

Environmental Checklist: 18. Fishery (1)

| Category | Environmental Item | Main Check Items | Yes: Y No: N | Confirmation of Environmental Considerations (Reasons, Mitigation Measures) |
|---------------------------|---|--|--------------------------|--|
| 1 Permits and Explanation | (1) EIA and Environmental Permits | (a) Have EIA reports been already prepared in official process? (b) Have EIA reports been approved by authorities of the host country's government? (c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied? (d) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government? | (a) (b) (c) (d) | (a) (b) (c) (d) |
| | (2) Explanation to the Local Stakeholders | (a) Have contents of the project and the potential impacts been adequately explained to the Local stakeholders based on appropriate procedures, including information disclosure? Is understanding obtained from the Local stakeholders? (b) Have the comment from the stakeholders (such as local residents) been reflected to the project design? | (a) (b) | (a) (b) |
| | (3) Examination of Alternatives | (a) Have alternative plans of the project been examined with social and environmental considerations? | (a) | (a) |
| 2 Pollution Control | (1) Water Quality | (a) Are considerations given to water pollution of the surrounding the water areas by effluents, such as fish pond effluents? Are adequate standards for the use of feeds and agents/antibiotics established? Is a framework established to increase awareness of these standards? (b) Do effluents from various sources, such as fish ponds, processing facilities, and fishing boats, and water quality of the surrounding water bodies comply with the country's effluent standards and the country's ambient water quality standards? | (a) (b) | (a) (b) |
| | (2) Wastes | (a) Are wastes properly treated and disposed of in accordance with the country's regulations (especially fish processing facilities)? | (a) | (a) |
| | (3) Noise and Vibration | (a) Do noise and vibrations comply with the country's standards (especially fish processing facilities)? | (a) | (a) |
| | (4) Odor | (a) Are there any odor sources? Are adequate odor control measures taken (especially fish processing facilities)? | (a) | (a) |
| 3 Natural Environment | (1) Protected Areas | (a) Is the project site or discharge area located in protected areas designated by the country's laws or international treaties and conventions? Is there a possibility that the project will affect the protected areas? | (a) | (a) |

Environmental Checklist: 18. Fishery (2)

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|-----------------------|----------------------------|--|--|--|
| 3 Natural Environment | (2) Ecosystem | <p>(a) Does the project site encompass primeval forests, tropical rain forests, ecologically valuable habitats (e.g., coral reefs, mangroves, or tidal flats)?</p> <p>(b) Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?</p> <p>(c) Is there a possibility that changes in localized micro-meteorological conditions, such as solar radiation, temperature, and humidity due to a large-scale timber harvesting will affect the surrounding vegetation?</p> <p>(d) Is there a possibility that the project will adversely affect aquatic organisms? If significant impacts are anticipated, are adequate protection measures taken to reduce the impacts on aquatic organisms?</p> <p>(e) Is there a possibility that the project will adversely affect vegetation and wildlife? If significant impacts are anticipated, are adequate measures taken to reduce the impacts on vegetation and wildlife?</p> <p>(f) Is there a possibility that aquatic organisms and fish will be overexploited? Are fishery practices that reduce impacts on ecosystems employed? Is there a possibility that lost or discarded fishing nets, traps and other fishing gear will adversely affect ecosystems?</p> <p>(g) Is there a possibility that the feeding associated with aquaculture activities will cause eutrophication of water bodies and result in red tide blooms? Are adequate measures for eutrophication considered?</p> <p>(h) Is there a possibility that introduction of exotic species (non-native invasive species) and migration of disease-carrying pests will disturb ecosystems? Are adequate pest control measures considered?</p> | (a) (b) (c) (d) (e) (f) (g) (h) | (a) (b) (c) (d) (e) (f) (g) (h) |
| | (3) Hydrology | (a) Is there a possibility that hydrologic changes due to installation of facilities, such as fish ponds in inland and coastal areas will adversely affect surface water and groundwater flows? | (a) | (a) |
| | (4) Topography and Geology | (a) Is there a possibility that development in coastal zones will cause a large-scale of alteration of topographic features and geologic structures, subsidence and elimination of natural beaches? | (a) | (a) |

Environmental Checklist: 18. Fishery (3)

| Category | Environmental Item | Main Check Items | Yes: Y No: N | Confirmation of Environmental Considerations (Reasons, Mitigation Measures) |
|----------------------|--|---|--|--|
| 4 Social Environment | (1) Resettlement | (a) Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement? (b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement? (c) Is the resettlement plan, including compensation with full replacement costs, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement? (d) Is the compensations going to be paid prior to the resettlement? (e) Is the compensation policies prepared in document? (f) Does the resettlement plan pay particular attention to vulnerable groups or people, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples? (g) Are agreements with the affected people obtained prior to resettlement? (h) Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan? (i) Are any plans developed to monitor the impacts of resettlement? (j) Is the grievance redress mechanism established? | (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) | (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) |
| | (2) Living and Livelihood | (a) Is there a possibility that the project will adversely affect the living conditions of inhabitants? Are adequate measures considered to reduce the impacts, if necessary? 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? (b) Are proper allotments for rights to water area use (e.g. fishing rights) made? (c) Is there a possibility that water-borne or water-related diseases (e.g., schistosomiasis, malaria, filariasis) will be introduced? Is adequate consideration given to public health education, if necessary? | (a) (b) (c) | (a) (b) (c) |
| | (3) Heritage | (a) Is there a possibility that the project will damage the local archeological, historical, cultural, and religious heritage? Are adequate measures considered to protect these sites in accordance with the country's laws? | (a) | (a) |
| | (4) Landscape | (a) Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken? | (a) | (a) |
| | (5) 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 respected? | (a) (b) | (a) (b) |

Environmental Checklist: 18. Fishery (4)

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| 4 Social Environment | (6) Working Conditions | (a) Is the project proponent not violating any laws and ordinances associated with the working conditions of the country which the project proponent should observe in the project? (b) Are tangible safety considerations in place for individuals involved in the project, such as the installation of safety equipment which prevents industrial accidents, and management of hazardous materials? (c) Are intangible measures being planned and implemented for individuals involved in the project, such as the establishment of a safety and health program, and safety training (including traffic safety and public health) for workers etc.? (d) Are appropriate measures taken to ensure that security guards involved in the project not to violate safety of other individuals involved, or local residents? | (a) (b) (c) (d) | (a) (b) (c) (d) |
| 5 Others | (1) Impacts during Construction | (a) Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)? (b) If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce impacts? (c) If construction activities adversely affect the social environment, are adequate measures considered to reduce impacts? | (a) (b) (c) | (a) (b) (c) |
| | (2) Monitoring | (a) Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts? (b) What are the items, methods and frequencies of the monitoring program? (c) Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)? (d) Are any regulatory requirements pertaining to the monitoring report system identified, such as the format and frequency of reports from the proponent to the regulatory authorities? | (a) (b) (c) (d) | (a) (b) (c) (d) |

Environmental Checklist: 18. Fishery (5)

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|----------|---|--|-----------------|--|
| 6 Note | Reference to Checklist of Other Sectors | (a) For processing and storage facilities, where necessary, pertinent items described in the Mining and Industry checklist should also be checked. (b) Where necessary, pertinent items described in the Ports and Harbors checklist should also be checked (e.g., projects including construction of ports and harbor facilities). | (a) (b) | (a) (b) |
| | Note on Using Environmental Checklist | (a) If 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, acid rain, destruction of the ozone layer, or global warming). | (a) | (a) |

- 1) Regarding the term "Country's Standards" mentioned in the above table, in the event that environmental standards in the country where the project is located diverge significantly from international standards, appropriate environmental considerations are required to be made.
In cases where local environmental regulations are yet to be established in some areas, considerations should be made based on comparisons with appropriate standards of other countries (including Japan's experience).
- 2) Environmental checklist provides general environmental items to be checked. It may be necessary to add or delete an item taking into account the characteristics of the project and the particular circumstances of the country and locality in which the project is located.