SURVEY ON THE IMPLEMENTATION STATUS OF THE JAPAN BANK FOR INTERNATIONAL COOPERATION GUIDELINES FOR CONFIRMATION OF ENVIRONMENTAL AND SOCIAL CONSIDERATIONS (OVERSEAS ECONOMIC COOPERATION OPERATIONS)

Report

January 2008

Japan Bank for International Cooperation

(JBIC)

Table of Contents

1 BACKGROUND AND NEED FOR SURVEY

1.1 Background

The Japan Bank for International Cooperation (JBIC) established the following basic policies regarding confirmation of environmental and social considerations[1]:

1) JBIC confirms that project proponents are undertaking appropriate environmental and social considerations, through various measures, so as to prevent or minimize the impact on the environment and local communities which may be caused by the projects for which JBIC provides funding and not to bring about unacceptable effects, and thus contributes to the sustainable development of developing regions;

2) In its confirmation of environmental and social considerations, JBIC places importance on dialogue with the host country (including local governments), borrowers and project proponents (hereinafter collectively referred to as "borrowers and related parties") regarding environmental and social considerations, while respecting the sovereignty of the host country, and it also takes note of the importance of transparent and accountable processes, as well as the participation in those processes of stakeholders in the project concerned, including local residents and local NGOs affected by the project.

Based on these policies, JBIC clearly defined environmental and social considerations required for projects to receive JBIC's funding in its Guidelines for Confirmation of Environmental and Social Considerations that came into force from October 2003 (hereinafter referred to as "Environmental Guidelines") and performs confirmation of environmental and social considerations for the projects for which request for funding was received after the enforcement of the Environmental Guidelines.

The current Environmental Guidelines were established in response to the demands of the times with the background of growing global attention to various environmental issues, such as air, water and soil contamination and global warming, and growing awareness towards social consideration including poverty reduction as global trends. From the standpoint that confirmation of environmental and social considerations is an important aspect in the risk assessment for funding, JBIC conducts screenings and reviews of environmental and social considerations to confirm that the requirements are duly satisfied in making its funding decisions and makes efforts to ensure that appropriate environmental and social considerations are undertaken through such means as loan agreements. Following funding decisions, if necessary, JBIC monitors or take steps to encourage borrowers and related parties to undertake such considerations. In accordance with the Environmental Guidelines, JBIC verifies the implementation of environmental and social considerations on a continuous basis throughout the life cycle of a project so that appropriate and sufficient environmental and social considerations are undertaken.

---

[1] Environmental Guidelines Part 1, "1. "JBIC's Basic Policies Regarding Confirmation of Environmental and Social Considerations" p.3

1.2 Need

It is stated in the Environmental Guidelines Part 1, "8. Implementation and Review of the Guidelines," that JBIC verifies the status of the implementation of the Guidelines, and, based on its findings, "conducts a comprehensive review of the Guidelines within five (5) years of their enforcement. Revisions may then be made as needed.[2]" As the Environmental Guidelines came into force in October 2003, a comprehensive review for necessary revisions must be conducted by October 2008, five years after the enforcement. JBIC needs to review the status of its confirmation of environmental and social considerations and, in order to contribute to such comprehensive review, verify the implementation status of the Environmental Guidelines.

Part 1, "8. Implementation and Review of the Guidelines" of the Environmental Guidelines also states, "When making revisions, JBIC will seek the opinions of the Japanese Government, the governments of developing countries, Japanese companies, experts, NGOs etc., while maintaining transparency in the process.[3]" Therefore, JBIC hired outside experts of experience and knowledge in the field of the environment in verifying the implementation status of the Environmental Guidelines to ensure transparency of the process.

In connection with the merger with Japan International Cooperation Agency (JICA) scheduled for October 2008, a joint document by the Ministry of Foreign Affairs, JBIC and JICA, titled "Establishment of Framework for Implementation of ODA Programs in the New Age", states, "Environmental guidelines integration of JBIC and JICA should be made in order to give proper considerations to the environmental and social aspects of the implementation of ODA projects and to clearly define the environmental-related procedures on the developing countries, while taking into account the characteristics of each method of assistance". Therefore, verification of the implementation status, comprehensive review, and revisions of the Environmental Guidelines need to be carried out in consultation with JICA. The findings of this survey will be incorporated in the process of the revision of the Environmental Guidelines prior to the merger with JICA.

---

[2] Environmental Guidelines Part 1, "8. Implementation and Review of the Guidelines" p.12

[3] Environmental Guidelines Part 1, "8. Implementation and Review of the Guidelines" p.12

2 OBJECTIVES OF THE SURVEY

2.1 Objectives of the Survey

The objectives of this survey are as follows:

1) To summarize and analyze the actions taken by JBIC for each item set forth in the Environmental Guidelines after the enforcement of the Environmental Guidelines.

2) In addition to the above, to verify the implementation status of the current Environmental Guidelines after their enforcement so as to contribute to the comprehensive review and necessary revisions within five years of enforcement required under the Environmental Guidelines.

3 SCOPE AND METHOD OF THE SURVEY

3.1 Scope of Survey

The survey was conducted on the projects to which the current Environmental Guidelines apply, for which request for funding was submitted after the full enforcement (October 2003) and the loan agreement was executed by March 2007. For each project surveyed, the implementation status of the confirmation items specified in the Environmental Guidelines was verified and the general trends were analyzed.

3.2 Method of Survey

Prior to the verification of the implementation status of the confirmation of environmental and social considerations, the confirmation items specified in the Environmental Guidelines and JBIC's procedures for confirmation of environmental and social considerations under the Environmental Guidelines were made clear. Then, based on JBIC's documents and the information published on the JBIC website, the implementation status of the confirmation items specified in the Environmental Guidelines was verified for all of the 138 projects surveyed. Using these results, the general trends and the trends by region and category, by confirmation items specified in the Environmental Guidelines, and by sector were summarized and analyzed across the projects.

4 SURVEY RESULTS

4.1 JBIC's Procedures for Confirmation of Environmental and Social Considerations

In accordance with the Environmental Guidelines, JBIC verifies the implementation of environmental and social considerations on a continuous basis throughout the project cycle so that appropriate and sufficient environmental and social considerations are undertaken.

4.1.1. Screening

Following the request for funding by the borrowing country, JBIC promptly classifies each project in terms of its potential environmental impact based on the information provided by the borrowers (report of the feasibility study [F/S][4], etc. and the "screening form", etc. submitted by the borrowers and related parties), taking into account such factors as: the sector and scale of the project, the substance, degree and uncertainty of its potential environmental impact and the environmental and social context of the proposed project site and surrounding areas. Then JBIC starts an environmental review according to the procedures applied to each category.

JBIC may revise the categorization when necessary, e.g., in cases where environmental impact worth considering comes to light even after the screening based on the information provided by the borrowers and related parties is performed.

Upon completion of the screening of a project, JBIC discloses on its website, as soon as possible, the project name, country, location, an outline and sector of the project, and its category classification, as well as the reasons for that classification.

4.1.2. Categorization

Each category is defined as follows[5].

Category A: A proposed project is classified as Category A if it is likely to have significant adverse impact on the environment. A project with complicated impact or unprecedented impact which is difficult to assess is also classified as Category A. The impact of Category A projects may affect an area broader than the sites or facilities subject to physical construction. Category A, in principle, includes projects in sensitive sectors (i.e., sectors that are liable to cause adverse environmental

[4] Research and analysis of the economic, social and technical aspects of the proposed project as well as required environmental and social considerations, etc.

[5] Quoted from Environmental Guidelines Part 1, "4. Procedures for Confirmation of Environmental and Social Considerations", (2) Categorization, p.7–8

impact) or with sensitive characteristics (i.e., characteristics that are liable to cause adverse environmental impact) and projects located in or near sensitive areas[6].

Category B: A proposed project is classified as Category B if its potential adverse environmental impact is less adverse than that of Category A projects. Typically, this is site-specific, few if any are irreversible, and in most cases normal mitigation measures can be designed more readily. Projects funded by Engineering Service Loans that are yen loans for survey and design, are classified as Category B, with the exception of those belonging to Category C.

Category C: A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impact. Projects that correspond to one of the following are, in principle, classified as Category C, with the exception of projects with sensitive characteristics and projects located in sensitive areas as indicated in Part 2, Section 3 of the Environmental Guidelines:

1) Projects for which the JBIC's share is not above SDR 10 million;

2) Sectors or projects in which no particular environmental impact would be normally expected; or

3) Cases in which there is only minor involvement of the project by the borrower or JBIC, such as the export/import or lease of items of machinery or equipment that is not connected with a particular project, and where there would be little reasonable significance in JBIC's conducting an environmental review.

Category FI: A proposed project is classified as Category FI if it satisfies all of the following: JBIC's funding of the project is provided to a financial intermediary etc.; the selection and assessment of the actual sub-projects is substantially undertaken by such an institution only after JBIC's approval of the funding and therefore the sub-projects cannot be specified prior to JBIC's approval of funding (or assessment of the project); and those sub-projects are expected to have potential impact on the environment.

4.1.3. Environmental Review

After the screening process, JBIC carries out environmental reviews according to the following procedures for each category[7].

Category A: Environmental reviews for Category A projects examine the potential negative and positive environmental impact of projects. JBIC evaluates measures necessary to prevent, minimize,

---

[6] See Environmental Guidelines Part 2 (p.20) for the generally sensitive sectors, characteristics and areas.

[7] The following part is partially quoted from Environmental Guidelines Part 1, "4. Procedures for Confirmation of Environmental and Social Considerations", (3) Environmental Review for Each Category, p.8–9.

mitigate or compensate for potential negative impact, and measures to promote positive impact if any such measures are available. Borrowers and related parties must submit Environmental Impact Assessment (EIA) reports for Category A projects. For the projects that are expected to result in large-scale involuntary resettlement, basic resettlement plans, etc. also must be submitted. For the appraisal for funding, the Environment Analysis Department[8] also conducts a field survey together with the Development Assistance Department in charge and the Sector Strategy Development Department, and conducts an environmental review.

Category B: The scope of environmental reviews for Category B projects may vary from project to project, but it is narrower than that for Category A projects. The environmental reviews for Category B are similar to that of Category A in that they examine potential negative and positive environmental impact and evaluate measures necessary to prevent, minimize, mitigate or compensate for the potential negative impact, and measures to promote positive impact if any such measures are available. Where an EIA procedure has been conducted, the EIA report may be referred to, but this is not a mandatory requirement. For the appraisal for funding, the Environment Analysis Department takes part in the field survey together with the Development Assistance Department in charge and the Sector Strategy Development Department if necessary upon request for examination by the Development Assistance Department in charge, and conducts an environmental review.

Category C: For projects in this category, environmental reviews will not proceed beyond screening.

Category FI: JBIC checks through the financial intermediary, etc. to see whether appropriate environmental and social considerations as stated in the Environmental Guidelines are ensured for projects in this category.

For Category A and Category B projects, it is stated in the Environmental Guidelines that JBIC publishes the status of major documents on environmental and social considerations by the borrowers and related parties, such as EIA reports and environmental permit certificates, etc. issued by the host government on the JBIC website, and promptly makes available the EIA reports etc.

4.1.4. Taking Environmental Reviews into Account for Decision-making and Loan Agreements

The results of environmental reviews are taken into account for decision-making on funding. If JBIC considers that a project is likely to have an adverse impact on the environment due to inappropriate environmental and social considerations, it will encourage, through the borrower, the project proponent to undertake appropriate environmental and social considerations. If appropriate

[8] The staff of Environment Analysis Department accompanies the appraisal team for Category A projects in principle.

environmental and social considerations are not undertaken, JBIC may decide not to extend funding[9]. If it is confirmed that appropriate environmental and social considerations are undertaken, the results of environmental reviews[10] are published on the JBIC website after the execution of the loan agreement.

4.1.5. Monitoring

After executing a loan agreement, JBIC in principle confirms through the borrower over a certain period of time, for Category A and B projects, the results of monitoring the items which have a significant environmental impact by the project proponents. When necessary, JBIC may also conduct its own investigations. When third parties point out that environmental and social considerations are not being fully undertaken, JBIC, if necessary, encourages the borrowers to request the project proponents to take appropriate action. In the project proponents' response to the claim, JBIC confirms that they carry out the investigation of the specific claim, the examination of countermeasures, and their incorporation into the project plans.

4.1.6. Follow-up[11]

For all projects, ex-post evaluation is conducted after the completion of each project. Starting from FY2003, the environmental and social impact is in principle included in the items of ex-post evaluation and the results are published. Through such follow-up, experience and lessons learned concerning environmental and social considerations in ODA loan projects are accumulated and, through the feedback to the borrowers and executing agencies, they are made effective use of to enhance the effectiveness of future projects.

4.2 General Trends of the Projects Surveyed

Figure 4-1 shows the distribution of 138 projects surveyed by region[12]. The projects in Southeast Asia occupy 38% of all projects, and those in South Asia and East Asia account for 27% and 17%, respectively. Over 80% of all projects surveyed are those in Asia. According to the JBIC Annual Report 2006, among ODA loan commitments to Asian countries, commitments to Southeast Asia and

---

[9] Environmental Guidelines Part 1, "6. Taking Environmental Reviews into Account for Decision-making and Loan Agreements" p.11

[10] The results of environmental reviews are shown in the statements relating to the environmental and social considerations in the ex-ante evaluation.

[11] Follow-up is included in the monitoring process in the Environmental Guidelines.

[12] Regions are divided according to the breakdown in the JBIC Annual Report 2006.

East Asia have been decreasing in recent years both in terms of number and amount, while the share of South Asia has been increasing[13]. On the other hand, as JBIC is expanding its overseas economic corporation operations in Africa, the number of ODA loan commitments to Africa is on the increase[14]. In this survey, the number of projects in Africa accounts for 15% of the total.

By country, nearly 90% of the projects in Southeast Asia (total 52) are concentrated in Indonesia (25) and Vietnam (21). In South Asia (37), the by far largest share is held by India with 20 projects. In East Asia (23), most projects are those in China, though ODA commitments to China are decreasing. In Africa (21), 15 projects, or 70%, are those in North Africa such as Morocco, Tunisia and Egypt, and those in Sub-Saharan Africa are small in number.

Figure 4-1: Regional Distribution of Projects

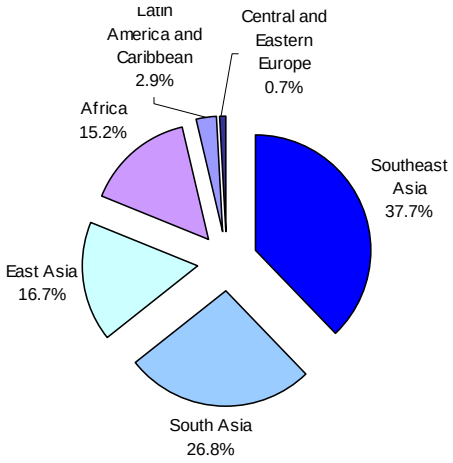


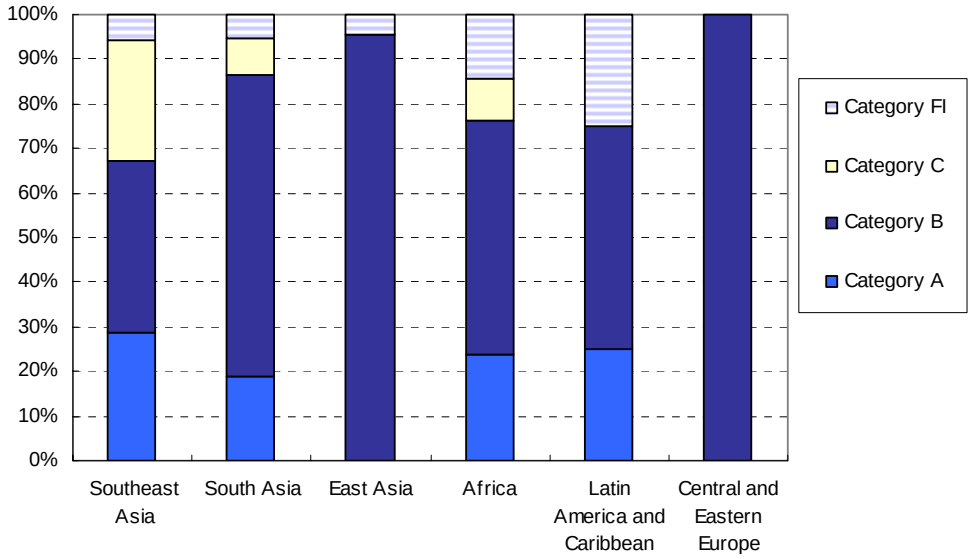
Figure 4-2 shows shares of Category A, Category B, Category C and Category FI projects classified for the purpose of the confirmation of environmental and social considerations in each region.

The projects in Southeast Asia are distributed among Categories A, B, C and FI. Most of the Category A projects (total 15) are large-scale infrastructure development projects in such sectors as power plants (6) and roads and railways (4). Category B projects (total 20) are distributed among various sectors, including 4 projects for power plants, transmission lines and distribution systems in Indonesia to meet the growing demand for power supply and 3 projects for water supply, sewerage and sanitation for the improvement of water environment in Vietnam to contribute to the improvement of the living environment in urban areas. A large portion of Category C projects (total 14) is occupied by education projects (5) and non-project loans relating to poverty reduction and development policy, etc. (8).

[13] The share of loan commitments to Southeast Asia (in number) decreased between FY2004 and FY2005, from 42% (FY2004) → 40% (FY2005), and that to East Asia decreased from 11% → 1%, while that to South Asia increased from 22% → 38%.

[14] The number of loan commitments to Africa increased from one amounting to 5.7 billion yen in FY2004 to 8 amounting to 50.7 billion yen in FY2005.

Figure 4-2: Share of Each Category by Region



In South Asia, the shares of Category A and Category C projects are small, and, comparing with Southeast Asia, Category B holds a large share. Most of Category A projects (total 7) are those in the transportation sector (6) such as railways, ports, roads, etc. Category B projects (total 25) include projects for water supply, sewerage and sanitation (7), transmission lines and distribution systems (4) and those for irrigation and flood control (3) to stimulate industry and achieve poverty reduction, and those for forestry (3) to help improve the environment and people's livelihood. In South Asia, projects for reconstruction from earthquakes and other disasters are included in Category C and Category FI, one project each.

In East Asia, as the emphasis is placed on environmental conservation and human resource development in ODA loan programs in China, there are no Category A projects and most projects are in Category B (22). In particular, projects for water supply, sewerage and sanitation (8) for the improvement of water environment and those for environmental conservation in multi-sectors (6) reflect the active assistance to China in environmental conservation

In Africa, road projects occupy a large part of Category A projects (total 5). In Category A, 3 projects are under EPSA for Africa (Enhanced Private Sector Assistance for Africa), which is a joint initiative with the African Development Bank (AfDB) to provide assistance to the private sector. Category B projects (total 11) include those for power plants, transmission lines and distribution systems, water supply, sewerage and sanitation, etc., and Category FI projects include funding to international institutions.

In Latin America and the Caribbean, Category B projects include sewerage projects and power generation projects to which the Clean Development Mechanism (CDM) for reducing emissions of greenhouse gases is expected to apply. Also, a road project is classified as Category A and an irrigation and flood control project is classified as Category FI.

The project in Central and Eastern Europe covered by the survey is a power generation project in Category B which is aimed at supplying electricity as well as reducing air pollution.

Figure 4-3: Sectoral Distribution of Projects

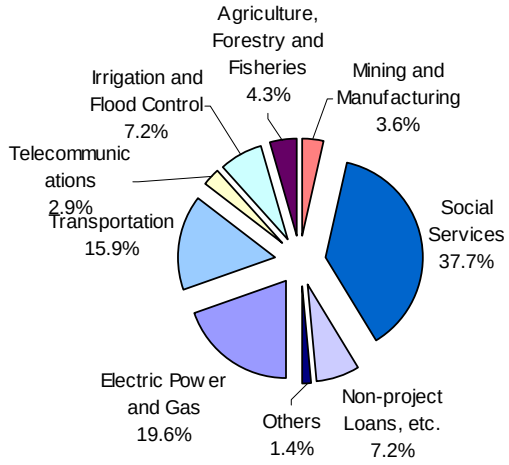
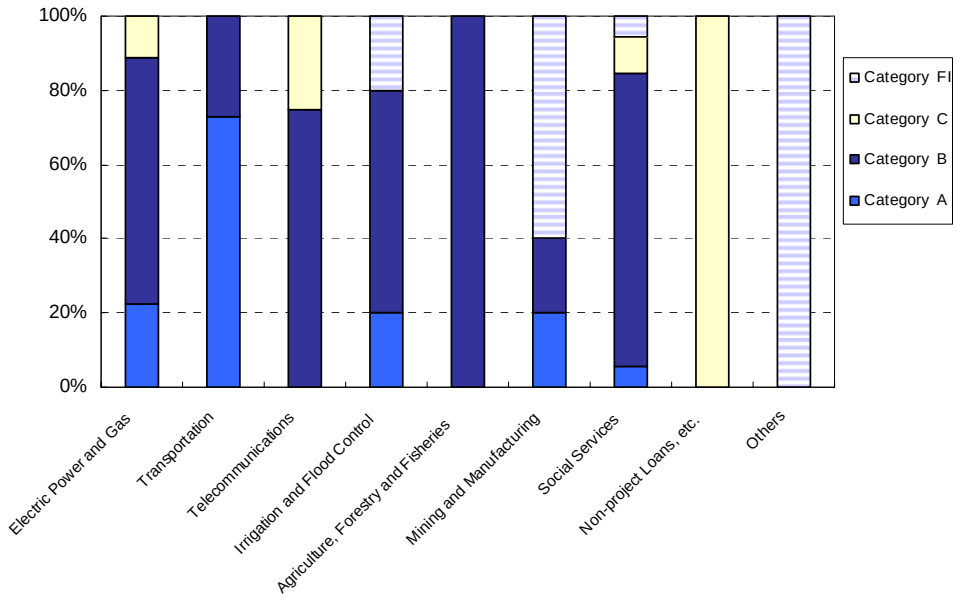


Figure 4-3 shows the distribution of projects surveyed by sector. The share of social services is the largest at 38%, followed by electric power and gas (20%) and transportation (16%). Among the projects for social services (52), the largest number of projects is for water supply, sewerage and sanitation (24). Other projects include those for education (9), environmental conservation in multi-sectors (7) and urban/rural community infrastructure (6).

Figure 4-4 shows shares of Category A, Category B, Category C and Category FI projects classified for the purpose of the confirmation of environmental and social considerations in each sector. In the electric power and gas sector and the transportation sector that often involve large-scale infrastructure development, 22 projects are classified as Category A, which are mainly power generation and road projects. Not all power generation projects are classified as Category A. Those projects for hydraulic or solar power generation to promote use of renewable energy and those to expand existing power plants are classified as Category B. In the transportation sector, 11 projects are road projects in Asia and Africa, many of which are classified as Category A.

Figure 4-4: Share of Each Category by Sector



Projects in the social services sector include those for water supply, sewerage and sanitation (22), education (6) and environmental conservation in multi-sectors such as relating to air and water environments (6). Approximately 80% of these projects are classified as Category B. In the telecommunications sector, telecommunication network projects are classified as Category B and the broadcasting project is classified as Category C because of the nature of these projects.

As mentioned above, non-project loans for poverty reduction, development policy, reconstruction after civil wars and earthquakes, etc. (10) are classified as Category C. Support for small and medium enterprises and the private sector in mining and manufacturing as well as reconstruction assistance is classified as Category FI.

4.3 Trends in Each Region/Category and Analysis

4.3.1. Trends in Each Region

Among the projects surveyed in East Asia, Southeast Asia and Southwest Asia (in total accounting for 84% of all projects surveyed), projects in Indonesia, Vietnam, India and China occupy the largest share in number, or 64% of the total. These countries have experience in ODA loan-financed projects and other projects assisted by other international institutions, and therefore borrowing countries and executing agencies have high capacity to undertake environmental and social considerations in many cases.

In some cases, the governments of borrowing countries adopt a policy of actively introducing soft components such as strengthening of organization and training on environmental and social

considerations. In China, for example, the focus of assistance has been in environmental conservation and human resource development in line with the environmental policy of the government. As the characteristics of assistance to China, the components of environmental education (training, etc.) and strengthening of organization of the executing agency are incorporated in many projects through which assistance is provided for the enhancement of a structure to implement environmental conservation measures.

For India, Vietnam and Indonesia, projects are planned to ensure poverty reduction and social considerations by introducing measures against HIV/AIDS and gender considerations. On the other hand, forestry preservation projects and water supply and sewerage projects for the purpose of environmental conservation and environmental improvement are increasing recently particularly in India and Vietnam. There are many cases where assistance is provided for the components of social development with resident participation, with support from NGOs, as part of the project.

Among projects in Africa (15% of all projects surveyed), projects co-financed with AfDB under the EPSA for Africa which was launched in 2005 are on the increase (3 road projects as of FY2006), in addition to the projects in Morocco and Tunisia. Appraisal of these co-financed projects by field survey including environmental review is entrusted to AfDB as part of its concerted assistance. Based on the results of such appraisal and other environmental information such as EIA reports, JBIC properly confirmed environmental and social considerations through desk appraisal.

As for Latin America and the Caribbean and Central and Eastern Europe, no particular trend was found concerning environmental and social considerations partly due to the small number of projects surveyed (approximately 4% of all projects).

Other characteristics found in particular countries or regions are as follows: in countries and regions with large populations of ethnic minorities and indigenous peoples such as India, Vietnam, China and African countries, measures to protect ethnic minorities and indigenous peoples under domestic laws are observed in implementing projects; and in disaster-affected countries such as Indonesia and Sri Lanka, reconstruction assistance projects are implemented by the resident participatory approach through strengthened cooperation with NGOs.

4.3.2. Trends in Each Category

After the current Environmental Guidelines was put into force, items of environmental and social considerations (items to be implemented) cover wide-ranging areas and more careful and meticulous considerations are implemented as a common trend in all categories. Particularly careful and detailed considerations are implemented for “participation of stakeholders (promotion of participation of local

residents and dialogue)"[15], "information disclosure[16] (transparent and open process through information disclosure)[17], "appropriate compensation and support for local residents affected by land acquisition and resettlement (social considerations for resettlement of local residents, etc. resulting from the project to be implemented)"[18] and "social concerns (social considerations including measures against communicable diseases such as HIV/AIDS, considerations for children's rights, the indigenous peoples and women)[19].

The implementation status of each item will be described in details in 4.4. Regarding "participation of stakeholders (promotion of participation of local residents and dialogue)", it was confirmed under the survey that importance was placed on dialogue with local residents and local NGOs in forming the project plan in every project. As for "information disclosure", "publication of category classification" immediately after the classification, "disclosure of EIA reports and other documents concerning environmental and social considerations" and "publication of the results of environmental reviews" were carried out. Regarding "appropriate compensation and support for local residents affected by land acquisition and involuntary resettlement", in cases where a project involves large-scale resettlement, polices in providing compensation and support to residents to be affected as a result of the project and a resettlement plan including the procedures and schedule were drawn up pursuant to the laws of the borrowing country in consultation with stakeholders such as local residents. Regarding "social concerns", measures against HIV/AIDS were incorporated in infrastructure projects and consideration for gender and indigenous peoples were implemented in many projects (see 4.4.10). Thus, efforts for considerations of poverty and social concerns were made not only in anti-poverty projects participated by local residents but also in large-scale economic infrastructure projects.

General trends in each category are as follows:

Category A projects (28): For all Category A projects, confirmation of environmental and social considerations was properly performed.

---

[15] Environmental Guidelines Part 1, "1. JBIC's Basic Policies Regarding Confirmation of Environmental and Social Considerations" p.3, Environmental Guidelines Part 1, "3. Basic Principles Regarding Confirmation of Environmental and Social Considerations" p.4

[16] "Information Disclosure" is a new item created for the current version of the Environmental Guidelines.

[17] Environmental Guidelines Part 1, "5. Disclosure of Information Regarding Confirmation of Environmental and Social Considerations by JBIC" p.9

[18] Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" p.13, Environmental Guidelines Part 1, "4. Procedures for Confirmation of Environmental and Social Considerations" p.6

[19] Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" p.13, Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" p.14

"Measures against environmental impact (measures to prevent, minimize and reduce environmental impact, alternative proposals, and examination of secondary and cumulative impact)[20]", "comparison with domestic and international standards[21]" and "an appropriate follow-up structure such as a monitoring plan[22]" were reviewed in details based on a master plan (M/P) study[23], feasibility study (F/S) and EIA reports, etc., and their appropriateness were confirmed. With respect to large-scale land acquisition and resettlement of residents that were involved in many Category A projects, in order to ensure "provision of appropriate compensation and support for the affected local residents based on the land acquisition and resettlement plan (prepared by the borrowing country and the executing agency in accordance with domestic laws)[24]", consultations with local residents were held at the time of EIA or prior to the execution of the loan agreement, and then the loan agreement was executed after confirming that basic consensus by local residents had been made on the implementation of the project and contents of compensation and support for the affected residents through an appropriate process. These facts show that "achievement of social acceptability through sufficient consultations with stakeholders such as local residents (achievement of social acceptability[25]" was also properly confirmed. As for monitoring, it was confirmed under the survey that the status of mainly social considerations such as the progress of land acquisition and resettlement procedures were confirmed by the progress report submitted by the executing agency and interview with the executing agency.

Category B projects (81): For almost all Category B projects, confirmation of environmental and social considerations was properly performed.

Category B projects are considered likely to have insignificant adverse impact on the environment. They cover wide-ranging sectors and the degree of environmental impact varies by project. For the projects whose potential impact on the environment is relatively large among Category B projects and for which EIA was conducted, "measures against environmental impact (measures to prevent, minimize and reduce environmental impact, alternative proposals, and examination of secondary and cumulative impact)", "comparison with domestic and international standards" and "an appropriate

---

[20] Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" (Examination of Measures) p.13

[21] Environmental Guidelines Part 1, "3. Basic Principles Regarding Confirmation of Environmental and Social Considerations", (4) Standards for Confirmation of Appropriateness of Environmental and Social Considerations, p.5

[22] Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" p.13, Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" p.14

[23] Study for preparing comprehensive basic plans for various development plans.

[24] Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" p.15, Environmental Guidelines Part 1, "4. Procedures for Confirmation of Environmental and Social Considerations" p.8

[25] Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" (Social Acceptability and Social Impacts) p.14

follow-up structure such as a monitoring plan" were clearly confirmed under the survey. On the other hand, for some projects that were expected to have little impact on the environment, implementation of an "examination of alternative proposals[26]" and "comparison with international standards[27]" were not confirmed under the survey. Regarding monitoring, like Category A projects, the status of social considerations such as the progress of land acquisition and resettlement procedures were mostly confirmed by the progress report submitted by the executing agency and interview with the executing agency.

Category C projects (19): For almost all Category C projects, confirmation of environmental and social considerations was properly performed.

For Category C projects, which are expected to have minimal or no adverse impact on the environment, environmental reviews do not proceed beyond screening. Therefore, "basic policies and principals regarding confirmation of environmental and social considerations[28]", "items related to screening[29]", "items related to information disclosure[30], "taking environmental reviews into account for decision-making and loan agreements[31]" and "ensuring appropriate implementation of and compliance with the guidelines[32]" are the confirmation items for environmental and social considerations under the Environmental Guidelines.

For Category C projects, it was confirmed under the survey that poverty reduction through Development Policy Lending and gender considerations were implemented as part of social considerations.

Category FI projects (10): For all Category FI projects, confirmation of environmental and social considerations was properly performed.

---

[26] Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" p.13, Environmental Guidelines Part 2, "2. Appendix: Illustrative Environmental Impact Assessment Report for Category A Projects" p.18

[27] Environmental Guidelines Part 1, "3. Basic Principles Regarding Confirmation of Environmental and Social Considerations" p.5

[28] Environmental Guidelines Part 1, "1. Basic Policies Regarding Confirmation of Environmental and Social Considerations" p.3, Environmental Guidelines Part 1, "3. Basic Principles Regarding Confirmation of Environmental and Social Considerations" p.4–5

[29] Environmental Guidelines Part 1, "4. Procedures for Confirmation of Environmental and Social Considerations", (1) Screening, p.6

[30] Environmental Guidelines Part 1, "5. Disclosure of Information Regarding Confirmation of Environmental and Social Considerations by JBIC" p.9–10

[31] Environmental Guidelines Part 1, "6. Taking Environmental Reviews into Account for Decision-making and Loan Agreements" p.11

[32] Environmental Guidelines Part 1, "7. Ensuring Appropriate Implementation of and Compliance with the Guidelines" p.11–12

Category FI was newly created for the current version of the Environmental Guidelines. In this category, since individual sub-projects to be funded by ODA loans have not been specified at the time of execution of the loan agreement and environmental and social considerations for those sub-projects cannot be confirmed prior to the execution of the loan agreement, it is impossible to predict environmental and social impact prior to loan disbursement in many cases. Therefore, it is extremely important to clearly define prior to loan disbursement the process and structure for implementing environmental and social considerations when those sub-projects are selected. In view of these circumstances, for the projects surveyed, the process and structure for implementing environmental and social considerations were confirmed through the executing agency or an intermediary financial institution after checking the implementation capacity of such institution. In order to "ensure that appropriate environmental and social considerations are undertaken", measures were taken such as hiring a consultant to strengthen environmental and social considerations in light of the capacity of the executing agency, excluding sub-projects classified as Category A when selecting a sub-project, or, if a sub-project is classified as Category A, requiring submission of an EIA report in accordance with JBIC's Environmental Guidelines.

4.4 Trends by Item of Environmental Guidelines and Analysis

In accordance with the method of survey described in 3.2 above, provisions of the Environmental Guidelines were classified by subject items and JBIC's method of confirming implementation was reviewed for each item. Also, the implementation status was analyzed by taking up some examples.

The analysis was conducted in the following procedure. First, the relevant section of the Environmental Guidelines was extracted for each item. Then the points to consider when implementing environmental and social considerations common to all categories were specified and, considering those points, the general implementation status was examined. After that, the implementation status of each category was analyzed taking into account the characteristics of each category. For Category C, the procedures for confirmation of environmental and social considerations did not proceed beyond screening; and for Category FI, detailed confirmations of environmental and social considerations were planned to be conducted after specific sub-projects were determined in many items, though the process and structure for implementing environmental and social considerations were confirmed. Therefore, the analysis was conducted mainly for Category A and Category B projects for many subject items.

4.4.1. Screening

Relevant Section of Environmental Guidelines

JBIC requests the borrowers and related parties to submit the necessary information promptly so that it may perform the screening process at an early stage.

During the screening process, JBIC classifies each project in terms of its potential environmental impact, taking into account such factors as: the sector and scale of the project, the substance, degree and uncertainty of its potential environmental impact and the environmental and social context of the proposed project site and surrounding areas.

JBIC may revise the categorization when necessary, e.g., in cases where environmental impact worth considering comes to light even after the screening based on the information provided by the borrowers and related parties is performed.

(Environmental Guidelines Part 1, "4. Procedures for Confirmation of Environmental and Social Considerations", (1) Screening, p.6)

(Common to all categories)

Examination for screening is started upon receipt of the request from the borrower based on various information provided by the borrower and the executing agency. In the usual project cycle, information necessary for screening (1) need for and status of acquisition of permits and approvals for environmental impact assessment, 2) information of the project [description, scale, site, etc.] and 3) degree, areas and characteristics of environmental impact) are obtained from the borrower and the executing agency at the time of fact finding (F/F)[33] in the earliest project planning stage and then the project is categorized. After that, categorization is revised, if necessary, when environmental impact worth considering comes to light.

After the receipt of the request, obtainment of information on environmental impact of projects in an early stage and examination for screening were properly carried out for the project surveyed.

Even after the screening, the categorization was revised when necessary. Among the projects surveyed, revision of categorization took place for 2 projects after the appraisal[34].

[33] JBIC's in-house investigation conducted prior to the appraisal. The purpose is to exchange opinions with the government of the borrowing county, the executing agency, etc. for the purpose of making the project more mature and to collect necessary information.

[34] In one case, a project classified as Category A in screening was changed to E/S loan (Category B) after the appraisal taking into account the maturity of the project（Indonesia : "E/S For Asahan No.3 Hydroelectric Power Plant Project"）. In other case, the category of a project that was originally classified as Category A (large-scale groundwater pumping) was

The table below shows the classifications of the surveyed Category A projects (28).

Major Classification	Projects Surveyed
1) Large-scale projects in the sensitive sector	Thermal power; hydropower, dams and reservoirs; roads, railways and bridges; ports and harbors; sewage and wastewater treatment having sensitive characteristics or being located in sensitive areas or their vicinity; waste management and disposal; agriculture involving large-scale land-clearing or irrigation
2) Sensitive characteristics	・ Large-scale involuntary resettlement ・ Large-scale groundwater pumping ・ Large-scale land reclamation, land development and land-clearing ・ Large-scale logging
3) Sensitive areas	・ National parks, nationally-designated protected areas (coastal areas, wetlands, areas for ethnic minorities or indigenous peoples and cultural heritage, etc. designated by national governments) ・ Areas considered to require careful consideration by the country or locality (Natural Environment) ・ Habitats with important ecological value (coral reefs, mangrove wetlands and tidal flats, etc.) ・ Habitats of rare species requiring protection under domestic legislation, international treaties, etc. ・ Areas in danger of large-scale soil erosion (Social Environment) ・ Areas with unique archeological, historical or cultural value ・ Areas inhabited by ethnic minorities and indigenous peoples, etc.

4.4.2. Impact Analysis

Relevant Section of Environmental Guidelines

Environmental impact which may be caused by a project must be assessed and examined from the earliest planning stage possible. Alternative proposals or minimization measures to prevent or reduce adverse impact must be examined and incorporated into the project plan.

(Environmental Guidelines Part 2, “1. Environmental and Social Considerations Required for

changed to B because it was confirmed at the time of appraisal that limits on intake of groundwater were imposed to prevent the problems of subsidence, etc (China: “Xinjiang Uygur Autonomous Region Yining City Comprehensive Environmental Renovation Project”).

Funded Projects" p.13)

JBIC undertakes its environmental reviews based on the EIA and other reports prepared by the project proponents and submitted through the borrower.

(Environmental Guidelines Part 1, "4. Procedures for Confirmation of Environmental and Social Considerations", (3) Environmental Review for Each Category, p.8)

(Common to all categories)

From the early stage of project planning, based on the feasibility study (F/S) reports and EIA reports, etc. JBIC determines the scope of items to be evaluated that are considered important and evaluates the environmental impact analysis conducted by executing agencies in terms of appropriateness of the measures to prevent, minimize, or reduce adverse impact for each environmental item (environmental reviews are implemented after classifying the environmental items into 1) anti-pollution measures, 2) natural environment, 3) social environment, and 4) others [including the impact expected to occur during construction, etc.]).

(Category A projects)

From the request for funding and the early planning stage such as fact finding (F/F) through to appraisal and execution of loan agreements, environmental impact is checked on a continuous basis through feasibility study (F/S) reports, EIA reports, the basic resettlement plan, consultation with local agencies concerned and the hearing of opinions of local residents. At the time of appraisal, the staff of the Environment Analysis Department accompanies the appraisal mission, in principle, to perform confirmation of environmental and social considerations. Items of environmental impact that are likely to be caused by Category A projects vary widely by sector and by project. Major evaluation items are as follows:

- Anti-pollution measures taken after the start of service (air quality, water quality, waste, noise and vibration, subsidence, odor, etc.)
- Impact during construction (soot and dusts, exhaust gases, noise and vibration, water quality, etc.)
- Natural environment (valuable species, protected areas, topography and hydrology, etc.)
- Social environment (resettlement and land acquisition, living and livelihood, heritage and landscape, indigenous peoples, etc.)
- Monitoring (various items that are likely to have large environmental and social impacts)

For each evaluation item, alternative proposals for the prevention and minimization, etc. of adverse impact, necessary reduction measures and compensation are examined mainly in the environmental management plan and the monitoring plan. Detailed examination of each impact item is actually performed as part of the detailed design (D/D) study after the start of the project in many cases. For all projects surveyed, examination and confirmation of environmental impact assessment were properly performed based on the project scope specified at the time of appraisal.

(Category B projects)

Even though reference to the EIA report is not mandatory for the Category B project by the Environmental Guidelines, EIA is sometimes conducted in compliance with domestic laws, etc. of the borrowing country[35]. In these cases, the environmental impact is properly checked according to the items of environmental impact of the EIA report and the results are reflected in the agreements for appraisal.

For Category B projects with relatively small adverse impact on the environment such as the projects to repair and rehabilitate existing facilities and the projects for transmission lines and distribution systems, appropriate reviews are conducted taking into account the contents and characteristics of each project by conducting environmental reviews based on the secondary data, etc. of study reports such as the feasibility study (F/S) report or examining detailed measures to prevent environmental and social impacts when providing the E/S loan or preparing the detailed design (D/D). For all Category B projects surveyed, examination and confirmation of environmental assessment were properly performed.

Relevant Section of Environmental Guidelines

In addition to the direct and immediate impact of projects, derivative, secondary and cumulative impact are also to be examined and investigated to a reasonable extent.

(Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" [Scope of Impact to be Examined] p.14)

(Common to all categories)

For this item, the impact to be examined varies depending to the characteristics of the locality and the project. In many cases of the surveyed projects, examination of cumulative impact affecting a wider area than the project area caused by the pollutants (wastewater, air quality and waste, etc.)

[35] EIA was conducted for 41 projects out of 81 Category B projects surveyed

discharged in a large-scale land development project or from the completed facilities, and examination of impact on human health and safety and items requiring preventive measures (precautionary principle) were conducted. For example, prevention of infectious diseases (HIV/AIDS etc.) among construction workers and prevention of traffic accidents involving construction vehicles were taken up as impact reduction measures and activities to raise awareness on such issues were carried out as part of the project in many cases.

(Category A projects)

For a large-scale infrastructure project that has broad impact, not only the impact on the vicinity and immediate impact, but also broader potential impacts such as change in land use in the backland area of the project site and the impact on economic activities of local residents are examined from the early planning stage.

Also, as stated above, in countries with high HIV/AIDS infection rates which are subject to HIV/AIDS preventive measures, measures against HIV/AIDS are incorporated in the project plan by including HIV/AIDS prevention provisions in the contractor agreement, etc[36].

An example of other secondary and cumulative impacts is the environmental impact of heavy metals removed in the process of reusing waste coal ash from power plants (pursuant to the domestic recycling law), for which investigation was conducted and countermeasures were considered in one case[37].

(Category B projects)

As adverse environmental impact is expected to be insignificant, secondary and cumulative impact is examined only in limited cases where such examination is necessary for HIV/AIDS preventive measures and traffic safety measures, etc.

Relevant Section of Environmental Guidelines

(With respect to the scope of impact to be examined) It is also desirable that the impact which can occur at any time during the duration of the project be continuously considered throughout the life cycle of the project.

(Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" [Scope of Impact to be Examined] p.14)

[36] HIV/AIDS preventive measures have been incorporated in 23 projects' plan out of 28 Category A projects

[37] India : "Delhi Mass Rapid Transport System Project (Phase 2)(I)"

The followings are examples of projects whose impact that may occur during the duration of the project is considered.

- Power generation project (1): As a measure for waste disposal, it was decided to take measures to prevent water leakage from the ash disposal site using a waterproof sheet and it was confirmed that the ash disposal site has sufficient capacity for about 20 years (lifecycle of the project). (Viet Nam : "Ninh Binh II Thermal Power Plant Construction Project(I)")
- Power generation project (2): It was confirmed that the ash disposal site was designed to have a capacity to hold 25 years' (lifecycle of the project) worth of coal ash. (Viet Nam : "Nghi Son Thermal Power Plant Construction Project(I)")

4.4.3. Examination of Alternative Proposals

Relevant Section of Environmental Guidelines

Multiple alternative proposals must be examined to prevent or minimize adverse impact and to choose a better project option in terms of environmental and social considerations.

(Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" [Examination of Measures] p.13)

Systematically compares feasible alternatives to the proposed project site, technology, design and operation including the "without project" situation in terms of their potential environmental impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training and monitoring requirements. For each of the alternatives, quantifies the environmental impacts to the extent possible, and attaches economic values where feasible. States the basis for selecting the particular project design proposed and offers justification for recommended emission levels and approaches to pollution prevention and abatement.

(Environmental Guidelines Part 2, "2. Appendix: Illustrative Environmental Impact Assessment Report for Category A Projects" [Analysis of alternatives] p.18)

(Common to all categories)

Examination of alternative proposals usually starts from the early investigation stage such as the master plan (M/P) study and feasibility study (F/S). Generally, in the master plan (M/P) study of the comprehensive regional development plan or sector development plan, etc., alternative proposals

regarding sector policy or development plan are compared and examined from a strategic viewpoint in terms of 1) policy, 2) socioeconomic aspect, 3) technical choice, 4) land use plan, 5) environmental aspect (in terms of strategic environmental assessment [SEA], etc.). In the study at the project examination stage such as the feasibility study (F/S) etc., alternative project proposals including the zero option (not to implement the project) are compared and examined in terms of 1) site conditions, 2) technical scope, 3) economic efficiency, 4) environmental and social characteristics of each proposed project site, potential environmental and social impacts and reduction measures, 5) implementation, operation and maintenance plans, etc.

In many cases, by the time when a request for ODA loan is made by the government of the borrowing country, the project plan has been drawn up after the examination as described above. Therefore, in many cases, JBIC confirms how the submitted project plan was selected after the examination of various alternative proposals usually by reviewing the master plan (M/P) study, feasibility study (F/S) report, EIA report, etc. or based on the information provided by the borrower and the executing agency.

(Category A projects)

It was confirmed under the survey that economic, technical, environmental and social aspects of alternative proposals were examined mainly through the master plan (M/P) study, feasibility study (F/S), EIA report (or Special Assistance for Project Formation [SAPROF][38]), etc. and the results were reflected in the project. In the environmental aspect, anti-pollution measures, effective use of resources, impact on natural environment, environmental impact during construction, etc. were examined and in the social aspect, examination was made from the view point of minimizing the extent of land acquisition and resettlement in many cases. It was confirmed that examinations of alternative proposals were properly performed for all Category A projects surveyed.

(Category B projects)

Like Category A projects, for the projects that are likely to have relatively large environmental impact, the results of the examination of alternative proposals were confirmed under the survey. In some cases, however, it was not confirmed under the survey that examination of alternative proposals was performed when such examination was determined unnecessary because large environmental impact was not expected[39].

The followings are examples of the examination of alternative proposals confirmed.

---

[38] Special Assistance for Project Formation: To conduct additional investigation to assist the borrowing county in project formation when the formation of a sufficient project plan of a highly needed project is difficult due to financial, technical and other restrictions.

[39] Please refer to Annex 1

(Example 1) Road project

In the EIA report, the zero option (not to implement the project), development of alternative transport modes, and improvement of existing roads were examined in terms of environmental and social aspects, cost-effectiveness, operation and maintenance aspects, etc. and the proposal to improve existing roads was selected. In the examination of road alignments, bypass roads were planned to be constructed at 8 sections in order to minimize the extent of resettlement and reduce air pollution, noise and traffic accident in the urban areas. As a result, the number of local households and shops subject to resettlement in the relevant area was reduced from 1,340 households to 11 households and from 3,170 shops to 66 shops, respectively. (Pakistan : "Indus Highway Construction Project (III)")

(Example 2) Port project

When selecting the development area, not only the economic efficiency but also environmental impact that is expected to be caused by the change in topography due to the increase in the volume of dredging were examined through project formation studies such as the feasibility study (F/S) as well as EIA before selecting the project site. Then, four alternative proposals on the layout of port facilities were examined in terms of 1) future expandability of the berth, 2) shore access, 3) suitability as a coastal route, 4) road access, 5) interference with existing ports, 6) project list, 7) positional relationship with cultural heritage, and 8) environmental and social impacts including the impacts on hydrography, animals and plants such as coral and seaweed, and fishing activities. As a result, the current project was selected not only from the technical and economic viewpoints but also because it was likely to have minimal adverse impact on the environment including cultural heritage. (Sri Lanka : "The Galle Port Development Project (I)")

4.4.4. Participation of Stakeholders

Relevant Section of Environmental Guidelines

In its confirmation of environmental and social considerations, JBIC places importance on dialogue with the host country (including local governments), borrowers and project proponents regarding environmental and social considerations, while respecting the sovereignty of the host country. It also takes note of the importance of transparent and accountable processes, as well as the participation in those processes of stakeholders in the project concerned, including local residents and local NGOs affected by the project.

(Environmental Guidelines Part 1, "1. JBIC's Basic Policies Regarding Confirmation of Environmental and Social Considerations" p.3)

JBIC recognizes the importance of information received not only from the borrowers and related

parties but also from governments and organizations of host countries, co-financiers and stakeholders, and utilizes such information in its screening and environmental reviews.

(Environmental Guidelines Part 1, "3. Basic Principles Regarding Confirmation of Environmental and Social Considerations", (3) Information Required for Environmental and Social Considerations, p.5)

(Common to all categories only)

JBIC performs confirmation of environmental and social considerations based on the principle that stakeholders include local residents of not only the project site but also the areas that are likely to be affected (in this context, those areas to be affected may extend beyond national borders).

The followings are examples where project formation was carried out through dialogue with NGOs and the implementation system to make use of NGOs' expertise was incorporated in the project.

(Example 1) Afforestation project

In the project planning stage, a local NGO expressed concern over the need to implement the project and insufficient consultation with local residents including the local NGO. In response, a dialogue was held by the forest department of the province of the project site and the local NGO at the request of JBIC. At the same time, JBIC conducted a field investigation together with the executing agency and a Japanese NGO, in which the project outline and the NGO/resident-participatory scheme[40] was explained through consultations held by the local NGO with local residents, opinions were exchanged with residents, etc. (India : "Orissa Forestry Sector Development Project")

(Example 2) Small-scale infrastructure development project

In this project, it has been decided to establish a NGO facilitation fund to promote collaboration with NGOs' projects in the project area (promotion of agriculture, activities in sanitation education, participatory capacity development, etc.) and thereby further development the effects of the project. (Viet Nam : "Small-Scale Pro Poor Infrastructure Development Project(II)")

(Example 3) Waste disposal project

[40] For this project, it has been decided that the forest department of the province will decide the villages to be covered by the project in consultation with local residents and that the forest management association organized by residents of each village will draw up a project plan including afforestation while receiving advice from the forest department. Also in this project, prior to the start of joint forest management, activities to educate residents and training to the provincial forest department are planned to be provided under the support of local NGOs and consultants.

In this project, it has been decided that scavengers (people earning income by collecting and selling garbage) would be contracted for garbage collection from multiple dwelling houses in an organized manner with the support of a local NGO. Also, activities to raise awareness of environmental issues including the 3Rs (Reduce, Reuse, Recycle) are planned to be carried out in cooperation with local NGOs, resident organizations and educational institutions with a view to enhancing the environmental consciousness of residents. (India : "Kolkata Solid Waste Management Improvement Project")

There are also many other examples of NGO's participation in project implementation, including awareness-raising activities such as strengthening of resident organizations in participatory afforestation projects and water supply and sewerage projects, and activities to promote education on public health such as HIV/AIDS in infrastructure development projects, etc.

4.4.5. Governance and Implementation Structure

Relevant Section of Environmental Guidelines

JBIC takes note of the importance of good governance with regard to projects for the sake of appropriate environmental and social considerations.

(Environmental Guidelines Part 1, "3. Basic Principles Regarding Confirmation of Environmental and Social Considerations", (4) Standards for Confirmation of Appropriateness of Environmental and Social Considerations, p.6)

(Common to all categories)

For the implementation of a project, not only the structure for implementing the project itself but also the structure for ensuring environmental and social considerations is confirmed. JBIC conducts environmental reviews while paying attention to such structure for implementing environmental and social considerations. The structure for implementing environmental and social considerations is the structure for ensuring that the environmental monitoring plan and environment management plan, etc. prepared mostly by the executing agency will be implemented. At the time of appraisal, JBIC identifies the party responsible for such structure and confirms the environmental monitoring system for anti-pollution measures, etc. and the monitoring system concerning land acquisition and resettlement.

(Category A projects)

In the cases where monitoring items include items for anti-pollution measures and items concerning natural environment, the environmental monitoring system is examined in terms of 1) responsible parties (supervisory and implementing bodies), 2) source of funds, 3) periodic reporting

obligation, 4) hiring of environmental consultants when necessary and their role, 5) evaluation system, 6) punitive provisions to be applied when the allowable limits are exceeded (as appropriate), etc.

Where monitoring items include items concerning the social environment (such as resettlement and land acquisition), the monitoring system for land acquisition and resettlement is examined in terms of 1) responsible party (supervisory body and the body that implements monitoring of resettlement procedures, living situation, etc.), 2) periodic reporting obligation and evaluation system, 3) hiring of environmental consultants (NGO, etc.) when necessary and their role, 4) objection system regarding compensation, etc.

For all projects surveyed, confirmation of appropriate governance and implementation structure was performed.

(Category B projects)

Like Category A projects, for all projects surveyed, confirmation of appropriate governance and implementation structure was performed.

(Category FI projects)

For Category FI projects where environmental impact of sub-projects is not foreseeable in advance, the structure for implementing environmental and social considerations needs to be confirmed prior to the implementation of the project.

In the case of funding to an intermediary bank such as a two-step loan, significant impact of sub-projects cannot be specified prior to the approval of funding. However, in order to ensure appropriate governance of environmental and social considerations as of the time of loan disbursement, it is agreed with the government of the borrowing country at the time of appraisal, etc. that 1) the executing agency will perform confirmation of environmental and social considerations in accordance with the Environmental Guidelines (including the co-financier's environmental guideline), 2) as for a sub-project that specifically requires environmental and social considerations, the end-user must obtain JBIC's approval after preparing and submitting an EIA report to the intermediary bank.

For the projects where sub-projects cannot be specified prior to the approval of funding other than two-step loans, usually it is agreed with the government of the borrowing country at the time of appraisal that the executing agency will 1) select, in accordance with the Environmental Guidelines, the sub-projects that are determined likely to have insignificant adverse impact on the environment, and 2) obtain JBIC's approval[41].

[41] There are some cases where it is agreed that initially planned sub-projects require JBIC's approval and subsequent sub-projects will be reported to JBIC after they are selected, for which JBIC will conduct reviews as necessary.

For every project, the framework of the implementation structure of environmental and social considerations for ensuring appropriate governance has been clearly laid out prior to loan agreement and this item was properly implemented in all Category FI projects.

(Example) Air pollution and water quality improvement project

This is a two-step loan project to finance companies introducing environment improvement facilities. The following structure for environmental and social considerations has been confirmed.

It has been decided that the executing agency (the environment agency of the borrowing country) confirms environmental and social considerations when selecting sub-projects taking into account JBIC's Environmental Guidelines and the environmental guidelines of the borrowing country. For each sub-project to be implemented, the executing agency will execute Project Agreement with the end-user and set a target for emission reduction. Environmental monitoring will be performed by each factory and the results will be reported to the executing agency. Also, it has been decided that the technical team of PMU (project management unit) to be established in the executing agency will give advice on and conduct appraisal of environment improvement facilities to be introduced under the sub-project. (Egypt : "Environmental Pollution Abatement Project")

4.4.6. Compliance with Laws and Standards

Relevant Section of Environmental Guidelines

JBIC ascertains whether a project complies with environmental laws and standards, of the host national and local governments concerned, as well as whether it conforms to their environmental policies and plans.

(Environmental Guidelines Part 1, "3. Basic Principles Regarding Confirmation of Environmental and Social Considerations", (4) Standards for Confirmation of Appropriateness of Environmental and Social Considerations, p.6)

(Common to all categories)

With respect to environmental standards, JBIC ascertains whether the planned values for the implementation of a project are consistent with the laws and standards of the host country while taking account of the measured values (baseline) of the project. Also, regarding land acquisition and resettlement procedures, JBIC ascertains whether the resettlement plan and the compensation plan have been prepared in compliance with domestic laws.

(Category A projects)

For Category A projects, at the time of appraisal, the planned values are sure to be compared with domestic standards while taking account of the measured values (baseline) of each item of the feasibility study (F/S) and EIA report (air and water quality, noise, vibration, etc.) to determine the appropriateness of the planed values. With respect to the natural environment, it is ascertained whether protected areas or valuable species exist in the project area in the light of domestic (both national and local) environmental laws and regulations, etc. Regarding land acquisition and resettlement, considering that the actual land acquisition procedures are carried out by local governments such as provincial, county or municipal governments, the laws and guidelines of local governments are checked in addition to the national laws concerning land acquisition and compensation for the confirmation of the appropriateness of the land acquisition and resettlement plan in many cases.

In this way, for all Category A projects surveyed, confirmation of compliance with environmental laws and standards set by the government of the host county and the local governments concerned were properly performed.

(Category B projects)

For all Category B projects surveyed, like Category A projects, confirmation of compliance with environmental laws and standards set by the government of the host county and the local governments concerned were properly performed.

Relevant Section of Environmental Guidelines

JBIC also uses, as reference points or benchmarks, examples of standards and/or good practices regarding environmental and social considerations established by international and regional organizations and developed countries such as Japan. If JBIC believes the environmental and social considerations of the project substantially deviate from these standards and good practices, it will consult with the host governments (including local governments), borrowers and project proponents to confirm the background and rationale for this deviation.

(Environmental Guidelines Part 1, “3. Basic Principles Regarding Confirmation of Environmental and Social Considerations”, (4) Standards for Confirmation of Appropriateness of Environmental and Social Considerations, p.6)

(Common to all categories)

JBIC determines the appropriateness of the planned values of the project by comparing them with domestic laws and standards while taking account of the baseline as stated above, and at the same time by comparing them with international standards, etc.

JBIC usually uses international conventions, the Pollution Prevention and Abatement Handbook (PPAH) of the World Bank, standards of other international organizations, standards and regulations in Japan, as well as those in other countries such as the United States and European countries.

Examples of standards to be referred to are shown in the table below.

Table 4-1: Examples of Environmental Standards

Pollution prevention/abatement
PPAH of the World Bank
Regulation standards in Japan and in the United States
MARPOL Convention
Natural Environment
World Heritage Convention
Ramsar Convention
Washington Treaty
The Red List of IUCN
Social Environment
World Heritage Convention
World Bank Operational Policy 4.12 concerning Involuntary Resettlement
World Bank Operational Directive 4.20 concerning Indigenous Peoples (current Operational Policy 4.10)
Guidelines for Resettlement of DAC

Source: JBIC website (FAQ)

(Category A projects)

For Category A projects, at the time of appraisal, the planned values are compared with not only the predictive values and domestic standards but always also international standards while taking account of the measured values (baseline) of each item of the feasibility study (F/S) and EIA report (air and water quality, noise, vibration, etc.) to determine the appropriateness of the planed values. There are many countries that do not have standards for vibration, noise, etc. In such cases, the appropriateness of the planned values is determined by comparing with the standards of Japan, etc.

and international standards. With respect to the natural environment, examination of the existence of protected areas under the international treaties listed above and examination of the existence of valuable species under the Red Data Book, etc. are conducted.

For all Category A projects surveyed, confirmation of compliance with laws and standards with reference to international standards was properly performed.

(Example) Power plant construction project

It was confirmed that the emissions of SO_2, NOx, and soot and dust were planned to meet the emission standards (for thermal power generation) of the borrowing country and PPAH of the World Bank by introducing an exhaust gas desulfurizer (desulfurization rate: 80%), a low NOx burner, and an electrostatic dust precipitator (precipitation efficiency: 99.5%). (Viet Nam : "Nghi Son Thermal Power Plant Construction Project (I)")

(Category B projects)

Like Category A projects, for the projects that are likely to have relatively large environmental impact, the planned values were examined with reference to international standards. In some cases, however, it was not confirmed under the survey that such reference was made because large environmental impact was not expected[42].

4.4.7. Monitoring Plan and Environmental Management Plan

Relevant Section of Environmental Guidelines

Appropriate follow-up plans and systems, such as monitoring plans and environmental management plans, must be prepared; and costs of implementing such plans and systems, and financial methods to fund such costs, must be determined. Plans for projects with particularly large potential adverse impact must be accompanied by detailed environmental management plans.

(Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" [Examination of Measures] p.13)

In cases where sufficient monitoring is deemed essential for the achievement of appropriate environmental and social considerations, project proponents must ensure that project plans include monitoring plans which are feasible.

(Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for

[42] Please refer to Annex1

Funded Projects" [Monitoring] p.16)

(Common to all categories)

As part of the follow-up efforts to ensure that the planned mitigation measures are taken and examine whether any external change that was not initially foreseeable causes adverse environmental impact, JBIC examines the monitoring results for a certain period of time via the project progress report, etc. submitted by project proponents (for Category A and Category B projects).

Examples of the items and period of monitoring are shown in "Items Requiring Monitoring[43]" in the Environmental Guidelines, though they vary depending on the sector and nature of the project as well as regional characteristics. Compliance with the monitoring plan is usually included in the terms of agreement with the borrower at the time of appraisal.

(Category A projects)

For a Category A project that is likely to have particularly large environmental impact such as the project related to the transportation sector or electric power and gas sector, the environmental management plan (measures against and the method to manage the potential large impact [source, objectives, steps to be taken, management points, duration, etc.], cost, and parties responsible for implementation, guidance and reporting) and the monitoring plan (details of monitoring for the purpose of evaluating effectiveness of the environmental management plan, etc. [source of impact and monitoring parameters], method, location, duration, frequency, cost, and parties responsible for implementation, guidance and reporting) are examined and confirmed at the time of appraisal based on the EIA report, etc. In this way, for all Category A projects surveyed, environmental monitoring plans and environmental management plans were drawn up properly and were reviewed by JBIC.

Environmental consultants are hired when necessary in light of the implementation capacity and experience of the executing agency to support environmental management and monitoring.

(Example) Irrigation project (Viet Nam : "Phan Ri - Phan Thiet Irrigation Project")

Prior to implementing a large-scale irrigation project, details and the system of monitoring under the environmental monitoring plan, health impact assessment, and resettlement plan were confirmed as follows.

[43] Environmental Guidelines Part 2, "6. Items Requiring Monitoring" p.24

Table 4-2: Outline of Monitoring Plan (Irrigation Project)

Subject	Monitoring Item	Monitoring Point	Frequency	Responsible Party
Air quality	SPM	2 points at head works and roadside	Once a month	Central government, Central Project Office of the Ministry of Agriculture
Water quality (during construction)	SS, DO, BOD, COD, E. coli, alkalinity	3 points in the river and channels	Once a month	Same as above
Water quality (after start of use)	In addition to the above, nitrogen, phosphorus, heavy metals, pesticide, DDT, etc.	9 points in the river, channels, and wells	4 times a year	Department of Natural Resource and Environment
Vegetation	Change in forest and deforestation	6 points on the hilly area	Once a year	Same as above
Communicable diseases (mosquito-borne)	Mosquito density, waterfront environment, immunity rate, morbidity rate	Irrigation site	Year-round (during construction and after start of use)	Same as above
Resettlement, settlement, land acquisition	Number of affected residents, status of compensation, status of livelihood recovery, farmland allocation, selection of settlers, complaint handling, budget execution, etc.	Target areas of resettlement, settlement and land acquisition	Twice a year during implementation	(Land acquisition) Land Acquisition Committee of the local administrative body (Monitoring) Conducted by Sub Project Office and PMU of the Department of Natural Resources and Environment under the supervision of the central government, Central Project Office of the Ministry of Agriculture

It was agreed at the time of appraisal that the implementation status of environmental monitoring and the progress of land acquisition procedures would be reported to JBIC in the progress report, etc. to be submitted by the parties responsible for monitoring specified above.

(Category B projects)

In Category B, environmental management plans and monitoring plans were also prepared, though not so detailed as those for Category A projects, for many projects for which EIA or IEE (Initial Environmental Examination), etc. were conducted under the domestic law (or voluntary conducted by the executing agency as the case may be)[44]. There is a certain country where even for the projects that do not require EIA and IEE under the domestic law, submission of the environmental management plan and monitoring plan are required.

Monitoring plans were prepared in cases where sufficient monitoring is deemed essential for the achievement of appropriate environmental and social considerations. For the projects that are likely to have small environmental impact or that involve small-scale land acquisition, monitoring is conducted when necessary under responsibility of the executing agency. In some cases of such projects, it was not confirmed under the survey whether the monitoring plan was prepared[45].

4.4.8. Achievement of Social Acceptability

Relevant Section of Environmental Guidelines

Projects must be adequately coordinated so that they are accepted in a manner that is socially appropriate to the country and locality in which the project is planned. For projects with a potentially large environmental impact, sufficient consultations with stakeholders, such as local residents, must be conducted via disclosure of information from an early stage where alternative proposals for the project plans may be examined. The outcome of such consultations must be incorporated into the contents of the project plan.

(Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" [Social Acceptability and Social Impacts] p.14)

(Common to all categories)

In order to ensure appropriate environmental and social considerations, JBIC places importance on dialogue with stakeholders and pays regard to the opinions and wishes of local residents through consultations with local residents, etc. which are held when EIA is conducted or the land acquisition and resettlement plan is prepared, and properly confirms through the borrower and executing agency that adequate coordination has been made to obtain the residents' consensus on the project and the compensation policy for affected residents through an appropriate process.

[44] 57 projects ouf of 81 Category B projects

[45] Please refer to Annex 1

(Category A projects)

When conducting EIA, etc., the executing agency holds consultations with stakeholders such as local residents, resident representatives, local governments, NGOs at the project site, and explains the outline of the project, potential environmental impact, social impact including the outline of land acquisition, schedule, etc. using written materials prepared in the local official language or widely used language. In every project, consideration has been made not to limit participants to only local governments and resident representatives by publicizing announcements via mass media and local representatives so that stakeholders carrying out activities in local communities and the areas to be affected would widely participate.

In some countries or projects[46], in order to realize residents participation in the project from an early stage of preparing the EIA report, in accordance with the domestic law, information disclosure and group consultations mainly with resident representatives and local governments are carried out during the scoping process (identification of needs, study on impact items and assessment methods, examination of alternative proposals, scheduling, etc.) prior to the preparation of the EIA report and the results are reflected in TOR of the EIA report[47]. For the projects surveyed, consultations with stakeholders actually took place during the process of EIA or at the completion of the draft report rather than at an early stage of TOR preparation. JBIC pays attention so that a basic consensus will be reached among residents on the implementation of the project through the executing agency via consultations with stakeholders, etc. by the time of the appraisal, at the latest. If a consensus has not been confirmed by such time, JBIC makes it so that social acceptability will be reached properly at an early stage before the execution of the loan agreement as part of the terms of agreement at the time of appraisal.

In some cases, as described in the example below, the comments obtained in consultation meetings with residents were reflected in the EIA report. In India, public hearings were held instead of consultations with residents.

---

[46] India : “Hussain Sagar Lake and Catchment Area Improvement Project”, Indonesia : “Ulubelu Geothermal Power Plant Project”, “Tanjung Priok Access Road Construction Project (I)”, “Tanjung Priok Access Road Construction Project(II)”, “Asahan No.3 Hydroelectric Power Plant Construction Project”, “Integrated Water Resources and Flood Management Project for Semarang” and “Peusangan Hydroelectric Power Plant Construction Project”, Senegal : “Road Improvement and Transport Facilitation Program on the Southbound Bamako-Dakar Corridor under EPSA for Africa”, Tanzania :“Arusha-Namanga-Athi River Road Development Project”, Pakistan : “Indus Highway Construction Project (III)”, Mozambique : “Montepuez-Lichinga Road Project”

[47] In Environmental Guidelines Part 2, “2. EIA Reports for Category A Projects” p.17, it is stipulated that consultations with relevant stakeholders, such as local residents, should take place if necessary throughout the preparation and implementation stages of a project. Having consultations is highly desirable, especially when the items to be considered in the EIA are being selected, and when the draft report is being prepared. There are cases in Indonesia where it has been decided in conducting EIA to hold consultations with residents at the time of TOR preparation and assessment stage of EIA.

Regarding the land acquisition and resettlement plan, consideration is made to achieve social acceptability through the process of having consultations with affected residents as many times as necessary separately from consultations about EIA[48].

In this way, confirmation of whether sufficient coordination has been done to gain consensus in a socially acceptable manner was properly performed for all Category A projects.

(Category B projects)

In Category B, too, for the projects for which surveys on environmental impact assessment such as EIA and IEE, etc. were conducted under the domestic law, it was confirmed under the survey that a process to achieve consensus in a socially acceptable manner has been carried out in conducting such surveys through information disclosure[49] and consultations with residents. In some cases where the scale of land acquisition, impact during construction, or the adverse impact of anti-pollution measures is relatively small, such confirmation was made not through consultations with residents but by a socioeconomic survey[50] in the form of interviews with affected residents or a survey by JBIC.

(Example 1) Road project (1)

From the scoping stage of EIA, group consultations with representatives of local residents and local governments were held in areas along the roads covered by the project and TOR of EIA was decided. Then, at the implementation stage of EIA, explanatory meetings were held for local residents along each road. In the meetings, discussions about 1) alternative proposals (adoption of a proposal to improve bypass roads in order to reduce the number of residents subject to resettlement), 2) impact of dust, etc. during construction, and 3) traffic safety measures and 4) exchange of opinions regarding compensation with the participants took place. At the public hearing for the preparation of the draft EIA report, which was held with prior notification and the collection of comments from local residents, the contents of the project and potential environmental impact were explained to representatives of local residents, provincial government officials concerned, citizens organizations, news media, experts, etc. and opinions were exchanged with the participants concerning the environmental standards such as air quality standards to be applied, impact on cultural heritages, compensation for land acquisition and resettlement, etc. Thus, it was confirmed that there was no particular objection to the implementation of the project. (Pakistan : “Indus Highway Construction Project (III)”)

---

[48] Such consultations may be held at the same time with the consultations about EIA, as necessary.

[49] In India, it is not obligatory to hold public consultations with local residents, while information disclosure is required in conducting EIA.

[50] Including residents’ awareness towards the project and their requests, etc.

(Example 2) Road project (2)

In the preparation process of the Environmental and Social Impact Assessment (ESIA) report, a resident consultation meeting was held for stakeholders, in addition to the interview survey conducted in villages at 14 locations along the roads covered by the project and focus group consultations. At the consultation meeting, following proposals were made and discussed: 1) to cooperate with NGOs in measures against HIV/AIDS; 2) to construct sidewalks in central areas of villages; and 3) to put up signs where livestock or wild animals cross the road. These proposals were reflected in the project (Tanzania : "Arusha-Namanga-Athi River Road Development Project")

(Example 3) Waste treatment project

Through consultations with residents for the preparation of the EIA report, basic consensus on the project was obtained. However, regarding the waste collection and treatment component, it was found that 30–40% of local residents expressed concerns about potential adverse impact on their lives, even though they understood the need of the project. Therefore, it has been decided to have further consultations with residents in developing an environmental management plan and, based on the results, confirm that the consensus of residents has been reached. (Viet Nam : "Hai Phong City Environment Improvement Project (I)")

This is a case that the process to achieve social acceptability among stakeholders including local residents needs to be continued even after the execution of the loan agreement.

4.4.9. Land Acquisition and Involuntary Resettlement

Relevant Section of Environmental Guidelines

People to be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported by the project proponents, etc. in timely manner.

The project proponents, etc. must make efforts to enable the people affected by the project, to improve their standard of living, income opportunities and production levels, or at least to restore them to pre-project levels.

Appropriate participation by the people affected and their communities must be promoted in planning, implementation and monitoring of involuntary resettlement plans and measures against the loss of their means of livelihood.

(Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" [Involuntary Resettlement] p.15)

For projects that will result in large-scale involuntary resettlement, basic resettlement plans must be submitted.

(Environmental Guidelines Part 1, "4. Procedures for Confirmation of Environmental and Social Considerations", (3) Environmental Review for Each Category, p.8)

(Common to all categories)

If resettlement and land acquisition are necessary in implementing a project, due procedures are carried out according to domestic laws of the host country[51] such as the land acquisition law. For a project involving large-scale land acquisition and resettlement, a land acquisition and resettlement plan is developed by the executing agency as part of or separately from the EIA report, and land acquisition, resettlement, payment of compensation, etc. are carried out according to such plan. JBIC examines details of such plan at appraisal, etc. and confirms that appropriate compensation would be provided to affected residents in a timely manner.

(Category A projects)

For all category projects, the contents of compensation and support have been examined and confirmed after checking against domestic procedures (they may vary depending on the land acquisition law and detailed enforcement regulations of the host country).

For residents who will lose income opportunity and low-income group, various livelihood recovery support is provided.

(Examples of livelihood recovery support)

- Monetary support for vocational training
- Financing support (low-interest business loans)
- Preferential employment in the construction work of the project and technical guidance to improve construction techniques for that purpose
- Monetary support to affected residents who are disabled or recognized as socially vulnerable

With respect to illegal residents, many countries including Indonesia, India and Vietnam do not have rules for compensation to such residents, while those for legal residents are in place under the land acquisition law, etc. Practically, however, compensation or partial benefits are provided

[51] Including regulations set by local government, as appropriate.

according to the degree of legality of the land and building based on the government policy or depending on the situation.

(Examples of compensation and support for illegal residents)

- Monetary compensation for other properties than land and payment of the cost of resettlement (dam project and power generation project) [52]
- Provision of construction material, subsidies for the cost of resettlement and transfer of school for children, and support for finding income opportunities (road project)[53]
- Provision of land ownership for value at the resettlement site and support for resettlement (railway project)[54]
- Payment of about 60% of full compensation and low-interest financing (water supply and sewerage project)[55]
- Preferential employment in the construction work (railway project)[56]
- Grant of right to purchase a new lot of land at a low price (use of installment and small-scale financing system, etc.) (urban community infrastructure project)[57]

Also, in many cases, consultation services and objection system concerning the implementation and monitoring of land acquisition and resettlement are established to encourage participation of the community.

In some cases, the contents of the land acquisition and resettlement plan confirmed at the time of appraisal were reconfirmed at the time of monitoring after the development of a detailed resettlement plan containing such information as the accurate number of residents affected, amount of compensation, conditions of the resettlement site, etc. at the detailed design stage after conclusion of the Loan Agreement and the start of the project. Usually, compensation and resettlement costs are covered by the national budget of the host country. However, there are cases where the support for

[52] Indonesia : “Integrated Water Resources and Flood Management Project for Semarang”, Viet Nam: “Ninh Binh II Thermal Power Plant Construction Project(I)”and “Ninh Binh II Thermal Power Plant Construction Project(II)”

[53] Indonesia : “Tanjung Priok Access Road Construction Project(I)” and “Tanjung Priok Access Road Construction Project(II)”

[54] India : “Delhi Mass Rapid Transport System Project (Phase 2)(I)” and “Delhi Mass Rapid Transport System Project Phase 2 (II)”

[55] Viet Nam : “Hai Phong City Environment Improvement Project (I)”

[56] Viet Nam : “Ho Chi Minh City Urban Railway Construction Project (Ben Thanh - Suoi Tien Section (Line 1)) (I)”

[57] Morocco : “Urban Areas Living Environment Improvement Project”

infrastructure development in the resettlement site is covered by the ODA loan (urban community infrastructure project)[58].

In this way, this item has been properly observed and implemented in all Category A projects.

(Category B projects)

As Category B projects do not include large-scale land acquisition and involuntary resettlement, a land acquisition plan and resettlement plan are not made in many cases. However, it was confirmed under the survey that compensation and support are provided to affected residents by the executing agency under the domestic law and detailed enforcement regulations.

4.4.10. Social Concerns

Relevant Section of Environmental Guidelines

Environmental impact to be investigated and examined includes factors that impact human health and safety as well as the natural environment, such as: air, water, soil, waste, accidents, water usage, ecosystems, and biota. Social concerns include: involuntary resettlement of the population, the indigenous people, cultural heritage, landscape, gender, children's rights and communicable diseases such as HIV/AIDS and impact that may lead to trans-boundary and global environmental problems.

(Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" [Scope of Impact to be Examined] p.14)

Appropriate consideration must be given to vulnerable social groups, such as women, children, the elderly, the poor, and ethnic minorities, all of whom are susceptible to environmental and social impact and who may have little access to the decision-making process within society.

(Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" [Social Acceptability and Social Impacts] p.15)

When a project may have adverse impact on indigenous peoples, all of their rights in relation to land and resources must be respected in accordance with the spirit of the relevant international declarations and treaties. Efforts must be made to obtain the consent of indigenous peoples after they have been fully informed.

(Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" [Indigenous Peoples] p.15)

[58] Viet Nam : "Hai Phong City Environment Improvement Project (I)"

Confirmation of the implementation status of the items included in the scope of impact to be investigated and examined as specified in the Environmental Guidelines was performed mainly in regard to gender considerations, measures against HIV/AIDS, and considerations for ethnic minorities and indigenous peoples.

(Common to all categories)

1) Gender Considerations

In order to promote the review of a project plan from a gender perspective, JBIC examines the situation of gender disparities in the project area, potential gender impact of the project, consideration items, etc. throughout the process from the loan request to appraisal and, when necessary, conducts monitoring after the execution of the loan agreement.

Table 4-3 Examples of Gender Considerations

Major Sector	Gender Considerations Incorporated in the Project Implementation Plan
Roads	・ At least a certain portion of the employment of workers in road construction and maintenance is allocated to women to secure the employment of women. ・ A campaign to encourage the participation of women in the traffic safety education program is conducted.
Forestry	・ Self-help groups are organized mainly by women to practice livelihood improvement activities. ・ When nearby residents are employed for tree or grass planting, poor residents and women who wish to provide labor are employed preferentially. ・ In practicing joint forest management, the superior committee includes at least a certain number of women as its members.
Policy System Improvement	・ Gender considerations are included in the reform items.
Strengthening Administrative Management, Education	・ Considerations are given so that equal opportunities for men and women are ensured in the process of selecting students eligible for scholarships.
Small-scale Irrigation, Rural Community Infrastructure	・ In the activities of water users associations and poverty reduction promotion measures, an environment to facilitate participation of women is established by creating opportunities to hear opinions from women's groups and providing training to women as part of the considerations to reflect the needs of women. ・ Based on the "women participation promotion strategy" for the project, the participation of women's groups in the village- and county-level decision-making meetings is encouraged.

2) Measures against HIV/AIDS

As examined in the secondary and cumulative impact section above (4.4.2. Impact Analysis), in ODA loan-financed projects, the incorporation of measures against HIV/AIDS in infrastructure development projects has been promoted.

(Implementation system of the HIV/AIDS program)

The generally used system to implement measures against HIV/AIDS in ODA loan-financed projects is to implement HIV/AIDS preventive measures as part of an agreement with contractors who are engaged in the construction work. In these cases, JBIC encourage the executing agency and the ministry in charge of health of the host country to jointly take HIV/AIDS preventive measures in cooperation with regional organizations while utilizing NGOs experienced in such measures. In many projects requiring HIV/AIDS measures, TOR of the consultants hired for an ODA loan project includes the monitoring and coordination of HIV/AIDS measures. Among the projects surveyed, HIV/AIDS preventive measures are implemented in such system as described above in 23 out of 28 Category A projects and nearly half of 81 Category B projects.

(Examples)

- Road project: As the improvement of traffic in the project area is expected to result in an increase in the infection rate, HIV/AIDS measures targeting construction workers and local residents will be implemented through the consultant services of the project. (Tanzania : “Arusha-Namanga-Athi River Road Development Project”)
- Port project: As workers engaged in the project are expected to include migratory workers who live alone, a high risk of HIV infection is predicted. Therefore, an NGO will be hired to conduct HIV preventive activities targeting workers engaged in the project.(India : “Visakhapatnam Port Expansion Project”)
- Power plant construction project: As this is a large-scale construction project in a county where there is concern for the spread of HIV infection, steps will be taken such as obliging the contractors to implement HIV/AIDS measures targeting construction workers.(Viet Nam : “Nghi Son Thermal Power Plant Construction Projhect(I)”)

3) Considerations for Ethnic Minorities and Indigenous Peoples

From the early stage of project formation, the potential impact on ethnic minorities and indigenous peoples is examined through the executing agency and, if any impact is likely to be caused, it is confirmed that considerations for ethnic minorities and indigenous peoples are properly undertaken in accordance with domestic law, etc. Among the projects surveyed, in many projects in the countries

where many indigenous peoples and ethnic minorities reside such as African countries, China, Vietnam and India, implementation of social consideration has been confirmed.

(Examples)

- Afforestation project: 1) One of the conditions for selecting the project area is that many members of designated tribes with a high proportion of the poor reside in such area (on the basis of comparison with the provincial average, etc.). 2) In implementing the project, in accordance with domestic law concerning the protection of the rights of designated tribes, social considerations are given so that designated tribes can participate in the Village Forest Committee (a participatory forest management plan). (India: "Orissa Forestry Sector Development Project", "Tripura Forest Environmental Improvement and Poverty Alleviation Project" and "Gujarat Forestry Development Project Phase 2")

- Irrigation project: In accordance with the domestic law concerning the protection of ethnic minorities, preferential treatment is given such as the subsidy for farmland acquisition and settlement. In the planning of resettlement or settlement, an interview survey is conducted on the tribes concerned and special considerations (including religious considerations) are made in the allocation of residences, etc. (Viet Nam : "Phan Ri - Phan Thiet Irrigation Project")

- Afforestation project: Considerations for ethnic minorities and indigenous peoples living in the project area are undertaken in compliance with the ethnic minorities protection law. (China: "Eco-environmental Construction and General Treatment Project of the Yangtze Upper Reaches in Sichuan Province" and "Henan Province Afforestation Project")

- Road project: In consideration of the protection of the regional and socioeconomic culture of each ethnic minority group living in the project area, measures to deal with changes in customs and ethics that are expected to be caused by a concentration of commercial and social activities in the area around the border checkpoint and educational activities for the prevention of communicable diseases will be conducted for each stakeholder (Senegal : "Road Improvement and Transport Facilitation Program on the Southbound Bamako-Dakar Corridor under EPSA for Africa")

4) Considerations for Other Vulnerable Social Groups

For large-scale railway projects such as urban rapid transit railways[59], etc., it was confirmed under the survey that, in accordance with domestic law concerning considerations for disabled people, station facilities will be designed to support the elderly, disabled people, etc. (elevator, toilet, announcement system, textured paving block, spaces for wheelchairs, etc.).

[59] India : "Delhi Mass Rapid Transport System Project Phase 2 (II)", Viet Nam : "Ho Chi Minh City Urban Railway Construction Project (Ben Thanh - Suoi Tien Section (Line 1)) (I)"

4.4.11. Implementation Status of Monitoring

Relevant Section of Environmental Guidelines

JBIC in principle confirms through the borrower over a certain period of time, the results of monitoring the items which have a significant environmental impact by the project proponents. This is in order to confirm the project proponents' undertaking of environmental and social considerations for category A and B projects.

(Environmental Guidelines Part 1, "4. Procedures for Confirmation of Environmental and Social Considerations", (4) Monitoring, p.9)

It is desirable that project proponents make the results of the monitoring process available to project stakeholders.

(Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" [Monitoring] p.16)

(Common to all categories only)

At the time of appraisal, JBIC agrees with the host government that the results of monitoring concerning the progress of the project including the items which have significant environmental impact will be confirmed for a certain period of time following the execution of the loan agreement through the executing agency. The monitoring results of the items of significant environmental impact are confirmed by the progress report submitted by the executing agency and information exchange with the executing agency.

Since most projects surveyed are those for which loan agreement was executed in 2005 or after and the main construction work has not started, monitoring concerning anti-pollution measures and the natural environment has not started yet. However, procedures for land acquisition or resettlement are being implemented in many cases and the progress of such procedures is confirmed by the Development Assistance Department in charge and the representative office through the executing agency, etc.

(Example) Railway project (India : "Delhi Mass Rapid Transport System Project (Phase 2)(I)")

The following reports have been made regarding the progress of implementation of the land acquisition and resettlement plan through the executing agency.

- Results of the initial inventory survey of residents subject to land acquisition and resettlement (social and economic situation, land ownership, property holding, attitude towards resettlement and compensation, etc.)
- Report on the progress of land acquisition
- Report on the maintenance conditions of the resettlement site and the status of resettlement (number of households, etc.)

Also it was confirmed under the survey that there are cases where the results of environmental or social monitoring are available to the general public[60].

4.4.12. Environmental Impact Assessment (EIA) Report

Relevant Section of Environmental Guidelines

When assessment procedures already exist in host countries, and projects are subject to such procedures, borrowers and related parties must officially complete those procedures and obtain the approval of the government of the host country.

EIA reports must be written in the official language or a language widely used in the country where the project is to be implemented. When explaining projects to local residents, written materials must be provided in a language and form understandable to them.

EIA reports are required to be made available in the country and to the local residents where the project is to be implemented. The EIA reports are required to be available at all times for perusal by project stakeholders such as local residents and that copying be permitted.

In preparing EIA reports, consultation with stakeholders, such as local residents, must take place after sufficient information has been disclosed. Records, etc. of such consultations must be prepared.

(Environmental Guidelines Part 2, "2. EIA Reports for Category A Projects" p.17)

(For Category B projects,) where an EIA procedure has been conducted (in the host country), the EIA report may be referred to, but this is not a mandatory requirement.

(Environmental Guidelines Part 1, "4. Procedures for Confirmation of Environmental and

[60] Indonesia : "Tanjung Priok Access Road Construction Project (I)"and "Tanjung Priok Access Road Construction Project(II)", Viet Nam : "New National Highway No. 3 and Regional Road Network Construction Project Section Hanoi-Thai Nguyen (I)", "Nhat Tan Bridge (Vietnam- Japan Friendship Bridge) Construction Project (I)", "Phan Ri - Phan Thiet Irrigation Project" and " Ho Chi Minh City Urban Railway Construction Project (Ben Thanh - Suoi Tien Section (Line 1)) (I)", Sri Lanka : "The Galle Port Development Project (I)", Pakistan : "Indus Highway Construction Project (III)", India : "Delhi Mass Rapid Transport System Project (Phase 2)(I)", "Delhi Mass Rapid Transport System Project Phase 2 (II)", "Bangalore Metro Rail Project" and "Hussain Sagar Lake and Catchment Area Improvement Project"

Social Considerations", (3) Environmental Review for Each Category, p.8)

(Category A projects)

With respect to procedures required for EIA, the status of approval by the EIA approval agency of the host government is confirmed when forming a project plan in reference to EIA-related laws and the procedures taken for the existing projects. For all Category A projects surveyed, it was confirmed prior to the execution of the loan agreement that EIA has been conducted and approved by the government of the borrowing country. For Category A projects[61]. for which EIA is not required under the domestic law, JBIC requires the executing agency to prepare an EIA report according to the Environmental Guidelines

Based on the principle of information disclosure which is usually mandatory under EIA-related laws, EIA reports must be written in the official language or a language widely used in the country where the project is to be implemented and opportunities for public hearings (to receive comments from the general public) must be provided (perusal and copying must be permitted). These requirements are met for all Category A projects as confirmed at the time of environmental review. Sufficient information disclosure prior to the preparation of EIA reports is performed through consultations with residents or public hearing when preparing TOR. In some cases, the results of such information collection are reflected in TOR as necessary.

Consultations with stakeholders such as local residents for the implementation of EIA for Category A projects are confirmed to have taken place, as already stated in "4.4.8. Achievement of Social Acceptability", at the time of preparation of EIA reports. Although records of consultations are not required to be attached to EIA reports in many countries, the results of consultations with residents have been examined for all Category A projects.

Considering the status of project preparation and the governments' capacity to prepare the EIA report, JBIC may provide support for executing agencies through JBIC's technical assistance[62].

(Category B projects)

[61] India : "Delhi Mass Rapid Transport System Project (Phase 2)(I)", "Delhi Mass Rapid Transport System Project Phase 2 (II)", "Bangalore Metro Rail Project" and "Hussain Sagar Lake and Catchment Area Improvement Project"

[62] Viet Nam : "New National Highway No.3 and Regional Road Network Project"

EIA is not a mandatory requirement for Category B projects. In the case where EIA was conducted under the domestic law of the host country, the EIA report was obtained and the contents were reviewed in detail.

4.4.13. Information Disclosure

Relevant Section of Environmental Guidelines

Prior to making decisions on funding and depending on the nature of the project, JBIC discloses information in principle at the timing and with the contents listed below. JBIC endeavors to disclose information in a manner that allows enough time before decisions are made on funding:

- Upon completion of the screening of a project, JBIC discloses, as soon as possible, the project name, country, location, an outline and sector of the project, and its category classification, as well as the reasons for that classification; and
- For Category A and Category B projects, JBIC publishes the status of major documents on environmental and social considerations by the borrowers and related parties, such as EIA reports and environmental permit certificates, etc. issued by the host government on the JBIC website, and promptly makes available the EIA reports etc.

After executing a loan agreement, JBIC provides the results of its environmental reviews of projects in Categories A, B and FI for public perusal on the JBIC website.

JBIC welcomes information provided by concerned organizations and stakeholders, so that it may consider a diverse range of opinions and information in its environmental reviews and supervision of projects. ... JBIC may also, when necessary, seek the opinions of concerned organizations and stakeholders. In addition to the aforementioned principles, if requested by third parties, JBIC will provide them with information regarding environmental and social considerations within its capacity to do so.

(Environmental Guidelines Part 1, “5. Disclosure of Information Regarding Confirmation of Environmental and Social Considerations by JBIC”, (1) Basic Principles, (2) Timing of Disclosure and Content of Disclosed Information, p.9–10)

(Common to all categories)

As part of information disclosure regarding environmental and social considerations, the project name, country, location, outline and sector of the project, and its category classification, as well as the reasons for that classification are disclosed. For Category A and Category B projects, the status of

major documents on environmental and social considerations by the borrowers and related parties, such as EIA reports and environmental permit certificates, etc. issued by the host government are published on the JBIC website, and the EIA reports etc. are made available to the public. For one project in Category B[63]and another in Category C[64], records of these information disclosure were not remained and such disclosure was not confirmed through hearings under the survey.

When it is confirmed that appropriate environmental and social considerations will be undertaken for a project, the results of the environmental review of such project are published on the JBIC website after the execution of the loan agreement. For ODA loan-financed projects, the results of environmental reviews are published in the form of ex-ante evaluation reports that includes statements regarding environmental and social considerations. Ex-ante evaluation reports were published for all projects.

Also, when requested by third parties, JBIC provides information regarding environmental and social considerations as necessary.

4.4.14. Hiring of Experts

Relevant Section of Environmental Guidelines

JBIC may, when necessary, conduct surveys of proposed project sites by dispatching environmental experts to confirm environmental and social considerations.

JBIC may, when necessary, seek and make use of opinions from outside experts.

(Environmental Guidelines Part 1, "3. Basic Principles Regarding Confirmation of Environmental and Social Considerations", (3) Information Required for Confirmation of Environmental and Social Considerations, p.5)

(Common to all categories)

For Category A projects except for phased projects and some co-financing projects, the staff in charge at the Environmental Analysis Department participated in the field survey at the time of appraisal. If necessary, confirmation of environmental and social considerations (including review of the appropriateness of category classification, etc.) is performed with external experts at the stage of project formation or appraisal, etc. Not only Japanese experts but also local experts are hired in some cases.

[63] Cambodia : "Sihanoukville Port SEZ Development Project (E/S)"

[64] Tanzania : "Fourth Poverty Reduction Support Credit"

Also, in cooperation with local autonomous bodies, NGOs and universities in Japan, JBIC sends experts specialized in the field of the environment to the project site to make suggestions through research etc., engage in educational activities such as seminars, and provide technical guidance. Examples of cooperation with Japanese local autonomous bodies and universities are summarized below.

(Examples)

- Water supply and sewerage project: Studies on the use of reclaimed water in the area covered by the project were conducted in cooperation with a university (including a study on the degree of expected mitigation of water demand to be achieved by the use of reclaimed water and a study on the conversion of water resources that is expected to be brought about by subsidence prevention measures and the increase in the usage rate of reclaimed water). (China : "Ningxia Water Environmental Improvement Project")
- Sewerage project: Experts in sewerage from universities accompanied the appraisal mission and made suggestions regarding the operational and technical aspects of sewerage services. A training program on the same topic was also provided by a local autonomous body. (China : "Guiyang Environmental Improvement Project")
- Atmospheric environment improvement project: Experts from universities, etc. accompanied the appraisal mission and made suggestions regarding air pollution measures. A training program on the same topic was also provided. (China : "Baotou Atmospheric Environmental Improvement Project")
- Sewerage and sanitation improvement project: A workshop was held at the project site about river-basin sewerage development projects and environmental education carried out by local autonomous bodies. (India : "Ganga Action Plan Project (Varanasi)")
- Afforestation and forest management project: In the Special Assistance for Project Formation (SAPROF) study, project planning for the formation of coastal disaster prevention forests was conducted in cooperation with local autonomous bodies and universities that had experience in earthquake tsunami disasters. (India : "Orissa Forestry Sector Development Project")

4.4.15. Environmental Costs, etc.

Relevant Section of Environmental Guidelines

Such examination must include analysis of environmental costs and benefits in as quantitative terms as possible and be conducted in close harmony with economic, financial, institutional, social and technical analysis of the project.

(Environmental Guidelines Part 2, "1. Environmental and Social Considerations Required for Funded Projects" [Underlying Principles] p.13)

JBIC carries out environmental reviews in strict conjunction with its financial, economic and technical review of projects.

(Environmental Guidelines Part 1, "3. Basic Principles Regarding Confirmation of Environmental and Social Considerations", (2) Confirmation of Environmental and Social Considerations by JBIC, p.5)

(Environmental Costs)

Environmental costs consist of expenses of the implementation of environmental conservation measures (internal costs) and environmental and social costs (external costs) which are difficult to convert into monetary value. Regarding the internal costs, the following costs are examined usually when EIA is conducted in the process of drawing up an environmental management plan and environmental monitoring plan.

1) Cost related to environmental mitigation

2) Cost related to environmental monitoring (including social considerations)

3) Cost of technical guidance and training regarding environmental monitoring

4) Compensation cost associated with land acquisition and resettlement

In addition to the above-listed costs, for ODA loan-financed projects, the cost of environmental consultants hired with an ODA loan is included in the internal costs. For the projects surveyed, the costs 1) – 3) above are included in the cost of the main construction work or the cost of consultants in many cases. The compensation cost, etc. for land acquisition described in 4) is in principle covered by the government budget of the borrowing country.[65]

The external costs are quantified using the market price which is referred to in the comparison of alternative proposals, or by the shadow price method, survey methods (WTP [willing to pay], WTAC [willing to accept compensation]), etc. in many cases. However, as these costs are difficult to quantify, detailed analysis is rarely conducted.

(Environmental Benefits)

[65] There is a case where the project includes large-scale land acquisition and resettlement, in order to support resettlement of affected residents, infrastructure development of the resettlement site is included in the project components funded with ODA loans. （Viet Nam : "Hai Phong City Environment Improvement Project (I)"）

Analysis of environmental benefits includes:

1) Utilization of environmental and social benefits as the basis for calculating Internal Rate of Return (EIRR)

2) Establishment of operation and effect indicators to measure the effects of environmental improvement and social development

In calculating the EIRR of the projects surveyed, the following effects, for example, were countered as benefits: the soil runoff prevention effect and income increase effect as a result of income increasing activities of forest conservation projects[66]; the pollution reduction effect of railway projects[67]; the CO_2 reduction effects of solid waste management project[68]; decrease in soil erosion damage in river project[69]; and the economic effect (enhanced willingness to pay water and sewerage charges) generated by the water quality improvement effect of sewerage project[70] (indirect benefit).

The table below shows major operation and effect indicators for the measurement of environmental improvement and social effects established for the projects surveyed by sector.

Table 4-4: Major Environmental Indicators (for Projects Surveyed)

Sector	Operation and Effect Indicator (Example)
Electric Power (Power Generation)	Amount of CO_2 reduction, amount of SO_2 reduction, amount of dust reduction
Afforestation	Afforestation area, quantity of planting, survival rate, land area where soil erosion and flood inundation damage decreases, beneficiaries' income increase rate, number of jobs created, number of village development plans
Water Supply	Water quality (turbidity, chromaticity)
Sewerage	BOD and SS concentration (inlet, outlet), amount of wastewater treated, water quality of streams receiving discharge (BOD, SS and E.coli), number of cases of water-borne infections
Public Health and Medicine	Number of hospital-acquired infection cases, number of outpatients with conditions related to obstetrics and gynecology
Railways	Reduction of traffic accidents, pollution mitigation effect

[66] India : "Tripura Forest Environmental Improvement and Poverty Alleviation Project"and "Gujarat Forestry Development Project Phase 2", China : "Eco-environmental Construction and General Treatment Project of the Yangtze Upper Reaches in Sichuan Province", "Henan Province Afforestation Project"and "Jilin Afforestation Project"

[67] India : "Delhi Mass Rapid Transport System Project (Phase 2)(I)", "Delhi Mass Rapid Transport System Project Phase 2 (II)" and "Bangalore Metro Rail Project"

[68] India : "Kolkata Solid Waste Management Improvement Project"

[69] India : "Swan River Integrated Watershed Management Project"

[70] India : "Ganga Action Plan Project (Varanasi)"

4.5 Trends by Sector and Analysis

Next, the projects surveyed are classified by sector and, for each sector, there is an (1) overview (breakdown by category), (2) the points of attention for environmental and social considerations[71] are summarized, and then (3) the implementation status of the Environmental Guidelines regarding these points is analyzed.

4.5.1. Electric Power and Gas

Among the 27 projects surveyed, 13 are power plant projects, 10 are projects for transmission lines and distribution systems, 3 are other projects in the sector of electric power and gas, and 1 is a gas project[72]. In this sector, analysis is made on the power plant projects and the projects for transmission lines and distribution systems that occupy the most part of this sector.

4.5.1-1 Power Plants

(1) Overview

The 13 projects surveyed are classified into 6 Category A projects and 7 Category B projects. Of Category B, 2 cases are engineering service loans. Among the 13 projects surveyed, 5 are for thermal power generation, 5 are for hydroelectric power generation, 2 are for geothermal power generation, and 1 is for solar power generation[73]. They are roughly divided into thermal and geothermal power generation projects and hydroelectric power generation projects in the following analysis.

(2) Points of Attention for Environmental and Social Considerations

The followings are the points of attention for environmental and social considerations characteristic of this sector which are based on the nature of the projects.

1) Thermal and geothermal power generation projects

- Anti-pollution measures: Attention should be paid to whether air pollutants such as sulfur oxide (SOx), nitrogen oxide (NOx), soot and dust, etc. emitted by power plant operation as well as whether treatment of wastewater and wastes comply with the country's emission standards and other standards, and whether the noise and vibration generated by the operation comply with the country's standards. For coal-fired power generation facilities, fugitive coal dust, dust, and leachates from coal piles and coal ash disposal sites also need to be taken into account. For geothermal power generation facilities, attention should be paid to whether air

[71] See mainly Environmental Guidelines Reference Material. "Environmental Checklists" p.30–131

[72] Please refer to Annex 2(1)

[73] Please refer to Annex 2(1)

pollutants such as hydrogen sulfide comply with the country's standards and whether water pollution by arsenic or mercury, etc. occurs.

- Social impact: It should be examined whether the implementation of the project will result in involuntary resettlement and, if involuntary resettlement is required, efforts need to be made to minimize the impact of resettlement. Attention should be paid to the development of a proper resettlement plan, organizational framework to properly implement the resettlement plan and monitoring of the impact of resettlement.

- Impact during construction: It needs to be examined whether adequate measures are considered to reduce impact during construction (noise, vibration, turbid water, dust, exhaust gases, and wastes). Attention should be paid to whether the construction activities will adversely affect the natural environment (ecosystem) and social environment and to whether adequate measures are considered to reduce the impact. Also, attention should be paid to whether health and safety education (e.g., traffic safety, public health) will be provided to workers, etc. if necessary.

2) Hydroelectric power generation projects

- Anti-pollution measures: Attention should be paid to whether water quality of dam ponds/reservoirs and the quality of discharged water comply with the country's standards and whether adequate measures to prevent water quality degradation in the dam pond/reservoir concerned caused by clearance of woods will be planned. Also, attention should be paid to the flow rate and water quality of downstream rivers.

- Ecosystem: It should be examined whether the project will adversely affect downstream aquatic organisms, animals, plants, and ecosystems and whether structures such as dams will block the movement of the migratory fish species.

- Living and livelihood: Regarding adverse effects of the project on the lives of residents, attention should be paid to the down-stream land use, water traffic and water area uses by local residents, and maintenance of downstream water uses. Incidence of water-borne or water-related diseases should also be examined.

(3) Implementation Status

For each item of the Environmental Guidelines, environmental and social considerations were mostly undertaken. There are many large-scale projects in this sector including phased project[74]. For

[74] Viet Nam : "Ninh Binh II Thermal Power Plant Construction Project(I)"

the second and subsequent phases of the same project, the updated information on environmental and social considerations was examined when making decisions[75].

The implementation status of environmental and social considerations regarding the above-mentioned points of attention is as described below.

1) Thermal and geothermal power generation projects

- Anti-pollution measures: For thermal power plant construction projects[76], it has been confirmed that appropriate anti-pollution measures will be taken as follows: (a) air quality: treatment of exhaust gas by the installation of an exhaust gas desulfurizer, low-NOx burner and electrostatic dust precipitator, and measures to reduce fugitive coal dust and coal ash from coal piles, coal transportation facilities, and coal ash disposal sites; (b) water quality: treatment of leachates from coal ash disposal sites, examination of the potential impact of thermal effluent and proper treatment in compliance with the domestic standards; (c) waste treatment: effluent leakage prevention measures at coal ash disposal sites and proper treatment of waste oil and dredged soil generated by port development; and (d) noise and vibration: installation of dampers on equipment and soundproof walls, and maintaining of a certain distance from residential areas. For one geothermal power plant construction project[77], emission of hydrogen sulfide into the air was examined and confirmed to be expected to meet the domestic emission standards. Regarding water pollution, it has been confirmed that the used groundwater is planned to be returned underground and therefore no impact will be caused on nearby rivers and surface groundwater.

- Social impact: It was found that 2 Category A projects involve large-scale involuntary resettlement[78]. For both projects, the basic resettlement plan has been developed and the resettlement schedule, contents of compensation, resettlement site, handling of illegal residents, etc. have been confirmed. The resettlement plan was settled on in consultation with the local government representatives and explanation to residents was made at the consultation meeting with residents.

- Impact during construction: It has been confirmed that measures will be taken for dust and exhaust gases, noise and vibration, water quality, soil, wastes, etc. including water sprinkling, placement of covers on trucks, etc., speed restrictions for trucks and time restrictions for the

[75] Viet Nam : “Ninh Binh II Thermal Power Plant Construction Project(II)”

[76] Viet Nam : “Ninh Binh II Thermal Power Plant Construction Project(I)”, “Ninh Binh II Thermal Power Plant Construction Project(II)” and “Nghi Son Thermal Power Plant Construction Project(I)”

[77] Indonesia: “Ulubelu Geothermal Power Plant Project”

[78] Viet Nam : “Ninh Binh II Thermal Power Plant Construction Project(I)” and “Nghi Son Thermal Power Plant Construction Project(I)”

work using equipment that cause large noise, and that safety measures for workers and education programs on sanitation and safety will be carried out.

2) Hydroelectric power generation projects

- Anti-pollution measures: For all projects surveyed, EIA was conducted and environmental impact and mitigation measures were studied. Regarding water quality, changes in flow rate at the intake and water-reduction sections caused by the change in the stream direction for power generation purposes, potential impact on the quality of river water and detention time in the reservoir were studied and necessary measures have been taken. In addition, monitoring of water quality is planned to be conducted after the start of operation. As earth and sand from excavation and dredged soil are expected to be generated, it has been confirmed that they will be properly disposed of after studying the possibility of the pollution of waste earth and sand and dredged soil.

- Ecosystem: For Category A projects, impact on the terrestrial ecosystem (vegetation and wild life) and the aquatic ecosystem have been confirmed. For one hydroelectric power generation project[79], it was confirmed through the interview with local residents whether the project site is located within the distance from wild life habitats that is short enough to give impact. In another hydroelectric power generation project[80], it is possible that aquatic organisms, animals, plants, and the ecosystem may be affected if the project causes water quality degradation. Therefore, it has been confirmed that measures to prevent degradation of water quality will be taken by putting up notice boards prohibiting waste dumping and by distributing waste containers to local villages.

- Living and livelihood: As the change in the stream direction for the purpose of power generation is expected to cause flow reduction in some river sections, potential impact on the supply of irrigation water was studied for Category A projects[81]. For each project, no significant impact is expected because the sufficient flow required for irrigation will be maintained. Even so, it is planned to improve irrigation intake facilities to cope with potential impact such as river flow reduction and water level decline. For the project that may cause adverse impact on the water used for the daily life of local residents, water supply facilities such as wells are planned to be installed in villages that are likely to be affected by water reduction[82].

---

[79] Indonesia : “Asahan No.3 Hydroelectric Power Plant Construction Project”

[80] Indonesia : “Peusangan Hydroelectric Power Plant Construction Project”

[81] Indonesia : “Peusangan Hydroelectric Power Plant Construction Project”and ”Asahan No.3 Hydroelectric Power Plant Construction Project”

[82] Indonesia : “Peusangan Hydroelectric Power Plant Construction Project”

4.5.1-2 Transmission Lines and Distribution Systems

(1) Overview

The 10 projects surveyed consist of 8 Category B projects and 2 Category C projects[83].

(2) Points of Attention for Environmental and Social Considerations

The followings are the points of attention for environmental and social considerations characteristic of this sector which are based on the nature of the projects.

- Impact on the natural environment: Attention should be paid to whether the project will affect national parks or protected areas designated by the country, whether the project site contains habitats of valuable species, whether measures to reduce impact on the ecosystem will be taken in the cases where significant impact is anticipated, and whether the development will result in destruction of forest areas, etc.
- Impact on the social environment: It should be examined whether the implementation of the project will result in involuntary resettlement. In the cases where involuntary resettlement is required, attention should be paid to whether proper considerations to minimize the impact of resettlement will be undertaken.

(3) Implementation Status

- Impact on the natural environment: Projects plans were developed from the viewpoint of environmental impact, taking into account the nature of the project and the fact that adverse impact on the environment can be minimized by selecting proper routes of transmission lines[84]. Through the examination of alternative proposal, such routes as to avoid or minimize tree clearing were selected. In one project, a route that did not pass through a dense forest was selected after the examination of alternative proposals[85]. However, as some tree clearing is expected, species of trees to be cut down and potential impact are being examined.
- Impact on the social environment: As measures to mitigate impact on the social environment, the routes of transmission lines are discussed so as to avoid or minimize land acquisition and resettlement. In the case of a transmission line project which is expected to result in resettlement, compensation for resettlement is planned to be provided according to the resettlement plan and, when conducting the detailed design (D/D) study, transmission routes

[83] Please refer to Annex 2(1)

[84] India : “Rural Electrification Project”, Indonesia : “North-West Sumatra Inter-connector Transmission Line Construction Project”

[85] Lao PDR : “Greater Mekong Power Network Development Project (Lao PDR)”

will be examined so that the number of households to be resettled will be reduced[86]. In another transmission line projects, educational activities for local residents subject to household electrification are implemented and considerations are given concerning the amounts to be borne[87].

4.5.2. Transportation

The 22 projects surveyed are classified into 16 Category A projects and 6 Category B projects including 3 cases of the engineering service loan[88]. This sector occupies approximately 60% of all Category A projects and is considered as a sector with large environmental and social impact. This sector is divided into the projects for roads, railways and bridges and the project for ports in the following analysis.

4.5.2-1 Roads, Railways and Bridges

(1) Overview

The 18 projects surveyed consist of 11 road projects (Category A: 9, Category B: 2), 6 railway projects (Category A: 4, Category B: 2), and one bride project (Category A)[89].

(2) Points of Attention for Environmental and Social Considerations

The followings are the points of attention for environmental and social considerations characteristic of this sector which are based on the nature of the projects.

1) Impact on the natural environment (ecosystem, etc.) and anti-pollution measures

- Anti-pollution measures: Attention should be paid to whether the air pollutants emitted from vehicle traffic, contamination of water sources such as groundwater by surface runoff from roads, and noise and vibration from vehicles and train traffic comply with the country's standards.
- Impact on the ecosystem: It should be examined whether the project will affect the protected areas and whether the project site contains ecologically valuable habitats. Attention should be paid to whether the project will result in disruption of the migration routes of wild animals and livestock and whether the road development will cause destruction of forest areas or poaching, etc.

---

[86] Lao PDR : "Greater Mekong Power Network Development Project (Lao PDR)"

[87] India : "Rural Electrification Project", Morocco : "Rural Electrification Project(III)"

[88] Please refer to Annex 2(2)

[89] Please refer to Annex 2(2)

2) Impact on the social environment

- Resettlement: It should be examined whether the implementation of the project will result in involuntary resettlement and, if involuntary resettlement is required, attention should be paid so that a resettlement plan will be developed and appropriate compensation will be provided.

- Explanation to residents and achievement of social acceptability: Attention should be paid so that the contents of the project and the potential impact will be adequately explained to local residents based on appropriate procedures including information disclosure and that understanding will be obtained. Regarding resettlement, attention should be paid so that agreement by residents to be resettled will be obtained prior to resettlement.

(3) Implementation Status

The implementation status of environmental and social considerations regarding the above-mentioned points of attention is as described below.

1) Impact on the natural environment (ecosystem, etc.) and anti-pollution measures

- Anti-pollution measures: Regarding air quality, noise and vibration after the roads are put into service, the impact of increase in traffic volume which is expected to be caused by the project was examined in light of domestic and international standards. In the case of road projects, as air pollutants are predicted to exceed the standard values, tree and grass planting, installment of dustproof walls and other measures are implemented[90]. During construction, installation of dustproof walls, water sprinkling, maintenance of construction equipment and materials and construction vehicles, and speed restrictions of construction vehicles are planned to be implemented. As noise and vibration control measures for railway projects, speed restrictions, installation of soundproof walls, soundproof pads and covering, installation of rubber pads, and proper maintenance of rails and wheels are planned to be implemented[91].

- Impact on the ecosystem: The existence of protected areas and habitats of valuable species was examined in the project site and surrounding areas and, if they do exist, it was examined whether the project has irreversible ecological impact. In the case of a road development project, the project area is not located in a protected area but a migration route of large mammals was found approximately 20 km from the project site[92]. Therefore, it was decided not to establish construction sites near this special corridor. In another case of a road

[90] Indonesia : “Tanjung Priok Access Road Construction Project (I)” and “Tanjung Priok Access Road Construction Project(II)”

[91] India : “Delhi Mass Rapid Transport System Project (Phase 2)(I)”,”Delhi Mass Rapid Transport System Project Phase 2 (II)” and “Bangalore Metro Rail Project”

[92] Mozambique : “Montepuez-Lichinga Road Project”

development project where the increase in road users and travelers is expected to cause increase in poaching and illegal collection, educational activities for local residents and drivers regarding conservation of the protect areas and crackdown measures are planned to be implemented[93].

2) Impact on the social environment

- Resettlement: For all Category A projects except for 2 projects that do not require resettlement[94], the resettlement plan or compensation policy has been settled. For the project involving large-scale involuntary resettlement, the resettlement action plan has been developed based on the socioeconomic baseline survey[95]. In the cases where illegal residents are included in the affected residents, appropriate support is planned to be provided to such illegal residents according to the government policy or consultation with the compensation committee.

- Explanation to residents and achievement of social acceptability: For the project surveyed, resident consultation meetings for local residents, commune representatives, local governments and autonomous bodies, private companies, NGOs, etc. were held and explanations about the project were given to residents on separate occasions. It was confirmed that the residents' understanding has been obtained for all Category A projects. For a railway project[96], after consultations with residents that took place several times in the project area, inspection of the project site with stakeholders was carried out. Then, explanation meetings on the contents of the project focused on resettlement were held in slums and also explanation meetings on the contents of the project and EIA for experts, NGOs and scholars were held. In addition, consultations with the operators of other modes of transportation were held and a certain level of understanding has been obtained.

In the cases where EIA is not required under the domestic law but the project is classified as a Category A project according to JBIC Guidelines, EIA was conducted by the borrowing country and environmental and social impacts were examined[97].

4.5.2-2 Ports

(1) Overview

---

[93] Tanzania : "Arusha-Namanga-Athi River Road Development Project"

[94] Guatemala : "ZONAPAZ Road Improvement Project", Tanzania : "Arusha-Namanga-Athi River Road Development Project"

[95] Viet Nam : "Nhat Tan Bridge (Vietnam- Japan Friendship Bridge) Construction Project (I)"

[96] India : "Bangalore Metro Rail Project"

[97] India : "Delhi Mass Rapid Transport System Project (Phase 2)(I)", "Delhi Mass Rapid Transport System Project Phase 2 (II)" and "Bangalore Metro Rail Project"

The 4 projects surveyed consist of 2 Category A projects and 2 Category B projects. One of the Category B projects is an engineering service loan[98].

(2) Points of Attention for Environmental and Social Considerations

1) Impact on the natural environment (ecosystem, etc.) and anti-pollution measures

- Anti-pollution measures: Regarding water quality, attention should be paid to whether adequate measures will be taken to prevent spills and discharges of oil, hazardous materials, etc. to the surrounding water areas, whether the project will cause variation of ocean currents and reduction in seawater exchange rates which result in changes in water temperature and water quality and, in the case where the project includes land reclamation, whether adequate measures will be taken to prevent contamination of surface water, seawater, and groundwater by leachates from the reclamation area. Also, it should be examined whether adequate measures will be taken to prevent sediment contamination by discharge or dumping of hazardous materials, etc. from ships and related facilities.

- Impact during construction: Attention should be paid so that adequate measures will be considered to reduce impact during construction (noise, vibration, turbid water, dust, exhaust gases, wastes, etc.) and that construction activities will not adversely affect the natural environment and the social environment.

2) Impact on the social environment

- Living and livelihood: Attention should be paid so that the project will not have negative impact on the lives of residents, especially negative impact on their livelihoods due to changes in water uses (including fisheries and recreational uses) in the surrounding areas, and that measures to reduce such impact will be taken if necessary.

(3) Implementation Status

1) Impact on the natural environment (ecosystem, etc.) and anti-pollution measures

- Anti-pollution measures: In a port development project, wastewater from water sprinkling in the port facilities, domestic wastewater and wastewater containing oil are expected to be discharged from the port facilities[99]. Therefore, it is planned to collect wastewater from water sprinkling in a settling tank and, after removing impurities, discharge supernatant water into the inner harbor. Domestic wastewater is planned to be reused after being treated in compliance with the domestic standards. The treatment and disposal of oil-containing

[98] Please refer to Annex (2)

[99] India : “Visakhapatnam Port Expansion Project”

wastewater is planned to be contracted out to a licensed waste disposal company. As dredging is planned for the expansion of the port, a sediment survey including a heavy metal survey was conducted. Although sediment of the outer harbor is not expected to be contaminated, sediment analysis will be conducted again when dredging is conducted in the project. The dredged soil to be generated from the construction work maintenance activities of the sea route under the project will be taken to an existing soil disposal site which is selected considering various conditions such as tidal current and water depth.

- Impact on the natural environment: In a port development project, additional simulations of the concentration distribution of floating matter to be caused by dredging were performed based on an NGO's opinion and it has been confirmed that there will be no impact on coral reefs[100]. After that, a study on the impact of a tsunami on the natural environment was conducted and it has been confirmed that no significant change will occur to the natural environment including coral reefs after a tsunami. In order to reduce the impact on the ecosystem, measures will be taken such as the creation of a buffer zone between the sea route and coral reefs and the construction of a breakwater to prevent extreme temperature changes in the bay.

2) Impact on the social environment

- Living and livelihood: Potential impact on the fishers engaged in fishing activities around the project site have been examined and, for the project which is likely to have impact, the policy and plan for the compensation for the decrease in fish catches (method of selecting fishers eligible for compensation, amount, method and schedule of compensation, etc.) have been developed based on the consultation with fishers[101].

4.5.3. Telecommunications

(1) Overview

The 4 projects surveyed consist of 3 Category B projects (communications) and one Category C project (broadcasting)[102].

(2) Points of Attention for Environmental and Social Considerations

The followings are the points of attention for environmental and social considerations characteristic of this sector which are based on the nature of the projects.

---

[100] Sri Lanka : "The Galle Port Development Project (I)"

[101] Sri Lanka : "The Galle Port Development Project (I)"

[102] Please refer to Annex 2(3)

- Impact on the natural environment: Attention should be paid to whether the project will affect national parks or protected areas designated by the country and, in the cases where significant impact on the ecosystem is anticipated, whether measures to reduce such impact will be taken.
- Impact on the social environment: It should be examined whether the implementation of the project will result in involuntary resettlement. In the cases where involuntary resettlement is required, attention should be paid to whether proper considerations to minimize the impact of resettlement will be undertaken.

(3) Implementation Status

Although the projects surveyed are for the development of infrastructure covering extensive areas, EIA is not required under the domestic laws of each county and the impact on the environment is small. For one project, selection of the cable route and the construction method are planned at the time of the detailed design (D/D) study, and then environmental and social impacts were going to be examined in order to take necessary measures[103]. For other 2 projects (Category B only), environmental and social impacts have been examined at the stage of project formation[104].

- Impact on the natural environment: In one project for the development of infrastructure for telecommunication services, the project area contains part of a protected area (national park)[105]. Alternative proposals such as the change of cable routes, use of existing transmission and distribution lines, use of wireless systems, etc. were considered and a project plan that can minimize the impact on the environment was developed.
- Impact on the social environment: It was confirmed that project plans do not include land acquisition and resettlement. In a telecommunication backbone development project, the cable routes are planned to be decided at the time of detailed design (D/D) so that land acquisition and resettlement can be avoided or minimized[106].

4.5.4. Irrigation and Flood Control

(1) Overview

[103] Cambodia : “Greater Mekong Telecommunication Backbone Network Project”

[104] Bangladesh : “Telecommunication Network Development Project”, Viet Nam : “Rural Community Internet Use Development Project”

[105] Viet Nam : “Rural Community Internet Use Development Project”

[106] Cambodia : “Greater Mekong Telecommunication Backbone Network Project”

The 10 projects surveyed consist of 2 Category A projects (large-scale irritation: 1, flood control: 1), 6 Category B projects (disaster prevention: 1, river basin conservation: 2, irrigation: 2, irrigation channel development: 1) and 2 Category FI projects (river basin conservation: 1, irrigation: 1).[107]

(2) Points of Attention for Environmental and Social Considerations

The followings are the points of attention for environmental and social considerations characteristic of this sector which are based on the nature of the projects.

1) Impact on the natural environment (ecosystem, etc.) and anti-pollution measures

- Anti-pollution measures: It should be examined whether the digging of cannels or extraction of groundwater will cause a decline of groundwater level or subsidence, and the method of treatment and the disposal of excavated and dredged soil and sand to be generated as a result of digging should be fully examined. Attention should be paid to considerations for water pollution of rivers and groundwater by the effluents or leachates from irrigation ponds, as well as measures to prevent soil contamination by agrochemicals, heavy metals and other hazardous substances and the salinization of soils.

- Impact on the ecosystem: It should be examined whether changes in stream regime caused by river basin conservation projects or water use (surface water and groundwater) by irrigation projects will adversely affect the aquatic environment (aquatic organisms including anadromous fish, animals and plants, ecosystem, etc.). For the projects that result in large-scale tree clearing, attention should be paid so that proper forest preservation and management will be preformed.

2) Impact on the social environment

- Living and livelihood: Attention should be paid so that water use such as water intake by the project will not adversely affect the downstream water uses (e.g. fisheries). It should be examined whether water-borne diseases (e.g. malaria) will be introduced and consideration will be given to public health education, if necessary. For irrigation projects, etc., attention should be paid so that water rights and land ownerships will be obtained and allocated in an equitable manner.

- Poverty reduction and gender considerations: Attention should be paid so that participatory-type water management system that can reflect the needs of the poor and women will be established.

[107] Please refer to Annex 2(4)

- Resettlement: For the projects requiring large-scale land acquisition and resettlement or large-scale settlement, attention should be paid so that detailed resettlement (action) plans will be developed and proper compensation will be provided.

(3) Implementation Status

The implementation status of environmental and social considerations regarding the above-mentioned points of attention is as described below.

1) Impact on the natural environment (ecosystem, etc.) and anti-pollution measures

- Water quality and dredged soil: For Category A projects, it has been confirmed that water quality will be maintained in the implementation of river basin conservation project because of the low possibility of eutrophication (total nitrogen, total phosphorous, etc.) due to the short detention time in the reservoirs and also because of stable water supply to the downstream areas of reservoirs (by continuous flow rate maintenance), and that mercury contents in the bottom sediment of drainage channels are below the standard values[108]. In the large-scale irrigation project, it is planned to take measures against degradation of water quality in discharge channels, wells and groundwater (such as educational activities on the management of agrochemicals, pretreatment of well water) and conduct monitoring inside and outside the irrigated farmlands[109]. Regarding excavated and dredged soil and sand, it has been confirmed that dissolution testing of soil components will be conducted and the soil will be properly reused (to raise reclaimed land, etc.). As for Category B projects, since they are mostly for the rehabilitation of irrigation and drainage facilities, it was confirmed beforehand that degradation of water quality and sediment quality is not predicted.

- Impact on the ecosystem: For all the projects surveyed, it has been confirmed that the project sites do not contain protected areas, ecologically important habitats, or habitats of valuable species. For the large-scale irrigation project, etc. that will result in large-scale tree clearing, it has been confirmed that promotional and educational activities on forest management and environmental conservation will be carried out to prevent excessive tree cutting by the settled farmers, etc[110].

2) Impact on the social environment

[108] Indonesia : “Integrated Water Resources and Flood Management Project for Semarang”

[109] Viet Nam : “Phan Ri- Phan Thiet Irrigation Project”

[110] Viet Nam : “Phan Ri- Phan Thiet Irrigation Project”

- Living and livelihood: Strengthening of not only hardware aspects but also software aspects such as technical guidance and strengthening of water users associations for proper water use and equitable allotment of water rights and educational activities for proper management of agrochemicals are incorporated as part of project components or the consulting service in many cases (8 out of 10 projects)[111].

- Poverty reduction and gender considerations: Of the 10 projects in this sector, 8 projects are classified as anti-poverty projects[112]. In an example of the river basin conservation project, it has been confirmed that, with the support of facilitators such as NGOs, a structure will be established to provide support for the development of a village development plan in which residents participate in the project area where many poor people live[113]. In an irrigation project, it has been confirmed that, as the anti-poverty component, subgroups of mainly poor residents (including women) will be organized under the water users associations, and support for the improvement of livelihoods such as the employment in construction of irrigation facilities and saving and loan activities within the groups[114] as well as support for farming activities for livelihood improvement of the poor residents such as landless farmers will be provided[115].

- Resettlement: In Category A projects (large-scale irrigation project, flood control)[116], large-scale land acquisition and large-scale resettlement (which means large-scale settlement in irrigation projects) are planned to take place and it has been confirmed that compensation and living and livelihood support will be provided properly to both legal and illegal residents (shops) based on detailed land acquisition and resettlement (action) plans. It is required for a large-scale irrigation project involving large-scale settlement, in particular, to give social consideration regarding establishment of a coordination and resolution mechanism for the acquisition of land use rights (to deal with problems between residents and the administration), equitable allotment of water rights by water users associations, allocation of residences taking

---

[111] India : “Rajasthan Minor Irrigation Improvement Project”, “Swan River Integrated Watershed Management Project”, and “Andhra Pradesh Irrigation and Livelihood Improvement Project”, Indonesia : “Urgent Disaster Reduction Project for Mt. Merapi/Progo River Basin and Mt. Bawakaraeng”, Pakistan : “Lower Chenab Canal System Rehabilitation Project”, Viet Nam : “Phan Ri- Phan Thiet Irrigation Project”, Peru : “Irrigation Sub-Sector Project”, Morocco : “Watershed Management Project”

[112] India : “Rajasthan Minor Irrigation Improvement Project”, “Swan River Integrated Watershed Management Project”, and “Andhra Pradesh Irrigation and Livelihood Improvement Project”, Indonesia : “Urgent Disaster Reduction Project for Mt. Merapi/Progo River Basin and Mt. Bawakaraeng”, Pakistan : “Lower Chenab Canal System Rehabilitation Project”, Viet Nam : “Phan Ri- Phan Thiet Irrigation Project”, Peru : “Irrigation Sub-Sector Project”, Morocco : “Watershed Management Project”

[113] Morocco : “Watershed Management Project”

[114] India : “Rajasthan Minor Irrigation Improvement Project”

[115] India: “Andhra Pradesh Irrigation and Livelihood Improvement Project”

[116] Viet Nam : “Phan Ri- Phan Thiet Irrigation Project”, Indonesia : “Integrated Water Resources and Flood Management Project for Semarang”

into account blood relationships, religion, economic status, etc. of the settled people[117]. In the case of this irrigation project, it has been confirmed that preferential treatment will be given to ethnic minorities and landless farmers for including subsidies for settlement.

4.5.5. Agriculture, Forestry and Fisheries

(1) Overview

All of the 6 projects surveyed are Category B projects related to forestry[118].

(2) Points of Attention for Environmental and Social Considerations

The followings are the points of attention for environmental and social considerations characteristic of this sector which are based on the nature of the projects.

1) Explanation to residents, achievement of social acceptability, and social environment

- Explanation to local residents: As afforestation projects involve resident participatory activities in many cases and are likely to have various kinds of impact on the project area and surrounding areas, attention should be paid so that adequate explanation will be provided to local residents and that the understanding of residents is obtained.
- Land acquisition and resettlement: As afforestation projects require a substantial area of land for afforestation, attention should be paid to the confirmation regarding land acquisition and associated resettlement. In some afforestation projects in developing countries, land for which ownership (right to use) is unclear is customarily used as farmland or pasture (illegal use) though such situation was not found in most of the projects surveyed, and therefore the land use status should be examined taking into account the situation unique to each country or region.
- Living and livelihood: Attention should be paid to the identification of potential negative impacts of afforestation on the living conditions of residents and considerations for, in particular, those whose livelihoods are based on farming, raising livestock, or hunting and gathering in the forest.

2) Impact on the natural environment and anti-pollution measures

- Water quality and soil contamination: As the use of fertilizers, agrochemicals, etc. for tree planting is expected to cause water pollution, soil contamination and other impact, attention

[117] Viet Nam : “Phan Ri- Phan Thiet Irrigation Project”

[118] Please refer to Annex 2(5)

should be paid to the environmental impact assessment of the use of fertilizers, agrochemicals, etc.

- Impact on the ecosystem: As mono-species plantations in afforestation projects may adversely affect wildlife habitats or cause outbreaks of pests, attention should be given to the consideration of tree species to be planted from an environmental perspective.

- Attention should be paid to the impact of tree clearing on the water retention capacity, landslides, and ecology of the hydrosphere not only in the project area but also the surrounding areas. In the cases where groundwater is extracted, attention should be paid to the impact assessment of subsidence.

(3) Implementation Status

The forest conservation projects surveyed[119] are to promote forest conservation and soil conservation through afforestation in the regions with problems of soil runoff, etc. and are expected to bring about increases in water retention capacity, increases in biodiversity, and improvements of livelihood of local residents participating in afforesting activities, etc.

Considering the nature of the projects, special attention was paid to the confirmation of the necessity of land acquisition, explanation to residents and achievement of social acceptability, considerations for vulnerable social groups because poor people, etc. live in the surrounding areas of the project sites, impact assessment of tree species to be planted, and measures to prevent pollution by fertilizers, agrochemicals, etc. For each item specified in the Environmental Guidelines including these points of attention, environmental and social considerations have been mostly confirmed.

The implementation status of environmental and social considerations regarding the above-mentioned points of attention is as described below.

1) Explanation to residents and achievement of social acceptability

- For all projects, it has been confirmed that proper explanation was made to residents about the project and the understanding of residents was obtained. In one project, in response to the advice of an NGO, JBIC requested the executing agency to have a dialogue with the NGO and consultation between the executing agency and the NGO was held. In another project[120], JBIC participated in a meeting for dialogue with residents held by an NGO, thus supporting these activities.

---

[119] India : “Orissa Forestry Sector Development Project”, “Tripura Forest Environmental Improvement and Poverty Alleviation Project” and “Gujarat Forestry Development Project Phase 2”, China : “Eco-environmental Construction and General Treatment Project of the Yangtze Upper Reaches in Sichuan Province”, “Henan Province Afforestation Project” and “Jilin Afforestation Project”

[120] India : “Orissa Forestry Sector Development Project”

- Since many forest conservation projects involve participation by residents, incentives such as the system under which residents participated in afforestation activities can benefit from the timber generated through forest-thinning are offered[121] and livelihood improvement efforts such as the production and sale of processed forest products[122] are incorporated in project planning.

- It has been confirmed that all projects will not result in land acquisition, involuntary resettlement, and loss of means of livelihood. This is because forest conservation projects basically involve participation by residents and tree planting is conducted in national lands or private lands selected through community participation, in principle. Therefore, no resident is forced to participate. There is a case where although loss of livelihood is not likely to occur, the project may have limited impact on livestock raising production. In this case it has been confirmed that measures to mitigate such impact will be taken, such as creating pasture in the afforestation area, etc[123].

- Examples of considerations for the poor and those who are socially vulnerable include the raising of the ratio of commercial forests and timber forests within protected forests, employment of poor household members as forest fire watchers[124], and preferential employment of poor and female residents who wish to offer services for tree and grass planting in national lands[125]. As for 3 forest conservation projects[126], one of the conditions for selecting the project area was that many members of designated tribes with a high proportion of poor reside in the area and social considerations are given so that designated tribes can participate in the forest management system participated in by residents.

2) Impact on the natural environment and anti-pollution measures

- With respect to the measures to prevent pollution by fertilizers and agrochemicals, it has been confirmed that only a small amount of fertilizers and agrochemicals will be used[127], organic fertilizers and agrochemicals which cause less environmental pollution will be used when

[121] China : “Eco-environmental Construction and General Treatment Project of the Yangtze Upper Reaches in Sichuan Province” and “Jilin Afforestation Project”

[122] India : “Tripura Forest Environmental Improvement and Poverty Alleviation Project”

[123] China : “Henan Province Afforestation Project”

[124] China : “Henan Province Afforestation Project”

[125] China : “Jilin Afforestation Project”

[126] India : “Orissa Forestry Sector Development Project”, “Tripura Forest Environmental Improvement and Poverty Alleviation Project” and “Gujarat Forestry Development Project Phase 2”

[127] China : “Henan Province Afforestation Project”

planting trees[128], and proper management of fertilizers and agrochemicals and guidance by the executing agency will be conducted[129]. For all projects, it has been confirmed that anti-pollution measures will be taken by controlling the use of agrochemicals, etc.

- The project[130] aimed at helping improve the natural environment by planting trees of native species in the regions often affected by soil runoff and flood damage is expected to cause increase in biodiversity and decrease in soil runoff from mountainous areas to downstream areas, and thereby contributes to the improvement of habitats in the hydrosphere, in addition to the improvement of habitats of animals and plants. Thus, it has been confirmed that adverse impact on the natural environment will be minimized. In the 6 projects surveyed, it has been confirmed that planting trees of native species in the regions where soil runoff occurs[131] and planting trees of native species with consideration to the ecosystem[132] are expected to have no particular negative impact on the natural environment.

In afforestation projects, outbreaks of pests are predicted as a secondary effect. As examples of preventive measures, monitoring points are established and integrated pest management for pest damage has been incorporated in project planning in one case[133], and in another case[134], it has been confirmed that forestry management departments at the province, city, and county levels assume responsibility for pest prevention and supervision and a pest management structure composed of 33 pest supervision bodies and 285 staff members has been established. Pest prevention is a common issue for afforestation projects. However, specific measures were considered in only one-third of all projects.

4.5.6. Mining and Manufacturing

(1) Overview

[128] China : “Jilin Afforestation Project”

[129] India : “Orissa Forestry Sector Development Project”, “Tripura Forest Environmental Improvement and Poverty Alleviation Project” and “Gujarat Forestry Development Project Phase 2”

[130] China : “Henan Province Afforestation Project”

[131] China: “Eco-environmental Construction and General Treatment Project of the Yangtze Upper Reaches in Sichuan Province”, “Henan Province Afforestation Project” and “Jilin Afforestation Project”

[132] India : “Orissa Forestry Sector Development Project”, “Tripura Forest Environmental Improvement and Poverty Alleviation Project” and “Gujarat Forestry Development Project Phase 2”

[133] China : “Henan Province Afforestation Project”

[134] China : “Jilin Afforestation Project”

The 5 projects surveyed consist of one Category A project (industrial area infrastructure development), one Category B project (E/S loan), and 3 Category FI projects (two-step loan for the support of private companies and SMEs).[135]

(2) Points of Attention for Environmental and Social Considerations

The followings are the points of attention for environmental and social considerations characteristic of this sector which are based on the nature of the projects.

1) Anti-pollution measures and impact during construction

- Anti-pollution measures: Attention should be paid to ensure that air pollutants (NOx and SOx) emitted from infrastructure facilities, BOD, COD, SS, etc. in effluents and noise and vibration comply with the country's standards and that wastes, etc. generated by the facilities will be treated and disposed of in accordance with the country's standards. Also, attention should be paid so that appropriate odor control measures will be taken.
- Impact during construction: Attention should be paid so that appropriate measures will be taken to mitigate pollution during construction (noise, vibration, turbid water, dust, exhaust gases, wastes, offensive odors). Also, considerations should be given so that educational activities on traffic safety, public health, etc. will be conducted for persons engaged in the project as necessary.

2) Social environment

- Living and livelihood: Attention should paid to whether the project will adversely affect the living conditions of residents and whether the project will cause adverse impact (such as traffic congestion and increase in traffic accidents) on road traffic in the surrounding areas.
- For the projects requiring large-scale resettlement, attention should be paid so that a detailed resettlement plan will be developed and proper compensation and support will be provided. Also, attention should be paid so that appropriate considerations will be given to vulnerable social groups such as indigenous peoples and women.

(3) Implementation Status

The implementation status of environmental and social considerations regarding the above-mentioned points of attention is as described below. For the Category A project[136], it has been confirmed that environmental and social considerations will be properly performed taking into

[135] Please refer to Annex2(6)

[136] Viet Nam : "Vinh Phuc Province Investment Climate Improvement Project"

account the above-mentioned points. For the E/S loan project in Category B[137], although basic environmental and social considerations have been confirmed, a detailed study will be made at the stage of detailed design (D/D). The other 3 projects are classified as Category FI[138], for which it is stipulated that "JBIC checks through the financial intermediary, etc. to see whether appropriate environmental and social considerations as stated in the Guidelines are ensured"[139].

1) Anti-pollution measures and impact during construction

- For the Category A project for the development of infrastructure such as roads, electric power facilities, water supply and sewerage[140], it has been confirmed that appropriate anti-pollution measures will be taken including measures against air pollution (exhaust emission control, development of monitoring plans, tree planting, water sprinkling, educational activities on vehicle management for environmental conservation, etc.) and water management, proper methods of waste treatment (sludge drying and condensation, etc.), noise and vibration control measures (creation of planted zones, installation of traffic signs, soundproof walls, and low-noise equipment etc.) and odor control measures (tree planting, etc.).

- Impact during construction (only for the above-mentioned Category A project): The following measures are considered to reduce the impact during construction: (a) water quality: proper management of water supply and drainage, creation of a sand basin, collection and management of general wastes, installation of temporary toilets, etc.; (b) noise and vibration: use of low-noise equipment, restrictions on the hours of operation, tree planting, and installation of soundproof walls; (c) dust: use of vehicles satisfying the emission standards, water sprinkling, and placement of covers on trucks that transport materials; (d) soil and waste: collection of daily wastes on a regular basis, proper management and disposal of wastes generated by heavy equipment; and (e) implementation programs of environmental education, traffic safety, and HIV/AIDS prevention.

2) Social impact

- Living and livelihood: It has been confirmed that educational programs on traffic safety will be provided for local residents and contractors in response to the expected traffic increase as a result of infrastructure development such as roads and factories, and HIV/AIDS prevention

---

[137] Cambodia : "Sihanoukville Port SEZ Development Project (E/S)"

[138] Tunisia : "Private Investment Credit Project", Mongolia : "Two-Step-Loan Project for Small and Medium-Scaled Enterprises Development and Environmental Protection", Viet Nam : "Small and Medium-Sized Enterprizes Finance Project (II)"

[139] Environmental Guideline Part 1, "4. Procedures for Confirmation of Environmental and Social Considerations", (3) Environmental Review for Each Category, p.8

[140] Viet Nam : "Vinh Phuc Province Investment Climate Improvement Project"

measures will be implemented for persons concerned including local residents as the risk of HIV infection may increase by the influx of construction workers. In the industrial area infrastructure development project[141], in particular, assistance for HIV/AIDS preventive measures with an E/S loan will be considered.

- Large-scale resettlement: For the Category A project, the land acquisition and resettlement plan has been developed and details of the development of infrastructure of the resettlement site, compensation and support, schedule, etc. have been confirmed.

3) Others

As stated above, the 3 projects other than Category A and Category B projects are projects of two-step loans to support private companies and environmental and social impacts cannot be specified because the sub-projects cannot be specified prior to JBIC's approval of funding. In such case, the executing agency (or the co-financier in the case of co-financing) is required to take responsibility to undertake environmental and social considerations. The executing agency will have the intermediary bank (PFI) implement environmental and social considerations in accordance with JBIC Environmental Guidelines and, after confirming the appropriateness of such considerations, decide on the funding for the PFI[142]. It has been confirmed that if the executing agency is determined to lack sufficient capacity for confirmation of environmental and social considerations, appropriate environmental and social considerations will be ensured before and after the decision on the sub-projects with the support by the consultant[143].

4.5.7. Social Services

4.5.7-1 Water Supply, Sewerage and Sanitation, and Environmental Conservation in Multi-sectors

(1) Overview

The 24 projects for water supply, sewerage and sanitation surveyed consist of 2 Category A projects and 22 Category B projects. The 7 projects for environmental conservation in multi-sectors include 6 Category B projects and one Category FI project.[144]

(2) Points of Attention for Environmental and Social Considerations

---

[141] Cambodia : "Sihanoukville Port SEZ Development Project (E/S)"

[142] Tunisia : "Private Investment Credit Project", Mongolia : "Two-Step-Loan Project for Small and Medium-Scaled Enterprises Development and Environmental Protection", Viet Nam : "Small and Medium-Sized Enterprizes Finance Project (II)"

[143] Viet Nam : "Small and Medium-Sized Enterprizes Finance Project (II)" ,Tunisia : "Private Investment Credit Project"

[144] Please refer to Annex2(7)

The followings are the points of attention for environmental and social considerations characteristic of this sector which are based on the nature of the projects.

1) Achievement of social acceptability and social environment

- Explanation to local residents: As the project is likely to have impact on the environment and social environment of the project area and the surrounding areas, attention should be paid so that adequate explanation will be given to local residents and understanding will be obtained.
- Land acquisition and resettlement: The necessity of land acquisition and resettlement and the basic resettlement plan should be examined.
- Living and livelihood: Attention should be paid to whether the project will adversely affect the living conditions of residents by causing changes in the land use and water area use in the surrounding area. In the case of a sewerage project, in particular, it should be examined whether the project will affect fisheries in the area where effluent will be discharged. In setting the charges of the services, the paying capacity of the poor should be taken into consideration as part of the considerations for vulnerable social groups.

2) Impact on the natural environment and anti-pollution measures

- Anti-pollution measures for water supply projects: Attention should be paid to the confirmation of whether chlorine from chlorine storage facilities and chlorine injection facilities will cause air pollution, and weather effluent and wastes such as sludge generated by facility operations comply with the country's standards. In the cases of extraction of a large volume of groundwater, attention should be paid to whether the extraction of groundwater will cause subsidence.
- Anti-pollution measures for sewerage projects: Attention should be paid to the confirmation of whether the effluent discharged after sewage treatment complies with the country's effluent standards and whether wastes such as sludge will be properly treated and disposed of in compliance with the country's standards. Attention should also be paid to whether measures will be taken to control offensive odors from sludge treatment facilities.
- Anti-pollution measures for waste treatment projects: Attention should be paid to the confirmation of: whether air pollutants such as sulfur oxides (SOx), nitrogen oxides (NOx), and soot and dust, and dioxins emitted from incineration facilities and vehicles used for waste transportation comply with the country's emission standards, etc.; whether effluent from facilities and leachates from the waste disposal sites comply with the country's effluent standards, etc.; and whether wastes such as treatment residues and incineration ash will be properly treated and disposed of in accordance with the country's standards. Attention should also be paid to whether measures will be taken to control offensive odors.

- Anti-pollution measures for heat supply projects: Regarding measures against pollution by exhaust gases, attention should be paid to the confirmation of whether the country's emission standards will be met by implementing measures such as the installation of high smokestacks, dust collecting and desulferizing, etc. If coal is used as the fuel, attention should be paid to the measures against pollution by soot and dust generated as a result of storage and treatment of incineration ash, etc.

Attention should be paid to the disposal of earth and sand generated during construction and measures concerning the impact during construction (air pollution, noise, water pollution, etc).

(3) Implementation Status

Taking into account the nature of the projects, particular attention needs to be paid to the necessity of land acquisition and resettlement, confirmation of land acquisition procedures, etc., explanation to residents and achievement of social acceptability, measures against pollution caused by the projects, and impact during construction such as earth and sand, noise, soot and dust, etc. For each item of the Environmental Guidelines including these points of attention, environmental and social considerations have been confirmed.

As a result, for all projects surveyed, it has been confirmed that any particular adverse impact on the natural environment (air and water quality, environmental impact of wastes, etc.) and the social environment (land acquisition and resettlement) as well as adverse impact of disposal of dirt and sand, soot and dust, noise, etc. during construction is not anticipated.

The implementation status of environmental and social considerations regarding the above-mentioned points of attention is as described below.

1) Achievement of social acceptability and social environment

- Explanation to residents and achievement of social acceptability: Confirmation of explanation to residents and achievement of social acceptability has been performed in most projects. For the project for which 30–40% of local residents expressed concern over adverse impact on their living conditions, it has been confirmed that further public consultation will be held when developing the environmental management plan and, based on the results, the status of consensus building among residents will be confirmed[145].

- Land acquisition, resettlement, loss of means of livelihood: For all projects, confirmation has been performed in accordance with the Environmental Guidelines. Most projects do not involve large-scale land acquisition and resettlement and it has been confirmed that, when necessary, land acquisition will be conducted following the country's procedures. For the

[145] Viet Nam : "Hai Phong City Environment Improvement Project (I)"

projects that are classified as Category A because they result in large-scale involuntary resettlement, it has been confirmed that resettlement will be conducted based on the basic resettlement plan, and that the resettlement implementation plan including an accurate number of affected residents and detailed compensation amounts, etc. will be developed at the stage of detailed design[146]. It has been confirmed that loss of means of livelihood will not happen in most cases. In a case where some farmers will lose part of their farmland as a result of land acquisition, it has been confirmed that considerations are given through job conversion to non-agriculture sectors[147].

2) Impact on the natural environment and anti-pollution measures

- For all projects for water supply and sewerage, sanitation, and environmental conservation in multi-sectors, assessment of environmental impact was conducted taking into account the nature of each project as described above. Major items of confirmation are as follows: (a) water supply: assessment measuring result of air pollution by chlorine for disinfection and subsidence by extraction of groundwater; (b) sewerage: confirmation that the treated effluent complies with the country's effluent standards and sludge, etc. is properly treated and disposed of in compliance with the country's standards; (c) waste treatment: confirmation that air pollutants emitted from incinerating facilities, etc. comply with the country's emission standards, that leachates from the waste disposal sites comply with the country's effluent standards, and that odor control measures will be taken; (d) heat supply: confirmation that exhaust gases comply with the country's emission standards and confirmation of measures against pollution by soot and dust generated as a result of storage and treatment of incineration ash, etc.; and (e) common to all projects: confirmation of measures against pollution during construction (disposal of earth and sand, measures for air pollution, noise, water pollution, etc.). For each project, confirmation was conducted in accordance with the Environmental Guidelines.

- In the project classified as Category A because it is likely to have significant impact on the environment, a dredging method which can minimize the spread of soil particles is adopted for dredging sludge from the lakebed containing soil contaminated over the standard level due to considerations for arsenic diffusion in the lake water during dredging and in the future[148].

4.5.7-2 Education

(1) Overview

[146] Viet Nam : "Hai Phong City Environment Improvement Project (I)"

[147] China : "Changsha Diversion Works and Water Quality Environmental Project"

[148] India : "Hussain Sagar Lake and Catchment Area Improvement Project"

The 9 projects surveyed consist of 6 Category B projects and 3 Category C projects.[149]

(2) Points of Attention for Environmental and Social Considerations

The followings are the points of attention for environmental and social considerations characteristic of the education sector which are based on the nature of the projects.

1) Achievement of social acceptability and social environment

- Land acquisition and resettlement: In the cases where land acquisition and resettlement are necessary for the construction of school buildings, etc., attention should be paid to the confirmation that land acquisition, etc. will be implemented following the country's procedures.
- Considerations for vulnerable social groups and poverty reduction: In educational projects, attention should be paid to the confirmation of the considerations concerning entrance into schools (e.g. preferential treatment for students of ethnic minorities entering into schools), taking into account the situation specific to each region.

2) Impact on the natural environment and anti-pollution measures

- Attention should be paid to the examination of the impact of noise, dust, etc. during construction of school buildings on the surrounding areas, and the environmental and social impact of waste treatment and disposal of hazardous wastewater, chemicals, etc. discharged from research activities of medical or chemical-related classes, etc.

(3) Implementation Status

Taking into account the nature of the projects, particular attention needs to be paid to the necessity of land acquisition and resettlement, confirmation of land acquisition procedures, etc., adequate consultation with residents, impacts of noise, soot and dust, etc. during construction, and waste treatment and disposal of hazardous wastewater, chemicals, etc. discharged from research activities. For each item of the Environmental Guidelines including these points of attention, environmental and social considerations have been confirmed.

As a result, for all projects surveyed, it has been confirmed that any particular adverse impact on the natural environment (environmental impacts of the treatment and disposal of wastes generated by research activities, etc.) and the social environment (land acquisition and resettlement) as well as the impact of soot and dust, noise, etc. during construction is not anticipated.

[149] Please refer to Annex2(7)

The implementation status of environmental and social considerations regarding the above-mentioned points of attention is as described below.

1) Achievement of social acceptability and social environment

- Land acquisition and resettlement: For each of the 2 projects requiring land acquisition, it has been confirmed that land acquisition procedures will be properly implemented[150].
- Considerations for vulnerable social groups and poverty reduction: Taking into account the situation specific to each region, considerations for vulnerable social groups such as the considerations given for entrance into schools have been confirmed in most projects. In the human resource development projects, preferential treatment for students of ethnic minorities entering into schools has been confirmed[151]. Also, it has been confirmed that the ratio of students from regional and rural areas is included in the operation and effect indicators from the standpoint of promoting poverty reduction[152], and that school building will be designed and constructed to be considerate of disabled and other socially vulnerable people[153].

2) Impact on the natural environment and anti-pollution measures

- At higher education institutions and research facilities, the environmental and social impact of waste treatment and disposal of hazardous wastewater, chemicals, etc. discharged from education and research activities has been examined.
- For all projects involving construction work, anti-pollution measures (for noise, vibration, dust, wastes, etc.) have been confirmed. In a project to construct a new school at a site of a former paper mill where asbestos is used in the existing buildings, it has been confirmed that the method of demolishing the existing buildings prior to construction will be examined and that asbestos will be properly disposed of as industrial waste in accordance with the domestic laws[154].

4.5.7-3 Urban/Rural Community Infrastructure

(1) Overview

---

[150] Indonesia : “Hasanuddin University Engineering Faculty Development”, Tunisia : “Borj Cedria Science and Technology Park Development Project”

[151] China : “Higher Education Project (Liaoning Province)”, “Higher Education Project (Hebei Province)” and “Higher Education Project (Hainan Province)”

[152] Indonesia : “Development of Faculty of Medicine and Health Sciences of Syarif Hidayatullah State Islamic University”

[153] Indonesia : “Hasanuddin University Engineering Faculty Development”

[154] Indonesia : “Hasanuddin University Engineering Faculty Development”

The 6 projects surveyed consist of one Category A project, 4 Category B projects, and one Category FI project. All projects in this sector are classified as anti-poverty projects.[155]

In the following analysis the projects of this sector are divided into 2 types: urban infrastructure development projects and small-scale rural infrastructure development projects.

(2) Points of Attention for Environmental and Social Considerations

The followings are the points of attention for environmental and social considerations characteristic of this sector which are based on the nature of the projects.

1) Urban infrastructure development projects

Considerations for the poor and strengthening of resident organizations: The urban infrastructure projects (water supply and sewerage, power transmission and distribution, roads, etc.) in low-income areas, in particular, are in many cases carried out in unsanitary residential areas or illegal residential areas. Therefore, from the perspective of poverty reduction and social consideration, attention should be paid so that improvement of living environments, etc. will be brought about through the establishment of resident organizations including the poor people and educational activities, etc.

2) Small-scale rural infrastructure development projects

Resident participatory type: In principle, small scale projects with no particular negative impact are selected as sub-projects. In selecting sub-projects, attention should be paid so that the needs and priority of local residents will be fully reflected. It is desirable that residents including the socially vulnerable such as women, etc. take the lead in the implementation and maintenance of the project.

(3) Implementation Status

The implementation status of environmental and social considerations regarding the above-mentioned points of attention is as described below. It has been confirmed that the project design and implementation structure to benefit the poor and the socially vulnerable will be established.

1) Urban infrastructure development projects

Considerations for the poor and gender considerations: Among the projects surveyed, there is only one project in Category A for this type of project[156]. This project is aimed at developing basic infrastructure in an unsanitary residential area, enabling illegal residents in this area to legally own houses, and improving access to various social services. In this project, it is planned to give the

[155] Please refer to Annex2(7)

[156] Morocco : “Urban Areas Living Environment Improvement Project”

beneficiary residents (including illegal residents) who need funds to purchase land and construct houses the right to purchase new lots of land at low prices (for the poor people, it is also considered to introduce an installment payment and small-scale loan system). In addition, through the local resident support component of the project, provision of relocation information to residents and monitoring of living situations are planned to be conducted with the support of local NGOs. Thus, it has been confirmed that considerations will be given to the poor. In the same component, it is planned to hire female enlightenment activists and provide support for women's livelihood improvement activities, and it has been confirmed that gender considerations are incorporated in the implementation structure of the project.

2) Small-scale rural infrastructure development projects

Resident participatory type: For all of the sub-project-type projects, the contents of the projects have been examined based on the needs of residents.

Considerations for the poor: For all projects surveyed (5 projects)[157], it has been confirmed that steps for livelihood improvement and economic stimulation in poverty areas will be taken, such as the employment of local residents in the implementation of the projects and the increase in employment opportunities through the development of infrastructure and diversification of sales channels for agricultural products. In one project, for example, the subprojects (3 for roads and 1 for water supply) selected for the development of infrastructure for local industries from the view point of network building and marketing are adopted as pilot projects to promote industrial development and employment in poverty areas[158].

Gender considerations: In a rural infrastructure development project, about 2,500 poor women are planned to be employed for 2 years in technical assistance activities such as tree planting along roads and childcare with the support of an NGO[159]. In another project, Women Participation Promotion Strategies have been developed to encourage participation of women's groups in village- and county-level decision making meetings[160]. In this way, gender considerations are incorporated in many anti-poverty projects.

4.5.7-4 Others

[157] Indonesia : "Regional Infrastructure for Social and Economic Development", Sri Lanka : "Pro-Poor Rural Development Project", China : "Guizhou Province Environment Improvement and Education Project", Bangladesh: "Eastern Bangladesh Rural Infrastructure Development Project", Viet Nam : "Small-Scale Pro Poor Infrastructure Development Project(II)"

[158] Viet Nam : "Small-Scale Pro Poor Infrastructure Development Project(II)"

[159] Bangladesh: "Eastern Bangladesh Rural Infrastructure Development Project"

[160] Indonesia : "Regional Infrastructure for Social and Economic Development"

Other sub-sectors not mentioned above include tourism, strengthening of administrative management, public health and medicine, and other social services. The projects of these sub-sectors consist of 3 Category B projects (tourism: 2, public health and medicine: 1), 2 Category C projects (strengthening of administrative management), and 2 Category FI projects (other social services [recovery assistance]). Among them, only those sub-sectors that have characteristic points of attention for environmental and social considerations are taken up (therefore Category C projects are excluded).[161]

(1) Points of Attention and Implementation Status

1) Tourism sub-sector

(Points of attention for environmental and social considerations)

For tourism development projects, attention should be paid so that considerations will be taken not to cause damage to precious historical, cultural, and religious heritage and historic site. Depending on project, attention should be paid to ensure that enlightenment activities as part of regional revitalization will be conducted and considerations will be taken to encourage resident participation in project implementation.

(Implementation status)

In the project surveyed, it has been confirmed that a participatory-type approach is adopted to involve local residents through community cleaning activities by local residents and educational activities for taxi drivers and tourist guides on their attitude towards visitors, etc[162].

2) Public health and medicine sector

(Points of attention for environmental and social considerations)

As this sector targets the poor, attention should be paid particularly from the perspective of poverty reduction and social considerations (for vulnerable social groups) to ensure that an implementation structure to improve the quality of and access to medical services for the poor will be incorporated in the project.

(Implementation status)

There is only one project in this sector[163]: a medical facilities development project which mainly covers poverty areas. In this project, it has been confirmed that steps will be taken to narrow the

[161] Please refer to Annex2(7)

[162] Sri Lanka : “Tourism Resources Improvement Project”

[163] Viet Nam : “Regional and Provincial Hospital Development Project”

regional gap in medical services and improve services for ethnic minorities and vulnerable social groups by promoting introduction of a medical fund for the poor or selecting equipment and training that can help expand services in the field of maternal and child health as part of gender considerations.

3) Reconstruction assistance projects

(Points of attention for environmental and social considerations)

Both the 2 projects surveyed are sub-project type infrastructure support projects (Category FI) targeting poverty areas[164]. Attention should be paid so that living conditions of residents will be improved taking into account the needs of vulnerable social groups including the disaster-affected people.

(Implementation status)

In both projects, it has been confirmed that, taking account of the recommendations based on the recovery needs assessment, attention will be paid to the identification of and considerations for the needs of vulnerable social groups including the disaster-affected people.

4.5.8. Non-project Loans

(1) Overview

The 10 projects surveyed are all classified as Category C.[165] The projects in this sector are non-project-type loans such as commodity loans or sector program loans to invest the collateral funds resulted from commodity loans in the development plan of the priority sector of the country.

(2) Points of Attention for Environmental and Social considerations

As Category C projects are likely to have minimal or no adverse environmental impact, environmental reviews will not proceed beyond screening under the Environmental Guidelines.

(3) Implementation Status

The 8 out of 10 projects surveyed are anti-poverty projects and in many cases the project plan contains considerations for the vulnerable social groups.

Half (5) of the projects surveyed are Development Policy Lending to support national strategies for poverty reduction and achievement of the development of the host country[166]. In one case, completion

[164]Sri Lanka : “Sri Lanka Tsunami Affected Area Recovery and Takeoff Project”, Indonesia : “Aceh Reconstruction Project”

[165] Please refer to Annex2 (8)

of a planning manual including gender considerations is listed among the reform items required to receive funding[167].

Regarding recovery assistance loan[168], since the disaster-affected regions are resided by many poor people, a poverty reduction effect is expected through humanitarian assistance, infrastructure development, and the support for full recovery of the foundation of livelihoods.

[166] Tanzania : “Fourth Poverty Reduction Support Credit”, Viet Nam : “Third Poverty Reduction Support Credit”, “Fourth Poverty Reduction Support Credit” and “Fifth Poverty Reduction Support Credit”, Lao PDR : “Second Poverty Reduction Support Operation”

[167] Viet Nam : “Third Poverty Reduction Support Credit”, “Fourth Poverty Reduction Support Credit” and “Fifth Poverty Reduction Support Credit”

[168] Pakistan : “Emergency Earthquake Recovery Loan”

5 SUMMARY

In this survey, after reviewing and itemizing the confirmation items specified in the Environmental Guidelines, the implementation status of each item was verified for all 138 projects surveyed and, based on the results, each item was classified according to the implementation status. Then, the general trends and the trends by region, by category, and by sector were summarized and analyzed.

According to the analysis results, confirmation of environmental and social considerations has been implemented by JBIC at high rates in general after the enforcement of the current Environmental Guidelines. Also it was confirmed under the survey that, as compared with the time when the previous guidelines were in effect, items of environmental and social considerations (the contents to be implemented) are more diversified and more careful and meticulous considerations are given. Particularly careful and detailed confirmation was implemented as follows regarding the elements of environmental and social considerations that are considered important by JBIC, such as “participation of stakeholders (promotion of participation of local residents and dialogue)”, “information disclosure (transparent and open process through information disclosure)”, “appropriate compensation and support for local residents affected by land acquisition and involuntary resettlement (social considerations for resettlement of local residents, etc. resulting from the project to be implemented)”, and “social concerns (social considerations including measures against communicable diseases such as HIV/AIDS, considerations for children’s rights, the indigenous peoples and gender)”.

Regarding “participation of stakeholders (promotion of participation of local residents and dialogue)”, it was confirmed under the survey that importance was placed on dialogue with local residents and local NGOs in forming the project plan in every project.

Regarding “information disclosure (transparent and open process through information disclosure)”, the category classification of the ODA loan-financed projects and (for Category A and Category B projects) EIA reports and other documents concerning environmental and social considerations were published prior to loan agreements and the results of environmental reviews were disclosed after the execution loan agreements. Thus, it was confirmed under the survey that information disclosure were carried out in a timely manner in most projects.

Regarding “appropriate compensation and support for local residents affected by land acquisition and involuntary resettlement (social considerations for resettlement of local residents, etc. resulting from the project to be implemented)”, in the cases where large-scale resettlement is required it was confirmed under the survey that the resettlement plans, including polices for the provision of compensation and support to residents to be affected as a result of the project, procedures and schedules were drawn up and implemented pursuant to the laws of the borrowing country while obtaining residents’ consensus through consultations, etc.

“Social concerns (social considerations including measures against communicable diseases such as HIV/AIDS, considerations for children’s rights, the indigenous peoples and gender)” is one of the fields that made the most significant progress. The scope of impact to be investigated and examined covers a wide variety of items concerning involuntary resettlement, poverty groups, indigenous peoples, gender, children, etc. It was confirmed under the survey that, in addition to environmental impact, the effects of “poverty reduction promotion” and “social development promotion (gender perspective, etc.)” for vulnerable social groups were also examined and reflected in the results of environmental review. Major examples include HIV/AIDS measures in infrastructure projects and steps to tackle poverty and efforts of social consideration in various anti-poverty projects.

Although no significant difference was found in the regional trends of the implementation status, there are some characteristics specific to each region and country. In China, for example, in line with the environmental policy of the government, the components of environmental education (training, etc.) and strengthening of organization of the executing agency are incorporated in the environmental improvement and environmental conservation projects to support enhancement of structures to implement the environmental conservation measures of the projects. In countries and regions with large populations of ethnic minorities and indigenous peoples such as China, Vietnam, India and African countries, social considerations are taken for vulnerable social groups, while in disaster-affected countries, recovery assistance projects are implemented by resident participation through strengthened cooperation with NGOs.

Among sectors, too, no significant difference in the implementation status was found. However, the points of attention for environmental and social considerations vary widely by sector. Therefore, taking into full consideration of the characteristics of each sector, examination and confirmation of anti-pollution measures, the natural environment and the social environment were conducted for each project.

There are some items whose implementation levels vary by category, although they were generally implemented. Slight differences by category were observed in the “examination of alternative proposals”, “comparisons with international standards, etc.” and the “monitoring plan and environmental management plan”.

“Examination of alternative proposals ”: This is a procedure to confirm how the submitted project plan was selected by recipient country and the executing agency after examining various alternative proposals from the view point of environmental and social considerations through the reviews of the master plan (M/P) study, feasibility study (F/S) report, EIA report, etc. This procedure was implemented in all Category A projects. As for Category B projects, the examination results of alternative proposals were confirmed through an EIA report or Special Assistance for Project Formation (SAPROF) in most cases. However, for some projects that are not likely to have large

negative impact on the environment, it was not confirmed under the survey that alternative proposals were examined[169].

"Comparison with international standards, etc.": Comparison of the planned values with domestic laws and regulations and environmental standards was generally conducted in all categories. Comparison with international standards and good practices was also implemented in all Category A projects. For Category B projects, examination of the planned values with reference to international standards or good practices was conducted for the projects that are likely to have relatively large environmental impact, like Category A projects. However, in some cases it was not confirmed under the survey that such reference was made because large environmental impact was not expected[170].

"Monitoring plan and environmental management plan": For all Category A projects surveyed, environmental monitoring plans and environmental management plans were drawn up properly and it was confirmed that monitoring will be conducted with the support of consultants specialized in the environment as necessary. For Category B projects, there are some cases where monitoring plans and environmental management plans were prepared in accordance with the domestic laws and where monitoring plans were prepared because monitoring is deemed essential for sufficient environmental and social considerations. However, for the projects that are likely to have small environmental impact or that involve small-scale land acquisition, monitoring was planned to be conducted when necessary and preparation of monitoring plans was not confirmed[171].

This survey shows that meticulous considerations have been undertaken under the current Environmental Guidelines according to the general trends as well as the trends by region, by category and sector. The results identify the items for which the implementation level is high and the items for which the implementation status slightly differs by category. These findings will be incorporated in the process of the revision of the Environmental Guidelines prior to the merger with JICA.

[169] Please refer to Annex1

[170] Please refer to Annex1

[171] Please refer to Annex1

ANNEX1

The list of projects whose implementation was not confirmed under the survey

(1)The list of projects whose implementaion of "Examination of alternative proposals" was not confirmed under the survey.

COUNTRY	PROJECT NAME	CATEGORY
BANGLADESH	Telecommunication Network Development Project	B
CHINA	Higher Education Project (Liaoning Province)	B
CHINA	Higher Education Project (Hebei Province)	B
CHINA	Higher Education Project (Hainan Province)	B
CHINA	Jilin Afforestation Project	B
CAMBODIA	Greater Mekong Telecommunication Backbone Network Project	B
CAMBODIA	Sihanoukville Port SEZ Development Project (E/S)	B
INDIA	Amritsar Sewerage Project	B
INDONESIA	Urgent Disaster Reduction Project for Mt. Merapi/Progo River Basin and Mt. Bawakaraeng	B
INDONESIA	Keramasan Power Plant Extension Project	B
INDONESIA	Development of Faculty of Medicine and Health Sciences of Syarif Hidayatullah State Islamic University	B
INDONESIA	E/S for Kamojang Geothermal Power Plant Extension Project	B
INDONESIA	Railway Double Tracking on Java South Line Project (III) (E/S)	B
INDONESIA	Hasanuddin University Engineering Faculty Development	B
KENYA	Sondu-Miriu Hydropower Project Sang'oro Power Plant	B
PAKISTAN	Load Dispatch System Upgrade Project	B
SRI LANKA	Tourism Resources Improvement Project	B
SRI LANKA	Water Sector Development Project	B
TUNISIA	Borj Cedria Science and Technology Park Development Project	B
TUNISIA	Water Saving Agriculture Project in Southern Oasis Area	B
VIET NAM	2nd Hanoi Drainage Project for Environmental Improvement(I)	B
VIET NAM	Small-Scale Pro Poor Infrastructure Development Project(II)	B
VIET NAM	Southern Binh Duong Province Water Environment Improvement Project	B

(2)The list of projects whose implementaion of "Comparison with international standards" was not confirmed under the survey.

COUNTRY	PROJECT NAME	CATEGORY
BANGLADESH	Grid Substations and Associated Transmission Lines Development Project	B
BANGLADESH	Telecommunication Network Development Project	B
CAMBODIA	Greater Mekong Telecommunication Backbone Network Project	B
CAMBODIA	Sihanoukville Port SEZ Development Project (E/S)	B
EGYPT	Grand Egyptian Museum Construction Project	B
INDIA	Orissa Forestry Sector Development Project	B
INDIA	Kolkata Solid Waste Management Improvement Project	B
INDIA	Visakhapatnam Port Expansion Project (Engineering Services)	B
INDIA	Transmission System Modernization and Strengthening Project in Hyderabad Metropolitan Area	B
INDIA	Amritsar Sewerage Project	B
INDONESIA	North-West Sumatra Inter-connector Transmission Line Construction Project	B
INDONESIA	Railway Double Tracking on Java South Line (III) (E/S)	B
MOROCCO	Sewerage System Development Project	B
MOROCCO	Rural Electrification Project(III)	B
MOROCCO	Watershed Management Project	B
MALDIVES	Maldives Tsunami Reconstruction Project	B
PARAGUAY	Yguazu Hydropower Station Construction Project	B
PAKISTAN	Load Dispatch System Upgrade Project	B
SRI LANKA	Tourism Resources Improvement Project	B
SRI LANKA	Pro-Poor Eastern Infrastructure Development Project	B
SRI LANKA	Water Sector Development Project	B
TUNISIA	Photovoltaic Rural Electrification and Water Supply Project	B
TUNISIA	Water Saving Agriculture Project in Southern Oasis Area	B
VIET NAM	Rural Community Internet Use Development Project	B

(3)The list of projects whose implementaion of "Preparation of monitoring plan and environmental management plan" was not confirmed under the survey.

COUNTRY	PROJECT NAME	CATEGORY
BANGLADESH	Telecommunication Network Development Project	B
BANGLADESH	Karnaphuli Water Supply Project	B
MOROCCO	Rural Electrification Project(III)	B
SRI LANKA	Tourism Resources Improvement Project	B
TUNISIA	Borj Cedria Science and Technology Park Development Project	B
TUNISIA	Photovoltaic Rural Electrification and Water Supply Project	B
TUNISIA	Jendouba Rural Water Supply Project	B
TUNISIA	Water Saving Agriculture Project in Southern Oasis Area	B
VIET NAM	Rural Community Internet Use Development Project	B

(4)The list of projects whose implementaion of "Information disclosure upon completion of the screening" was not confirmed under the survey.

COUNTRY	PROJECT NAME	CATEGORY
CAMBODIA	Sihanoukville Port SEZ Development Project (E/S)	B
TANZANIA	Fourth Poverty Reduction Support Credit	C

ANNEX2

The List of Projects by Sector

(1) Electric Power and Gas

COUNTRY	PROJECT NAME	CATEGORY	SUB-SECTOR
VIET NAM	Ninh Binh II Thermal Power Plant Construction Project(I)	A	Thermal Power Plant
VIET NAM	Ninh Binh II Thermal Power Plant Construction Project(II)	A	Thermal Power Plant
VIET NAM	Nghi Son Thermal Power Plant Construction Project (I)	A	Thermal Power Plant
INDONESIA	Keramasan Power Plant Extension Project	B	Thermal Power Plant
ROMANIA	Turceni Thermal Power Plant Pollution Abatement Projct	B	Thermal Power Plant
INDONESIA	Asahan No.3 Hydroelectric Power Plant Construction Project	A	Hydroelectric Power Plant
INDONESIA	Peusangan Hydroelectric Power Plant Construction Project	A	Hydroelectric Power Plant
INDONESIA	E/S For Asahan No.3 Hydroelectric Power Plant Project	B	Hydroelectric Power Plant
KENYA	Sondu-Miriu Hydropower Project Sang'Oro Power Plant	B	Hydroelectric Power Plant
PARAGUAY	Yguazu Hydropower Station Construction Project	B	Hydroelectric Power Plant
EGYPT	Kuraymat Integrated Solar Combined Cycle Power Plant Project	B	Solar Power Generation
INDONESIA	Ulubelu Geothermal Power Plant Project	A	Geothermal Power Plant
INDONESIA	E/S For Kamojang Geothermal Power Plant Extension Project	B	Geothermal Power Plant
INDIA	Rural Electrification Project	B	Transmission Lines and Distribution Systems
INDONESIA	North-West Sumatra Inter-Connector Transmission Line Construction Project	B	Transmission Lines and Distribution Systems
CAMBODIA	Greater Mekong Power Network Development Project	B	Transmission Lines and Distribution Systems
PAKISTAN	Dadu-Khuzdar Transmission System Project	B	Transmission Lines and Distribution Systems
BANGLADESH	Grid Substations and Associated Transmission Lines Development Project	B	Transmission Lines and Distribution Systems
MOROCCO	Rural Electrification Project(III)	B	Transmission Lines and Distribution Systems
LAO PDR	Greater Mekong Power Network Development Project(Lao PDR)	B	Transmission Lines and Distribution Systems
INDIA	Transmission System Modernization and Strengthening Project in Hyderabad Metropolitan Area	B	Transmission Lines and Distribution Systems
SRI LANKA	Vavuniya-Kilinochchi Transmission Line Project	C	Transmission Lines and Distribution Systems
INDIA	Bangalore Distribution Upgradation Project	C	Transmission Lines and Distribution Systems
TUNISIA	Photovoltaic Rural Electrification and Water Supply Project	B	Others
PAKISTAN	Load Dispatch System Upgrade Project	B	Others
INDONESIA	PLN Operation Improvement System Project for Supporting Generation Facilities	C	Others
CHINA	Baotou Atmospheric Environmental Improvement Project	B	Gas

(2) Transportation

COUNTRY	PROJECT NAME	CATEGORY	SUB-SECTOR
INDONESIA	Tanjung Priok Access Road Construction Project (I)	A	Roads
INDONESIA	Tanjung Priok Access Road Construction Project(II)	A	Roads
GUATEMALA	ZONAPAZ Road Improvement Project	A	Roads
SENEGAL	Road Improvement and Transport Facilitation Program on the Southbound Bamako-Dakar Corridor under EPSA for Africa	A	Roads
TANZANIA	Arusha-Namanga-Athi River Road Development Project	A	Roads
PAKISTAN	Indus Highway Construction Project (III)	A	Roads
VIET NAM	New National Highway No. 3 and Regional Road Network Construction Project Section Hanoi-Thai Nguyen (I)	A	Roads
MOZAMBIQUE	Montepuez-Lichinga Road Project	A	Roads

MOROCCO	Marrakech - Agadir Motorway Construction Project	A	Roads
SRI LANKA	Pro-Poor Eastern Infrastructure Development Project	B	Roads
VIET NAM	Northern Vietnam National Roads Traffic Safety Improvement Project	B	Roads
INDIA	Delhi Mass Rapid Transport System Project (Phase 2)(I)	A	Railways
INDIA	Bangalore Metro Rail Project	A	Railways
INDIA	Delhi Mass Rapid Transport System Project Phase 2 (II)	A	Railways
VIET NAM	Ho Chi Minh City Urban Railway Construction Project (Ben Thanh - Suoi Tien Section (Line 1)) (I)	A	Railways
INDONESIA	Jakarta Mass Rapid Transit System Project (E/S)	B	Railways
INDONESIA	Railway Double Tracking on Java South Line Project (III) (E/S)	B	Railways
VIET NAM	Nhat Tan Bridge (Vietnam- Japan Friendship Bridge) Construction Project (I)	A	Bridges
SRI LANKA	The Galle Port Development Project (I)	A	Ports
INDIA	Visakhapatnam Port Expansion Project	A	Ports
INDIA	Visakhapatnam Port Expansion Project (Engineering Services)	B	Ports
MALDIVES	Maldives Tsunami Reconstruction Project	B	Ports

(3) Telecommunications

COUNTRY	PROJECT NAME	CATEGORY	SUB-SECTOR
CAMBODIA	Greater Mekong Telecommunication Backbone Network Project	B	Telecommunications
BANGLADESH	Telecommunication Network Development Project	B	Telecommunications
VIET NAM	Rural Community Internet Use Development Project	B	Telecommunications
TUNISIA	National Television Broadcasting Center Project	C	Broadcasting

(4) Irrigation and Flood Control

COUNTRY	PROJECT NAME	CATEGORY	SUB-SECTOR
INDONESIA	Integrated Water Resources and Flood Management Project for Semarang	A	Flood Control
VIET NAM	Phan Ri - Phan Thiet Irrigation Project	A	Irrigation
INDONESIA	Urgent Disaster Reduction Project for Mt. Merapi/Progo River Basin and Mt. Bawakaraeng	B	Disaster prevention
INDIA	Swan River Integrated Watershed Management Project	B	River Basin Conservation
MOROCCO	Watershed Management Project	B	River Basin Conservation
TUNISIA	Water Saving Agriculture Project in Southern Oasis Area	B	Channel development
INDIA	Andhra Pradesh Irrigation and Livelihood Improvement Project	B	Irrigation
PAKISTAN	Lower Chenab Canal System Rehabilitation Project	B	Irrigation
INDIA	Rajasthan Minor Irrigation Improvement Project	FI	Irrigation
PERU	Irrigation Sub-Sector Project	FI	River Basin Conservation

(5) Agriculture, Forestry and Fisheries

COUNTRY	PROJECT NAME	CATEGORY	SUB-SECTOR
INDIA	Orissa Forestry Sector Development Project	B	Forestry
INDIA	Tripura Forest Environmental Improvement and Poverty Alleviation Project	B	Forestry
INDIA	Gujarat Forestry Development Project Phase 2	B	Forestry
CHINA	Eco-environmental Construction and General Treatment Project of the Yangtze Upper Reaches in Sichuan Province	B	Forestry
CHINA	Henan Province Afforestation Project	B	Forestry
CHINA	Jilin Afforestation Project	B	Forestry

(6) Mining and Manufacturing

COUNTRY	PROJECT NAME	CATEGORY	SUB-SECTOR
VIET NAM	Vinh Phuc Province Investment Climate Improvement Project	A	Manufacturing
CAMBODIA	Sihanoukville Port SEZ Development Project (E/S)	B	Manufacturing
TUNISIA	Private Investment Credit Project	FI	Manufacturing
VIET NAM	Small and Medium-Sized Enterprizes Finance Project (II)	FI	Manufacturing
MONGOLIA	Two-Step-Loan Project for Small and Medium-Scaled Enterprises Development and Environmental Protection	FI	Manufacturing

(7) Social Services

COUNTRY	PROJECT NAME	CATEGORY	SUB-SECTOR
VIET NAM	Hai Phong City Environment Improvement Project (I)	A	Water Supply, Sewerage and Sanitation
INDIA	Hussain Sagar Lake and Catchment Area Improvement Project	A	Water Supply, Sewerage and Sanitation
INDIA	Ganga Action Plan Project (Varanasi)	B	Water Supply, Sewerage and Sanitation
INDIA	Kolkata Solid Waste Management Improvement Project	B	Water Supply, Sewerage and Sanitation
INDIA	Agra Water Supply Project	B	Water Supply, Sewerage and Sanitation
INDIA	Amritsar Sewerage Project	B	Water Supply, Sewerage and Sanitation
INDIA	Orissa Integrated Sanitation Improvement Project	B	Water Supply, Sewerage and Sanitation
COSTA RICA	Metropolitan San Jose Environment Improvement Project	B	Water Supply, Sewerage and Sanitation
SRI LANKA	Water Sector Development Project	B	Water Supply, Sewerage and Sanitation
TUNISIA	Jendouba Rural Water Supply Project	B	Water Supply, Sewerage and Sanitation
BANGLADESH	Karnaphuli Water Supply Project	B	Water Supply, Sewerage and Sanitation
VIET NAM	2nd Hanoi Drainage Project for Environmental Improvement(I)	B	Water Supply, Sewerage and Sanitation
VIET NAM	2nd Ho Chi Minh City Water Environment Improvement Project(I)	B	Water Supply, Sewerage and Sanitation
VIET NAM	Southern Binh Duong Province Water Environment Improvement Project	B	Water Supply, Sewerage and Sanitation
MOROCCO	Sewerage System Development Project	B	Water Supply, Sewerage and Sanitation
MOROCCO	Sewerage System Development Project(II)	B	Water Supply, Sewerage and Sanitation
CHINA	Changsha Diversion Works and Water Quality Environmental Project	B	Water Supply, Sewerage and Sanitation
CHINA	Yunnan Province Kunming City Water Environment Improvement Project (I)	B	Water Supply, Sewerage and Sanitation
CHINA	Heilongjiang Province Harbin City Water Environment Improvement Project	B	Water Supply, Sewerage and Sanitation
CHINA	Guangxi Zhuang Autonomous Region Yulin City Water Environment Improvement Project	B	Water Supply, Sewerage and Sanitation
CHINA	Yunnan Kunming Water Environmental Improvement Project (II)	B	Water Supply, Sewerage and Sanitation
CHINA	Ningxia Water Environmental Improvement Project	B	Water Supply, Sewerage and Sanitation
CHINA	Sichuan Water Environmental Improvement Project	B	Water Supply, Sewerage and Sanitation
CHINA	Anhui Water Environmental Improvement Project	B	Water Supply, Sewerage and Sanitation
CHINA	Xinjiang Uygur Autonomous Region Yining City Comprehensive Environmental Renovation Project	B	Environmental Conservation in Multisector
CHINA	Guiyang Environmental Improvement Project	B	Environmental Conservation in Multisector
CHINA	Inner Mongolia Autonomous Region Hohhot City Atmospheric Environment Improvement Project	B	Environmental Conservation in Multisector
CHINA	Jilin Province Jilin City Comprehensive Environment Improvement Project	B	Environmental Conservation in Multisector
CHINA	Xinjiang Environmental Improvement Project (I)	B	Environmental Conservation in Multisector

CHINA	Inner Mongolia Huhhot Atmospheric Environmental Improvement Project II	B	Environmental Conservation in Multisector
EGYPT	Environmental Pollution Abatement Project	FI	Environmental Conservation in Multisector
INDONESIA	Development of Faculty of Medicine and Health Sciences of Syarif Hidayatullah State Islamic University	B	Education
INDONESIA	Hasanuddin University Engineering Faculty Development	B	Education
TUNISIA	Borj Cedria Science and Technology Park Development Project	B	Education
CHINA	Higher Education Project (Liaoning Province)	B	Education
CHINA	Higher Education Project (Hebei Province)	B	Education
CHINA	Higher Education Project (Hainan Province)	B	Education
INDONESIA	ICT Utilization Project for Educational Quality Enhancement in Yogyakarta Province	C	Education
VIET NAM	Higher Education Development Support Project on ICT	C	Education
MALAYSIA	Higher Education Loan Fund Project (III)	C	Education
MOROCCO	Urban Areas Living Environment Improvement Project	A	Urban/Rural Community Infrastructure
SRI LANKA	Pro-Poor Rural Development Project	B	Urban/Rural Community Infrastructure
BANGLADESH	Eastern Bangladesh Rural Infrastructure Development Project	B	Urban/Rural Community Infrastructure
VIET NAM	Small-Scale Pro Poor Infrastructure Development Project(II)	B	Urban/Rural Community Infrastructure
CHINA	Guizhou Province Environment Improvement and Education Project	B	Urban/Rural Community Infrastructure
INDONESIA	Regional Infrastructure for Social and Economic Development	FI	Urban/Rural Community Infrastructure
EGYPT	Grand Egyptian Museum Construction Project	B	Tourism
SRI LANKA	Tourism Resources Improvement Project	B	Tourism
VIET NAM	Regional and Provincial Hospital Development Project	B	Public Health and Medicine
INDONESIA	Professional Human Resource Development Project (III)	C	Strengthening of Administrative Management
INDONESIA	National Geo-Spatial Data Infrastructure Development Project	C	Strengthening of Administrative Management
SRI LANKA	Sri Lanka Tsunami Affected Area Recovery and Takeoff Project	FI	Ohters
INDONESIA	Aceh Reconstruction Project	FI	Ohters

(8) Non-project Loans

COUNTRY	PROJECT NAME	CATEGORY	SUB-SECTOR
INDONESIA	Development Policy Loan	C	Commodity Loans
INDONESIA	Development Policy Loan (II)	C	Commodity Loans
INDONESIA	Development Policy Loan (III)	C	Commodity Loans
INDONESIA	Infrastructure Reform Sector Development Program	C	Commodity Loans
TANZANIA	Fourth Poverty Reduction Support Credit	C	Commodity Loans
PAKISTAN	Emergency Earthquake Recovery Loan	C	Commodity Loans
VIET NAM	Third Poverty Reduction Support Credit	C	Commodity Loans
VIET NAM	Fourth Poverty Reduction Support Credit	C	Commodity Loans
VIET NAM	Fifth Poverty Reduction Support Credit	C	Commodity Loans
LAO PDR	Second Poverty Reduction Support Operation	C	Commodity Loans