JICA Environmental Checklist 18: Forestry Points to Note:

- 1. Answers should not be limited to only Yes/No, but the rationale of the answer and mitigation measures should also be described in the "Confirmation of Environmental Considerations" column.

 2. If you have any questions about terminology, etc., please refer to "Japan International Cooperation Agency Guidelines For Environmental and Social Considerations (January 2022)" (the JICA
- 2. If you have any questions about terminology, etc., please refer to "Japan International Cooperation Agency Guidelines For Environmental and Social Considerations (January 2022)" (the J Guidelines) and "Answers to Frequently Asked Questions about the Japan International Cooperation Agency Guidelines For Environmental and Social Considerations (January 2022)" (FAQ).

Category	Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
	(1) Environmental Assessment and Environmental Permits	(b) Are the EIA reports written in the official or widely used language of the host country?(c) Have EIA reports been approved by authorities of the host country	(a) (b) (c) (d) (e) (f) (g)	(a) (b) (c) (d) (e) (f) (g)
1. Permits and Consultations	(2) Explanation	stakeholders about the content and impact of the project, and gain their	(a) (b) (c) (d)	(a) (b) (c) (d)
	(3) Examination	considered?	(a) (b) (c)	(a) (b) (c)

Category	Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
2. Pollution Control	(1) Air Quality	(a) Do air pollutants, such as dust, soot and dust, sulfur oxides (SOx), nitrogen oxides (NOx), and organic chemical substances emitted from various sources, such as logging operations, forest products manufacturing processes, and incinerators comply with the emission standards of the host country, etc.? (b) Do air pollutants emitted from the project cause areas that do not comply with the ambient air quality standards of the host country, etc.? (c) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?	(a) (b) (c)	(a) (b) (c)
	(2) Water Quality	 (a) Does the use of chemicals, such as fertilizers and agrochemicals cause water pollution? (b) Where facilities, such as forest products manufacturing facilities are installed, do effluents from the facilities comply with the effluent standards of the host country, etc.? (c) Does the quality of sanitary wastewater and stormwater comply with the effluent standards of the host country, etc.? (d) Do effluents from the project cause areas that do not comply with the ambient water quality standards of the host country, etc.? (e) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts? 	(e)	(a) (b) (c) (d) (e)
	(3) Wastes	(a) Are wastes properly treated and disposed of in accordance with the laws and regulations of the host country? (b) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?	(a) (b)	(a) (b)
		groundwater by use of chemicals, such as agrochemicals?	(a) (b) (c) (d)	(a) (b) (c) (d)
3. Natural Environment	(1) Protected Areas		(a) (b) (c)	(a) (b) (c)

Category	Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
3. Natural Environment	(2) Biodiversity	(a) Does the project site encompass primary forests, natural forests in tropical areas, habitats with important ecological value (coral reefs, mangrove wetlands, tidal flats, etc.)? (b) Does the project site encompass habitats of rare species that require protection under domestic legislation, international treaties, etc.? (c) Are there any concerns about the significant impact on biodiversity by the project, with significant conversion or significant degradation of critical habitats or critical forests? If yes, are appropriate measures taken to address the impact on biodiversity? (d) Do changes in solar radiation, temperature and humidity due to a large-scale timber harvesting affect the surrounding vegetation? (e) Does a large-scale timber harvesting result in loss of breeding and feeding grounds for wildlife? (f) In the case of reforestation projects, do the plantations of monospecies or exotic species adversely affect surrounding vegetation and wildlife habitats? Do such plantations cause outbreaks of pests? (If such impacts are anticipated, adequate mitigation measures should also be described in the "Confirmation of Environmental Considerations" column.) (g) Is the illegal logging of the forest avoided, or is an acquisition of the forest certification by the project proponent being carried out? (h) If there are any other concerns about significant impacts on biodiversity, are measures taken to reduce the impacts on biodiversity? (i) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?	(a) (b) (c) (d) (e) (f) (g) (h) (i)	(a) (b) (c) (d) (e) (f) (g) (h) (i)
	(3) Hydrology	 (a) Do the changes in the amount of rainwater runoff and runoff characteristics due to a large-scale timber harvesting and access road construction cause impacts on the hydrology of the surrounding areas? (b) Does the deforestation lose water recharge function and affect the entire forest-based watershed? (c) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts? 	(a) (b) (c)	(a) (b) (c)
	(4) Topography and Geology	(a) Does the loss of forest stability due to timber harvesting cause slope failures or landslides? (b) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?	(a) (b)	(a) (b)
	(5) Management of Abandoned Sites	(a) Are adequate restoration and revegetation plans considered for the harvested areas? In particular, are adequate measures taken to prevent soil runoff from the harvested areas?(b) Is a sustainable management system for the harvested areas established?(c) Are adequate financial provisions secured to manage the harvested areas?	(a) (b) (c)	(a) (b) (c)

Category	Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
4. Social Environment	(1) Resettlement and Land Acquisition	 (a) Is land acquisition with involuntary resettlement caused by project implementation? If yes, please describe the scale of land acquisition and resettlement. (b) Are efforts made to minimize the impacts caused by the resettlement? Are there any other land acquisition or loss of livelihoods? (c) Is adequate explanation on compensation and livelihood restoration program given to affected people prior to resettlement? (d) Is the resettlement plan, including compensation with full replacement costs, restoration of livelihoods and living standards, developed based on socioeconomic studies on resettlement? (e) Are the compensations paid prior to the resettlement? (f) Are the compensation policies prepared in document? (g) Does the resettlement plan pay particular attention to vulnerable social groups, such as women, children, elderly peoples, people in poverty, persons with disabilities, refugees, internally displaced persons, and minorities? (h) Are the compensation to be agreed are explained to the project affected persons in writing, and are agreements with the affected people obtained prior to resettlement? (i) Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan? (j) Are any plans developed to monitor the impacts of resettlement? (k) Is the grievance redress mechanism established? 	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)
	(2) Living and Livelihood	 (a) Does the project adversely affect the living conditions of the inhabitants? Are adequate measures considered to reduce the impacts, if necessary? (b) Is particular attention paid to the inhabitants whose livelihoods are based on primary industries, such as farming, raising livestock, or hunting and gathering in the forests? (c) Are adequate measures taken to prevent illegal entry into the forestry resource areas from the outside through newly constructed access roads? (d) Is there a possibility that the forest right of common is obstructed? (e) Does the project have a negative impact on ecosystem services (provisioning services and regulating services) and affect health and safety of the community (especially indigenous peoples who depend on the services)? (f) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts? 	(a) (b) (c) (d) (e) (f)	(a) (b) (c) (d) (e) (f)
	(3) Vulnerable Social Groups	(a) Is appropriate consideration given to vulnerable social groups, such as women, children, elderly peoples, people in poverty, persons with disabilities, refugees, internally displaced persons, and minorities? (b) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?	(a) (b)	(a) (b)

Category	Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
	(4) Heritage	(a) Does the project damage any archeological, historical, cultural, and religious heritage? Are adequate measures considered to protect these sites in accordance with the laws of the host country? (b) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?	(a) (b)	(a) (b)
	(5) Landscape	(a) Does the project adversely affect landscapes that require special considerations? (b) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?	(a) (b)	(a) (b)
	(6) Ethnic Minorities and Indigenous Peoples	(a) Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples? (b) Are all of the rights of ethnic minorities and indigenous peoples in relation to land and resources to be respected? (c) Is an indigenous peoples plan prepared and published, if necessary? (d) Do the project make efforts to obtain the Free, Prior, and Informed Consent (FPIC) of the affected indigenous peoples? (e) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?	(b) (c) (d) (e)	(a) (b) (c) (d) (e)
4. Social Environment	(7) Working Conditions	(a) Does the project comply with the host country's laws concerning working conditions, including occupational health and safety? (b) Are tangible safety considerations in place for individuals involved in the project, such as installation of safety equipment which prevents industrial accidents, and management of hazardous materials, etc.? (c) Are intangible measures being planned and implemented for individuals involved in the project, such as development of health and safety plans, and conducting safety trainings (including traffic safety and public health) for workers etc.? (d) Does the project give appropriate consideration to ensuring adequate protection - including the prohibition of child labor and forced labor - and to promoting non-discrimination and equal opportunity for directly employed workers (people who are directly employed or engaged by Project proponents to work specifically in relation to the project), as well as for indirectly employed workers (people employed or engaged through third parties (i.e. contractors during construction) to perform work related to the project)? (e) Does the project not restrict directly employed workers and indirectly employed workers from expressing their grievances? (f) Does the project not discriminate or retaliate against directly employed workers and indirectly employed workers who participate, or seek to participate, in workers' organizations or collective bargaining?	(b) (c)	(a) (b) (c) (d) (e) (f)

Category	Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
	(8) Health, Safety and Security of Local Communities	community, such as disease outbreaks (including HIV and other infectious diseases) due to the influx of workers, etc. associated with the project?	(c) (d)	(a) (b) (c) (d)
5. Others	(1) Monitoring	program for the environmental and social items that are considered to have potential impacts? (b) What are the items, methods and frequencies of the monitoring	(a) (b) (c) (d) (e)	(a) (b) (c) (d) (e)
	(1) Reference to Checklist of Other Sectors	(a)Where necessary, pertinent items described in the Agriculture checklist should also be checked.	(a)	(a)
6. Note	Using	(a) Where necessary, the impacts to transboundary or global issues should be confirmed (e.g. the project includes factors that may cause problems, such as transboundary waste treatment or global warming). (b) For projects that are expected to generate more than a certain amount of greenhouse gas emissions, is the total amount of the greenhouse gas emissions estimated before the project implementation?	(a) (b)	(a) (b)