-specific guidance, refer to World Bank Group Industry Sector EHS Guidelines for Forest Harvesting Operations.

For further general guidance on GIIP relating to community health, safety and security, refer to [CDC E&S Briefing Note: Community Health, Safety and Security](#) and [IFC Performance Standard 4: Community Health, Safety and Security](#).

2.7 Land access and acquisition

Risks for the business	• Poor community relations can undermine a company's licence to operate. • Long time frames and significant costs can be incurred when securing land, access and water rights. This is particularly relevant if resettlement of people and/or significant economic displacement of communities (including situations where communities collect non-timber forest products such as mushrooms, berries and medicinal plants) is/are required. • Reputational damage and significant management costs can arise in relation to social opposition and criticism due to inadequate land purchase /lease/acquisition practices (e.g. lack of transparency during negotiations). Risk of a business being perceived as 'land grabbing' and risks of retaliatory damage (including fire) to forest and plantation assets.
Opportunities for the business	• Developing and maintaining good relations with local communities will help to manage their expectations and to identify concerns (e.g. access to non-timber forestry products (NTPF), water and other ecosystem services). • Building relationships with local communities and managing land access and use processes well may generate benefits such as increased production throughput from outgrower schemes or a better/bigger potential labour pool.

Land rights: Plantations occupy large areas of land and can have significant impacts on water availability. It is critical that a company has or is in a position to negotiate the necessary legal rights to access and use the land and related resources (e.g. water for irrigation), and that consideration is given to long-term use and access (given the rotation length for plantations). In emerging markets, land tenure and use rights can be unclear and complex due to a lack of regulation, customary/traditional land tenure and/or the presence of communities that occupy and use land but without a formal legal right or claim. Companies should consider appointing experts to assist them with the land acquisition/purchase process in order to avoid local opposition in situations where land tenure is uncertain.

Economic and physical displacement: In some cases, people living on or near forestry and plantations operations may be subject to economic displacement (due to the loss of access to livelihoods or natural resources NTFP and/or involuntary physical displacement (i.e. resettlement). If this cannot be avoided a company should seek to properly identify and compensate Affected Communities and to help them improve or restore their standards of living or livelihoods.

Community relations: It is important for companies to develop and maintain good relations with local communities. Sufficient time and resources should be made available to consult with Affected Communities in a culturally appropriate manner and engagement should be seen as an ongoing process. A grievance mechanism should be set up. Efforts should be made to

accommodate community needs and reasonable requests. However, it is important to manage local communities' expectations, as well as to take into account any precedents that may have been set.

Support for local facilities and infrastructure: In some cases, companies may be asked to support community development or provision of public services (e.g. construction or running of schools, clinics or other local services). Companies should not provide these facilities or services in order to try to trade off impacts that could have been avoided, reduced or mitigated. Ultimately, the goal should be to ensure that community impacts are addressed in the first instance and to deliver additional mutually beneficial support thereafter.

Indigenous Peoples: In rare circumstances, forestry and plantations operations may affect Indigenous Peoples. In such situations specialist external advice should be sought. Consultation should aim to achieve Free Prior Informed Consent (FPIC) for the proposed forestry and plantation operations.

If a company is considering acquiring an existing plantation or forestry operation that does not require expansion or acquisition of additional land, the risks above are likely to be less significant, but still need to be managed by the company since there may be legacy issues that need to be resolved.

For further general guidance on GIIP relating to land access and acquisition, refer to CDC E&S Briefing Note: Land Acquisition and Involuntary Resettlement and IFC Performance Standard 5: Land Acquisition and Involuntary Resettlement. If Indigenous Peoples may be affected, refer to IFC Performance Standard 7: Indigenous Peoples.

2.8 Biodiversity conservation and ecosystem services

Risks for the business	• License to operate can be put at risk from negative impacts to local biodiversity including ecosystem services used by local communities. • Reputational damage due to production practices associated with investments that directly or indirectly (e.g. via supply chains) impact biodiversity (e.g. impacts on natural forests or river habitats, or increased access to previously remote areas that increases third party bush meat harvesting or other activities). • Reputational and business interruption due to adverse interaction with local communities, particularly if ecosystem services (e.g. water, timber, forest products and soil) and/or sacred sites are damaged. • Reduced access to international markets if production or supply chains are implicated in adverse impacts on biodiversity. • Delays and additional costs if activities affect protected areas (or endangered species and/or Critical Habitats).Providing the resources for mitigating the impact of, or compensating for, these activities can be complex and expensive.

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Opportunities for the business	- Increased production and/or productivity through better management (e.g. harvesting practices, access and rotation planning) and sustainable use of natural resources (especially water and soil). - Enhanced market access, stronger relations with buyers, increased profits and reputational benefits where proactive management of biodiversity, natural resources and climate change is evident. - Certification under a credible voluntary standard can provide assurance and increase access to international markets. - In some cases, forestry companies may develop and implement programmes that benefit local communities, such as allowing them to access and/or use company land under certain circumstances for some uses (e.g. grazing, inter-cropping schemes). This can generate better community relations and reduce risk of damage to assets (through arson, for example).

As pressure on land from forestry, agriculture and urban development increase, so do threats to biodiversity. Regulators, buyers, investors and NGOs now have significantly greater interest in the biodiversity impacts that forestry and plantations operations generate.

As with other E&S risks and impacts, companies should always adopt a mitigation hierarchy to anticipate and avoid or where avoidance is not possible, minimise and, where residual impacts remain, compensate or offset for risks and impacts to the environment. This hierarchy of conservation measures aims to direct forestry operations to areas with the least biodiversity value. Typically, impacts on areas with high biodiversity values (e.g. protected areas, areas containing endangered species or high conservation value (HCV) areas) should not be included in felling or plantation plans and should be protected by the company (generally these measures would be defined in the forestry or plantation management plan, or potentially also in a Biodiversity Management Plan. Protection of such areas is a requirement for voluntary sustainability standards such as Forest Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC).

Habitat degradation and destruction and impacts on ecosystem services: Habitat alteration is one of the most significant potential threats to biodiversity associated with forestry operations. This can also affect the provision of ecosystem services including: (i) soil quality; (ii) the provision of freshwater to local communities; (iii) protection from natural risks (i.e. landslides, flash flooding); and (iv) sacred sites and areas of importance for recreation and aesthetic enjoyment (including landscape values).
Plantation developments (especially for eucalyptus species) have generated particular concerns in relation to water demand and associated impacts on local communities and other water users. When considering plantation location, companies should specifically consider the water demand over the life of the plantation, as well as cumulative demand from other users and potentially the impact of climate change (including increases and decreases in water availability and effects of rising temperatures on water availability).

If significant impacts on biodiversity and/or ecosystem services are likely, companies should specifically assess these potential impacts and implement (biodiversity) management systems and plans to manage biodiversity and ecosystem service risks in accordance with the mitigation hierarchy. Many forestry and plantation certification systems have specific guidance on managing

impacts to biodiversity (including the need to protect and manage HCV aspects), which should guide and inform forestry and plantation operations.

Vertebrate control: In some emerging market forest operations, certain vertebrate species (e.g. squirrels, wild baboons) damage commercially viable plantations through stripping bark, resulting in the deformation or even death of trees. Poisoning should be avoided due to broader risks to ecosystems, and alternative control practices should be investigated.

Worker's safety and wildlife preservation: In some geographies, workers may be exposed to risks from animals, insects and plants (e.g. snake bites, attacks by predators). Companies should implement measures to ensure worker safety while preserving wildlife. This will typically include training on how to avoid dangerous species and on how to react to some circumstances (e.g. if predators are seen near workers).

Alien species: Forestry can also result in the spread of alien species. Where such species have invasive tendencies, significant controls and a comprehensive environmental management system must be put in place. Precautions should be taken to prevent the spread of existing exotic species as a result of forestry operations.

For further sector-specific guidance refer to the World Bank Group EHS Guidelines for Forest Harvesting Operations.

For further general guidance on GIIP relating to biodiversity and ecosystem services, refer to CDC E&S Briefing Note: Biodiversity and Ecosystems Services and IFC Performance Standard 6: Biodiversity and Ecosystems Services.

2.9 Climate change

Risks for the business	• Changes in temperature range and increased incidence of extreme weather events may change productivity or viability of plantations. Higher temperatures lead to increased incidence of plant/tree diseases. • Potential increase in cost of forestry products resulting from increased competition for commodities and other products (e.g. wooden products) and diminishing resources (e.g. water scarcity). • Loss of clients or the inability to access markets due to concerns over products' environmental footprint and/or issues related to product traceability (e.g. some consumers may be concerned about wood products resulting from illegal logging).
Opportunities for the business	• Improved crop resilience, production and yields through good management of soil and water resources, and forest/plantation management systems that take climate risk into account (e.g. breeding to improve resilience). • Additional revenue through carbon markets for agricultural-based emission reduction and carbon sequestration.

Given the longevity of forest/plantation production cycles, risks from climate change create particular investment and asset management challenges.

Many regions are experiencing significant climatic change and extreme weather events (e.g. droughts, flooding and extreme heat). In forestry operations in such areas, appropriate land and soil management techniques need to be used (e.g. forestry systems that increase resilience to climate related risks).

Careful consideration should be given to the strains of crops grown and the systems used in order to manage risks to quality and yields. For example, in areas that are becoming more prone to drought, drought resistant strains should be adopted, and drip irrigation or similar systems to conserve and use water as efficiently as possible.

The use of genetically modified (GM) crops is likely to be increasingly evident as a response to climate related risks and companies need to balance the opportunities afforded by GM traits (e.g. drought resistance) against the environmental, reputational and other risks (e.g. access to some markets) associated with GM.

For further general guidance on GIIP relating to climate change, refer to the US Environmental Protection Agency's Climate Impacts on Forests.

2.10 Supply chains

Risks for the business	• Reputational and business continuity risks linked to working with unsustainable supply chains and/or providers that do not meet basic international standards and conventions (e.g. international conventions on child labour and forced labour) or sustainability standards.
Opportunities for the business	• Collaborate with and where possible, train suppliers to improve E&S management. This can lead to improvements in resource use sustainability (e.g. water and soil), higher productivity and product quality, stronger and better relationships with suppliers and more broadly, a more reliable, sustainable, resilient and competitive supply chain. • Enhanced market access where approved supplier programs include E&S requirements and/or where customers take into account sustainability factors.

As covered above in this Sector Profile, the adequacy and sustainability of supply chains can be a significant business success factor for many forestry and plantations companies. Challenging issues at the supplier level can include:

- Labour and working conditions for harvesting contractors or small-scale operators (including the use of child or forced labour). See Labour and working conditions section above.
- Health and safety risks to third party contractors and suppliers who may have limited experience of forestry or harvesting operations and poor quality or inappropriate harvesting or transport equipment.
- Illegal harvesting of protected forest species, immature stands of natural forest or harvesting in protected areas.
- Inappropriate or illegal land use or acquisition.
- Impacts on water resources and soil erosion due to poor forest management (e.g. skid trails, access roads and harvesting practices).
- Indirect impact of improved access to forest resources due to actions of suppliers, leading to increased exploitation of natural forests, or fire risk.

Where companies can reasonably exercise control, their ESMS and supply chain policies should seek to identify and manage such risks and impacts. Where control of risks is not possible (insufficient influence via supply chain leverage or relations), companies should at least gain an understanding of the scale, type and significance of the E&S issues involved. This will allow them to assess the risks associated with continuing the relationship with the supplier. Companies may wish to explore alternatives if the risks are considered significant.

For further general guidance on GIIP relating to supply chains, refer to CDC E&S Briefing Note: Supply Chains, IFC Performance Standards, World Bank Group General EHS Guidelines and IFC Good Practice Handbook: Assessing and Managing Environmental and Social Risks in an Agro-Commodity Supply Chain.

3. BUSINESS INTEGRITY CONSIDERATIONS

Fund managers should ascertain and continue to ensure that companies (regardless of sector) comply with the fund's business integrity requirements. For further information, see Governance and Business Integrity.

3.1 Business integrity issues specific to the fisheries sector:

The main corruption risks in the forestry sector revolve around:

- Property title and tenure permits to operate.
- Access to infrastructure and resources such as water.
- Export and import of wood/wood-products.

Companies should have systems in place for managing and overseeing interactions with local community leaders and with government officials.

4. ADVICE FOR FUND MANAGERS

See also CDC Environmental and Social Checklist and CDC Governance and Business Integrity Checklist and ESG in the Investment Cycle.

4.1 Sector risk overview

The forestry and plantations sector intrinsically involves potentially complex, significant and diverse ESG risks and impacts that are likely to have material implications for long-term shareholder value. Therefore, ESG matters will normally be a significant element of due diligence, investment structuring and ongoing ownership and monitoring. Fund managers should give serious consideration to working with independent ESG experts to support them in transactions in this sector.

Additionally, fund managers should bear in mind that the sector is under increasing scrutiny from regulators, buyers/supply chains, consumers and NGOs in relation to ESG issues.

4.2 Scoping considerations

In addition to the aspects highlighted above linked to the company's assets, activities and workers, fund managers should take into account the following during the life of the investment, from screening to exit:

- *Associated facilities* (e.g. access roads, sawmills, transportation of wood, primary curing of wood).
- *Contractors* whose operations present significant E&S issues which could have an impact on the business, including contract harvest labour (especially if migrant) or outgrowers as a source of production.
- *Supply chains* (e.g. small-scale logging operations and supplying sawmills), where these present significant E&S risks (e.g. child labour risks or risks of impacting protected species or areas). For further guidance on supply chains, refer to CDC E&S Briefing Note: Supply Chains.

4.3 Situations requiring extra attention

Extra attention, longer timescales and enhanced ESG due diligence and monitoring may be required in more complex situations. This will typically involve engaging consultants (see CDC Guidance: Working with Consultants) to conduct a gap analysis against the applicable local and international E&S standards (e.g. IFC Performance Standards and World Bank Group EHS Guidelines).

Examples of activities or situations in this sector requiring extra attention include:

- New Projects/Expansions such as Greenfield construction or major expansion Projects (refer to CDC Project Design and Construction Guide).
- Companies/activities involving potential adverse impacts on Indigenous Peoples or other vulnerable groups, including restricted access to land, impacts on customary rights or, more broadly, impacts on livelihoods.
- Situations where conversion of natural habitats or proximity to protected areas, High Conservation Value or Critical Habitats are evident or likely. Additionally where development may impact the area's ability to continue to provide ecosystem services (e.g. water and timber to local communities).
- Where there are large numbers of forestry workers (including migrant or temporary labour) or in geographies where there is a record of poor labour practices (e.g. child or forced labour in production or supply chains).
- Where companies will rely on significant areas of non-native species as part of the company operations.
- Where production for international markets is assumed (and certification and supply chain assurance may be required).
- Transactions / geographies with high business integrity risks.
- Any other activities or Projects involving involuntary economic and/or physical displacement of communities or significant adverse impacts on biodiversity or ecosystem services, Indigenous Peoples, cultural heritage or local communities.

5. STANDARDS, GUIDELINES AND OTHER RESOURCES

For authoritative guidance, fund managers should consult the applicable IFC Performance Standards and World Bank Group EHS Guidelines.

5.1 Applicable IFC Performance Standards

The IFC Performance Standards most commonly applicable to investments in this sector are:

- IFC 2012 Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts.
- IFC 2012 Performance Standard 2: Labor and Working Conditions.
- IFC 2012 Performance Standard 3: Resource Efficiency and Pollution Prevention.
- IFC 2012 Performance Standard 4: Community Health, Safety and Security.
- IFC 2012 Performance Standard 5: Land Acquisition and Involuntary Resettlement.
- IFC 2012 Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

In addition, other IFC Performance Standards may be applicable depending on the specific characteristics and locations of a company's operations. The screening stage of the fund manager's ESG due diligence should always include a routine check for the potential presence of significant impacts covered by IFC Performance Standards.

5.2 Applicable World Bank Group EHS Guidelines

The most relevant World Bank Group EHS Guidelines in this sector are:

- World Bank Group General EHS Guidelines.
- World Bank Group EHS Guidelines for Forest Harvesting Operations.

5.3 Additional resources, standards and guidelines

Additional resources that may be valuable are:

- New Generation Plantations.
- Centre for International Forest Research (CIFOR).
- Forest Trends.
- Food and Agriculture Organization of the United Nation (FAO) Model Code of Forest Harvesting Practice.
- International Labour Organization Safety and Health in Forest Work.
- Stockholm Convention on Persistent Organic Pollutants (POPS).
- WWF/World Bank Forest Certification Assessment Guide.
- WWF/DEG Water Risk Filter.
- Global Forest and Trade Network (GFTN).
- Natural Capital Declaration.
- Transparency International.

Certification bodies and sustainable forestry standards

There are now several credible voluntary standards that have been developed by industry, companies, NGOs and others to promote better production and management practices in the forestry sector. The adoption of these standards can generate cost savings and production efficiencies (through better use of resources), access to a broader range of markets and buyers, increased staff efficiency and productivity and overall improved risk management. There are typically costs associated with the development and implementation of voluntary standards and certification.

Some of the standards that have particular market share or influence are listed below. Inclusion here does not indicate endorsement of standards and fund managers should make their own decision on the appropriateness and credibility of standards that companies might want to implement.

- [Forest Stewardship Council](#) (FSC).
- [Program for Endorsement of Forest Certification](#) (PEFC).
- [Sustainable Forestry Initiative](#) (SFI).