## JICA Environmental Checklist 20: Other Infrastructure Projects 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 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. Permits and Consultations	(1) Environmental Assessment and Environmental Permits	<ul><li>(b) Are the EIA reports written in the official or widely used language of the host country?</li><li>(c) Have EIA reports been approved by authorities of the host country government? (If not yet approved, write the expected date of the approval in the "Confirmation of Environmental Considerations" column.)</li></ul>	(a) (b) (c) (d) (e) (f) (g)	(a) (b) (c) (d) (e) (f) (g)
	(2) Explanation and Consultation with Local Stakeholders	(b) Does the project provide appropriate explanations to local stakeholders about the content and impact of the project, and gain their understanding,	(a) (b) (c) (d)	(a) (b) (c) (d)
	(3) Examination of Alternatives	(a) Is the project/plan's scope of multiple alternatives adequately considered? (b) Are alternatives that are feasible in terms of technical, financial, and environmental and social aspects considered from the view point of environmental and social items and, if necessary, reducing total greenhouse gas emissions? (c) Are comparisons made with the "without project" scenario?	(a) (b) (c)	(a) (b) (c)

Category	Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
	(1) Air Quality	<ul> <li>(a) Do air pollutants, such as sulfur oxides (SOx), nitrogen oxides (NOx), and soot and dust, emitted from the proposed infrastructure facilities and ancillary facilities comply with the emission standards of the host country, etc.?</li> <li>(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.?</li> <li>(c) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?</li> </ul>	(a) (b) (c)	(a) (b) (c)
	(2) Water Quality	facilities and the ancillary facilities comply with the effluent of the host country, etc.?	(a) (b) (c) (d)	(a) (b) (c) (d)
2. Pollution Control	(3) Wastes	(a) Are wastes generated by the infrastructure facilities and ancillary facilities properly treated and disposed of in accordance with the 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)
	(4) Soil Contamination	(a) Has the soil at the project site been contaminated in the past? (b) Are adequate measures taken to prevent contamination of soil and groundwater by the effluents or leachates from the infrastructure facilities and the ancillary facilities? (c) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?	(a) (b) (c)	(a) (b) (c)
	(5) Noise and Vibration	<ul><li>(a) Do noise and vibrations from passing vehicles comply with the standards the host country, etc.?</li><li>(b) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?</li></ul>	(a) (b)	(a) (b)
		<ul><li>(a) Is there any possibility that extraction of a large volume of groundwater causes subsidence?</li><li>(b) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?</li></ul>		(a) (b)
	(7) Odor	(a) Are there any odor sources? Are any mitigation measures taken? (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)
3. Natural Environment	(1) Protected Areas	(a) Is the project site located in protected areas designated by the country's laws or international treaties/ conventions? (b) Does the project affect the protected areas? (c) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?	(a) (b) (c)	(a) (b) (c)
	(2) Biodiversity	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	(a) (b) (c) (d) (e) (f)	(a) (b) (c) (d) (e) (f)
	(3) Hydrology	(a) Do the hydrologic changes due to the project adversely affect surface water and groundwater flows? (b) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?	(a) (b)	(a) (b)
	(4) Topography and Geology		(a) (b)	(a) (b)

Category	Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
4. Social	(1) Resettlement and Land Acquisition	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	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)
Environment	(2) Living and Livelihood		(a) (b) (c)	(a) (b) (c)
	(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)
	(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)

Category	Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
4. Social Environment	(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	of ethnic minorities and indigenous peoples? (b) Are all of the rights of ethnic minorities and indigenous peoples in		(a) (b) (c) (d) (e)
	(7) Working Conditions	(a) Does the project comply with laws related to occupational health and safety of the host country? (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.?	(a) (b) (c)	(a) (b) (c)
	(8) Health, Safety and Security of Local Communities	(a) Are there any negative impacts on health/hygiene of the local community, such as disease outbreaks (including HIV and other infectious diseases) due to the influx of workers, etc. associated with the project? Are there any mitigation measures in place for the impacts? (b) Are there any negative impacts on the safety of the local community, such as deterioration of public safety, due to the influx of workers, etc. associated with the project? Are there any mitigation measures in place for the impacts? (c) When security guards are hired for the project or other personnel are deployed to ensure and maintain the security of the project area as well as the persons related to the implementation of the project during the project preparation and implementation, are any appropriate measures taken for such personnel not to use any force to provide security except for preventive and defensive purposes? (d) Does the construction have negative impacts? Are there any mitigation measures in place for the impacts?	(a) (b) (c) (d)	(a) (b) (c) (d)

Category	Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
5. Others	(1) Monitoring	<ul> <li>(a) Does the project proponent develop and implement monitoring program for the environmental and social items that are considered to have potential impacts?</li> <li>(b) What are the items, methods and frequencies of the monitoring program?</li> <li>(c) Does the project proponent establish an adequate monitoring framework (organization, personnel, equipment, and budget to sustain the monitoring framework)?</li> <li>(d) Are any regulatory requirements pertaining to the monitoring report system identified, such as the format and frequency of reporting the monitoring results from the project proponent to the regulatory authorities?</li> <li>(e) Is the grievance redress mechanism regarding environmental and social considerations established?</li> </ul>	(a) (b) (c) (d) (e)	(a) (b) (c) (d) (e)
6. Note	(1) Reference to Checklist of Other Sectors	(a) Where necessary, pertinent items described in the Roads, Railways and Bridges checklists should also be checked (e.g., projects including access roads to the infrastructure facilities). (b) For projects, such as installation of telecommunication cables, power line towers, and submarine cables, where necessary, pertinent items described in the Power Transmission and Distribution Lines checklists should also be checked.	(a) (b)	(a) (b)
	(2) Note on Using Environmental Checklist	(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)