

**Environmental Checklist: 3. Oil and Gas Pipelines ( 1 )**

Category	Environmental Item	Main Check Items	Confirmation of Environmental Considerations
1 Permits and Explanation	(1) EIA and Environmental Permits	<p>Have EIA reports been officially completed?</p> <p>Have EIA reports been approved by authorities of the host country's government?</p> <p>Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied?</p> <p>In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?</p>	
	(2) Explanation to the Public	<p>Are contents of the project and the potential impacts adequately explained to the public based on appropriate procedures, including information disclosure? Is understanding obtained from the public?</p> <p>Are proper responses made to comments from the public and regulatory authorities?</p>	
2 Mitigation Measures	(1) Water Quality	Are adequate measures taken prevent spills and discharges of crude oil and hazardous materials to the surrounding water areas?	
	(2) Wastes	Are sludges containing pollutants, such as oils, greases and heavy metals generated by pipeline cleaning (pigging operations) properly treated and disposed of in accordance with the country's standards?	
	(3) Soil Contamination	Has the soil at the project site been contaminated in the past, and are adequate measures taken to prevent soil contamination by leaked materials, such as crude oil?	
	(4) Noise and Vibration	<p>Do noise and vibrations from facility operations, such as pumping operations comply with the country's standards?</p> <p>Is there a possibility that noise from facility operations, such as pumping operations will affect humans and animals (wildlife and livestock)?</p>	
3 Natural Environment	(1) Protected Areas	Is the project site 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?	

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3 Natural Environment	(2) Ecosystem	<p>Does the project site encompass primeval forests, tropical rain forests, ecologically valuable habitats (e.g., coral reefs, mangroves, or tidal flats)?</p> <p>Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?</p> <p>If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem?</p> <p>Are adequate measures taken to prevent impacts on wildlife and livestock, such as disruption of migration routes, and habitat fragmentation of wildlife and livestock?</p> <p>Is there a possibility that installation of pipelines will cause impacts, such as destruction of forest, poaching, desertification, reduction in wetland areas, disturbance of ecosystems due to introduction of exotic species (non-native inhabitants in the region) and pests? Are adequate measures for preventing such impacts considered?</p>	
	(3) Hydrology	<p>In the case of offshore pipeline projects, is there a possibility that oceanographic condition changes due to installation of structures will adversely affect oceanographic conditions, such as induced currents, waves, and tidal currents? Is the possibility of water quality degradation by the installation of structures studied? Are adequate water quality control measures taken, if necessary?</p>	
	(4) Topography and Geology	<p>In the case of onshore pipeline installation, is there a possibility that the installation of structures will cause a large-scale alteration of topographic features and geologic structures around the project site? In the case of coastal pipeline installation, is there a possibility that the installation of structures will result in elimination of beaches?</p>	

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4 Social Environment	(1) Resettlement	<p>Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement?</p> <p>Is adequate explanation on relocation and compensation given to affected persons prior to resettlement?</p> <p>Is the resettlement plan, including proper compensation, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement?</p> <p>Does the resettlement plan pay particular attention to vulnerable groups or persons, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples?</p> <p>Are agreements with the affected persons obtained prior to resettlement?</p> <p>Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan?</p> <p>Is a plan developed to monitor the impacts of resettlement?</p>	
	(2) Living and Livelihood	<p>Is there a possibility that existence of pipeline will cause impacts on traffic in the surrounding areas, and impede the movement of inhabitants?</p>	
	(3) Heritage	<p>Is there a possibility that the project will damage the local archeological, historical, cultural, and religious heritage sites? Are adequate measures considered to protect these sites in accordance with the country's laws?</p>	
	(4) Landscape	<p>Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken?</p>	
	(5) Ethnic Minorities and Indigenous Peoples	<p>Does the project comply with the country's laws for rights of ethnic minorities and indigenous peoples?</p> <p>Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples?</p>	

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Category	Environmental Item	Main Check Items	Confirmation of Environmental Considerations
5 Others	(1) Impacts during Construction	<p>Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)?</p> <p>If construction activities adversely affect the land use and livelihood of inhabitants, is adequate compensation provided to local inhabitants for losses of land and livelihoods?</p> <p>If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce impacts?</p> <p>If construction activities cause impacts on traffic in surrounding areas, and impede the movement of inhabitants, are adequate measures considered to reduce impacts?</p> <p>If construction activities adversely affect the social environment (including communicable diseases, such as HIV), are adequate measures considered to reduce impacts?</p> <p>If necessary, is health and safety education (e.g., traffic safety, public health) provided for project personnel, including workers?</p>	
	(2) Accident Prevention Measures	<p>Are adequate accident prevention plans and mitigation measures developed to cover both the soft and hard aspects of the project, such as establishment of safety rules, installation of prevention facilities and equipment, and safety education for workers? Are adequate measures for emergency response to accidental events considered?</p> <p>Are adequate accident prevention measures (e.g., installation of prevention facilities and equipment and establishment of prevention management framework) taken to prevent spills from crude oil and gas storage facilities, loading/unloading operations, transportation, and blow out during drilling?</p>	
	(3) Monitoring	<p>Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts?</p> <p>Are the items, methods and frequencies included in the monitoring program judged to be appropriate?</p> <p>Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)?</p> <p>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?</p>	
6 Note	Reference to Checklist of Other Sectors	Where necessary, pertinent items described in the Forestry Projects checklist should also be checked (e.g., projects including large areas of deforestation).	

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6 Note	Note on Using Environmental Checklist	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 ozone layer, global warming).	

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 made, if necessary.

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' 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 it is located.