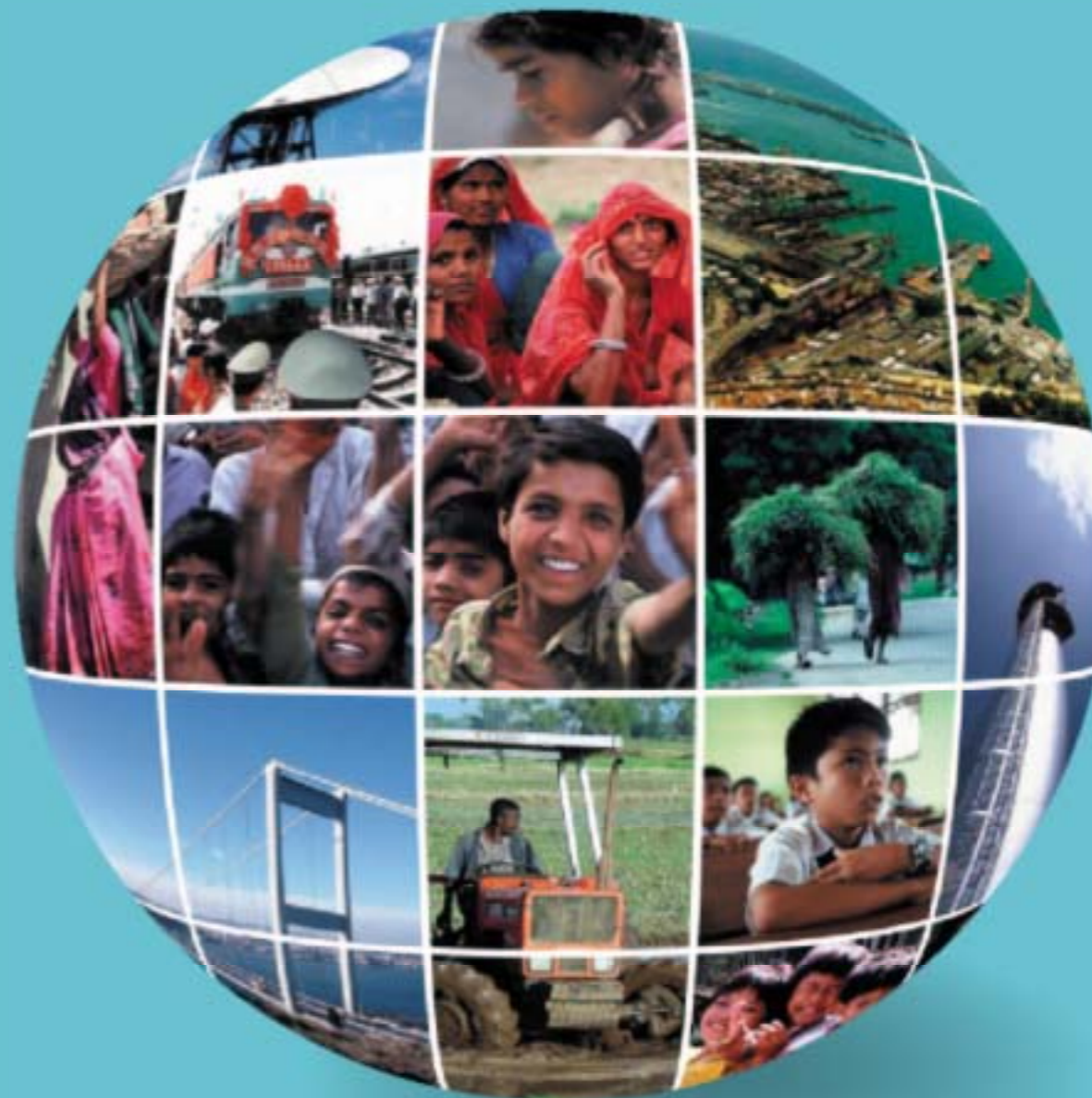


# Operational Guidance on the Preparation for Japan's ODA Loan Projects



**JBIC**

**JAPAN BANK FOR INTERNATIONAL COOPERATION**

4-1, OHTEMACHI 1-CHOME CHIYODA-KU, TOKYO 100-8144, JAPAN



**JBIC**

**JAPAN  
BANK FOR  
INTERNATIONAL  
COOPERATION**

# PREFACE

The Japan Bank for International Cooperation (JBIC) is a government agency conducting policy-based lending and other financial operations. Its operations have two components: International Financial Operations (IFOs) support Japanese exports, imports and overseas investment activities, while Overseas Economic Cooperation Operations (OECOs), which constitute part of Japan's official development assistance (ODA) activities, support economic and social development in developing countries. OECOs provide concessional ODA loans based on the ODA Charter adopted by the Government of Japan and the Medium-Term Strategy for Overseas Economic Cooperation Operations set out by JBIC in line with the Government's medium- and long-term ODA policy.

The purpose of **the Operational Guidance for the Preparation of the Projects Financed by Japan's ODA Loans (the ODA Loan Operational Guidance)** is to provide necessary information and describe the ODA loan process to developing country governments as they make preparations for the projects financed by ODA loans and make loan requests to the Government of Japan.

**The ODA Loan Operational Guidance** illustrates the project cycle of ODA loans with a detailed account of JBIC's project appraisal process. This booklet was produced to enable a broader spectrum of people to gain a comprehensive understanding of the information and analytical techniques required in the identification and preparation of ODA loan-financed projects and in the appraisal process of JBIC.

It is hoped that this booklet will serve as a useful reference to all the development practitioners involved in ODA loan-financed projects.

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# I. JAPAN'S ODA LOANS

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This chapter, which serves as an introduction to the following chapters, provides an overview of Japan's ODA loans, including their types, terms and financing criteria.

## 1. Outline

Since 1966, JBIC has provided concessional loans for developing country governments and government agencies to support social and economic development in its Overseas Economic Cooperation Operations to advance overseas economic cooperation.

Developing countries are striving to make progress in development in a wide range of sectors, including power, agriculture, transportation and education. However, they frequently face difficulties in implementing their development plans and projects because of financial and other constraints. JBIC has been supporting their self-help efforts by providing long-term, low-interest loans for development projects and plans that are difficult to obtain financing in the private sector.

## 2. Types of ODA Loans

Japan's ODA loans may be broadly divided into the following two types:

### (1) Project Loans

Project loans provide funds for facilities, materials and equipment, civil works, consulting services for development projects in such areas as roads, power, irrigation, telecommunications, afforestation, water supply, sewerage and pollution prevention.

### (2) Non-Project Loans

Non-project loans provide funds for improving the balance of payments and implementing development plans and structural adjustment programs rather than financing specific projects. Examples include a loan financing the import of specific commodities agreed upon in

advance by the two governments, such as capital goods or raw materials in the industrial sector and capital goods in the agricultural sector, and a loan for supporting macroeconomic stabilization.

## 3. Terms and Conditions of ODA Loans

### (1) Interest Rates and Repayment Periods

The interest rates and repayment periods of ODA loans are determined by the Government of Japan. The average interest rate of loans provided in fiscal 2002 was 1.52%. The average repayment period was 33 years and 1 month (including a grace period of 9 years and 9 months). JBIC applies preferential terms to specially designated sectors, such as the environment and human resource development, and a specific portion of the loans, such as consulting services. The standard terms are 0.75% interest rate with a repayment period of 40 years (including a 10-year grace period). Special Terms for Economic Partnership (STEP) was introduced to raise the visibility of Japan's ODA to the citizens of the recipient countries and Japan through utilizing and transferring excellent technologies and know-how of Japanese firms. The standard terms are 0.40% interest rate with a repayment period of 40 years (including 10 year grace period). The most recent interest rates are published in the latest Annual Report and may also be obtained at the JBIC website (<http://www.jbic.go.jp>).

### (2) Procurement Conditions

The countries from which the borrower of an ODA loan (the Borrower) may procure goods and services are determined by procurement



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conditions. The Government of Japan determines procurement conditions of ODA loans on a case-by-case basis based on the following four categories:

① General Untied

The Borrower may procure goods and services from all countries and areas.

② Partially Untied

The countries eligible for procurement under the loan are: developing countries (including the countries on the DAC Part II List) and Japan.

③ Bilateral Tied

The countries eligible for procurement under the loan are: the recipient country and Japan.

④ Tied

The only country eligible for procurement under the loan is Japan. e.g. STEP

In fiscal 2002, general untied, bilateral tied and tied loans respectively accounted for 88.1%, 3.5% and 8.5% of all the ODA loans commitments.

#### 4. Fixed-Percentage Financing Criteria

Developing countries often find it difficult to make public investments due to their domestic budgetary constraints. To meet part of local currency funding needs, JBIC introduced fixed-percentage financing criteria in fiscal 1989.

The criteria set a certain percentage of the total project cost as the upper limit of ODA loan financing regardless of the distinction between foreign and domestic currency components in the total project cost. The percentage may vary depending on per capita GNI in the borrowing country.

However, when the proportion of foreign currency component in the total project cost is greater than the percentage of ODA loan financing set by the criteria, the foreign currency cost, in principle, becomes the maximum amount of an ODA loan to be provided for the project.



## II. PROJECT CYCLE

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This chapter describes Japan's ODA loan project cycle. The project cycle, in general, consists of a series of similar procedures followed by other donors. However, some of the steps described below are unique to ODA loans.

ODA loans usually follow a sequence of standard procedures. They are: project identification, preparation, appraisal, ex-ante evaluation, prior notification, exchange of notes, loan negotiation, loan agreement, project implementation and supervision, ex-post evaluation and monitoring after project completion. The lessons learned from ex-post evaluation and monitoring after project completion provide useful information, and are fed back to the preparation, appraisal and implementation of future projects. Thus the whole series of procedures forming the circle is called the project cycle.

Each step of the project cycle corresponding to the ODA loan process was described below and the overview of these steps was shown in Figure 1.

### 1. Identification

Project identification is the first stage of the project cycle. Initially, projects that meet key development needs are identified. Then individual project concepts go through screening. As a result of this screening, a decision is made as to whether an identified project should proceed to project formation. Project concepts may originate from a number of sources, including the government of the country seeking ODA loan financing (the Borrowing Country Government), its regional government, bilateral or multilateral aid agencies and the private sector. Some projects are identified in the course of the analysis and study of the development plan for a specific region or sector, or from a master plan (M/P) that may consist of several potential projects. In any case, projects should be selected in line with the development goals, strategy and needs of the borrowing country.

JBIC frequently conducts studies on macro-economic developments of developing countries, examining individual sectors' agenda and their significance in national development, as well as on their development strategies. Policy dialogues are often held with their governments and bilateral/multilateral aid agencies. JBIC also sends a fact-finding (F/F) mission, if necessary, to conduct initial analysis and study

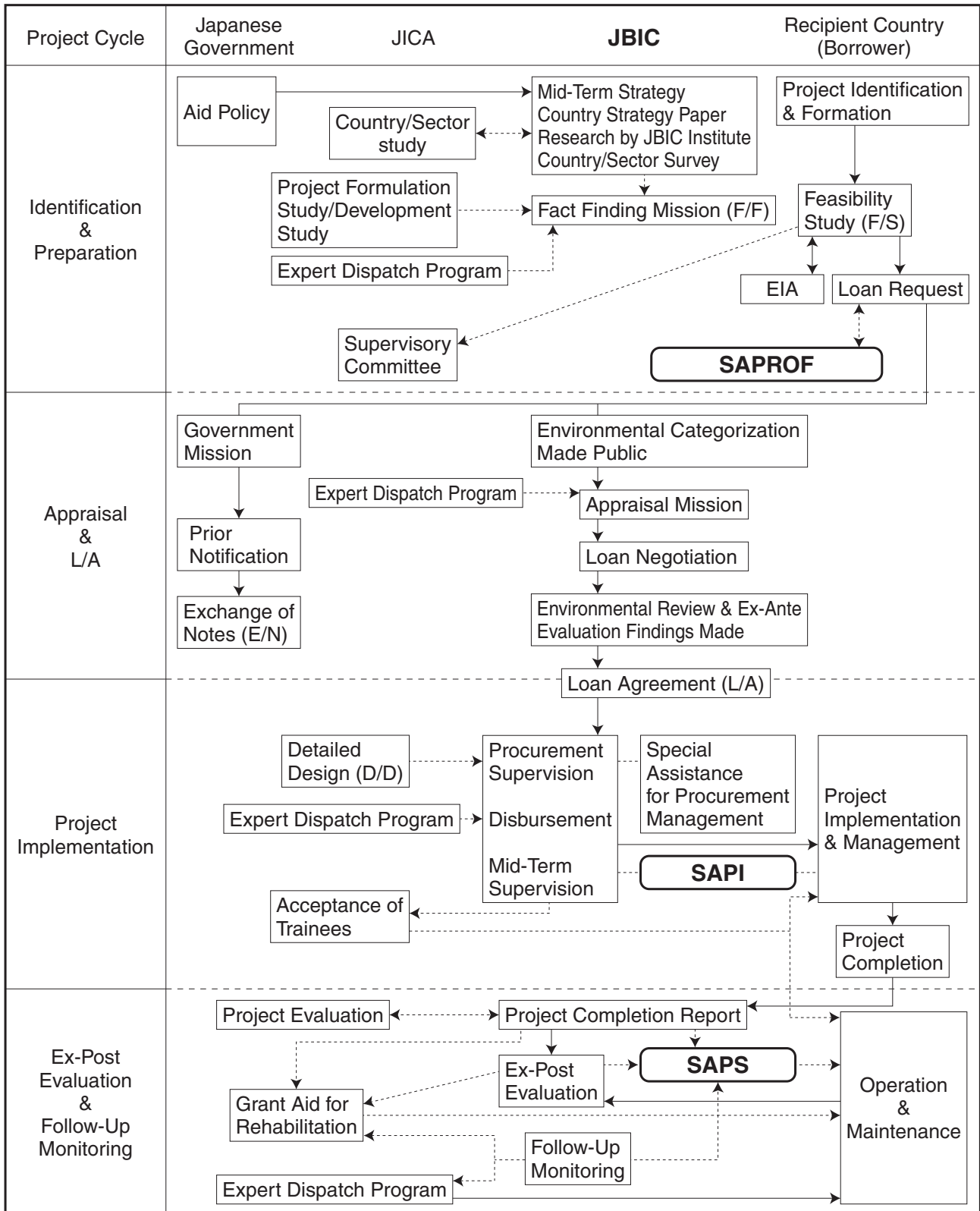
on identified projects in preparation for possible future financing.

### 2. Preparation

In the preparation stage that follows, pre-investment studies are conducted for the project selected in the identification stage in order to bring the project to the level of maturity amenable to appraisal by JBIC. These studies for project formation usually take the form of feasibility studies and are carried out by the Borrowing Country Government, or by bilateral/multilateral aid agencies, private firms or official institutions. Aid agencies sometimes provide technical cooperation and funding for them. The feasibility study (F/S) involves more detailed examination of the project's economic, social, financial and technical feasibility, and its environmental impacts (including comparison with alternatives).

The Japan International Cooperation Agency (JICA), a Japanese aid agency, conducts feasibility studies (F/S) and prepares master plans (M/P) that lay down the basis for project formation as part of its grant-funded technical cooperation activities. In addition, JBIC conducts studies funded by a facility called the Special Assistance for Project Formation (SAPROF), one type of its Special Assistance

**Figure 1. Project Cycle and ODA Loan Procedures**



(Note) SAPROF: Special Assistance for Project Formation  
 SAPI: Special Assistance for Project Implementation  
 SAPS: Special Assistance for Project Sustainability

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Facility (SAF), to assist the borrowing country in project formation. SAPROF studies are described in Chapter III.

Once the feasibility study has been conducted and its findings have been approved by the Borrowing Country Government, it makes a request to the Government of Japan for an ODA loan. The request, accompanied by the feasibility study report and the project implementation program (I/P), should be submitted through the Japanese Embassy in the borrowing country. In parallel, the environmental screening form for the project should be submitted to JBIC as well. The Borrowing Country Government should take care to ensure that the feasibility study covers all the information required for the appraisal conducted by JBIC (as described in Chapter IV and V).

In particular, if the project is likely to have a significant impact on the environment, Environmental Impact Assessment (EIA) should be conducted, and the EIA report should be submitted to JBIC prior to appraisal by JBIC. Details of procedures regarding environmental issues are described in Section 1 (3) of Chapter IV (see P.13) and Section 10 of Chapter V (see p.26) as well as *JBIC Guidelines for Confirmation of Environmental and Social Considerations (the Environmental Guidelines)*.

### 3. Appraisal and Ex-Ante Evaluation

JBIC conducts appraisal for the well-prepared project for which a request for ODA loan has been made. The appraisal proceeds in the following steps:

- ① JBIC reviews the feasibility studies (F/S) of the project and the relevant information obtained through sector studies and fact-finding missions.
- ② JBIC recommends the project suitable for appraisal to the Government of Japan (specifically the Ministry of Foreign Affairs, the Ministry of Finance and the Ministry of Economy, Trade and Industry).
- ③ The Government of Japan formally approves that appraisal be conducted for the proposed project and informs the Borrowing Country Government through diplomatic channels or by sending a government mission.
- ④ JBIC discloses the environmental category classification of the project at its website in accordance with *the Environmental Guidelines*.
- ⑤ The Government of Japan then sends a mission to the borrowing country and engages in comprehensive discussions from a broader perspective of national development, including macroeconomic conditions and the relevance of the project in the country's development policies and plan.
- ⑥ JBIC sends an appraisal mission to confirm the viability of the project by examining economic, social, financial, technical and environmental aspects of the proposed project, as well as the operation, maintenance and monitoring systems of the project executing agency (the Executing Agency). The appraisal mission engages in detailed discussions with the Borrowing Country Government, while conducting a field survey of the project site.
- ⑦ Based on the results of the appraisal by JBIC, the Government of Japan makes a decision as to whether the project is suitable for ODA loan financing, and determines the loan amount and terms.

JBIC discloses the results of its environmental review (undertaken in accordance with *the Environmental Guidelines*) as well as the ex-ante evaluation report of the project at its website swiftly after signing the loan agreement.

### 4. Prior Notification, Exchange of Notes and Loan Agreement

The Government of Japan notifies the Borrowing Country Government its decision to extend an ODA loan at a consultative group meeting, in other international conferences or



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through the Japanese embassy in the borrowing country. This is called prior notification. Afterwards, the two governments enter into negotiations for a formal agreement. When agreement is reached, the two governments exchange notes confirming the matters agreed upon. Stipulated in the exchange of notes (E/N) are the name of the project, the amount and terms of the loan and other bilateral issues such as tax treatment or marine insurance.

JBIC then embarks on negotiations for a loan agreement with the Borrower (which may be the Borrowing Country Government, a government agency or other entities). The loan agreement, by which JBIC makes its financing commitment, set forth legal rights and obligations pertaining to the loan, laying out details of the loan amount, terms and conditions, the purpose, scope and content of the project, the Executing Agency, procurement conditions, disbursement procedures and General Terms and Conditions for ODA Loans (GTC).

## 5. Procurement and Disbursement

After the loan agreement is signed, the project enters the implementation stage. First, consultants are hired. They provide services for engineering design, supervision of implementation and capacity building of the Executing Agency and other entities involved in the project. Consulting services play an important role in ensuring the efficient and effective preparation and implementation of the project. Consultants are employed based on the international practice of the “short list method” in accordance with JBIC’s *Guidelines for the Employment of Consultants under JBIC ODA Loans*. Under the short list method, one consulting firm is selected after assessing the proposals submitted by 3 to 5 designated firms that have an international reputation for competence and experience. In some cases, detailed design (D/D) may be done with JICA’s technical assistance.

Procurement of goods and services for project implementation should follow, in principle, international competitive bidding (ICB) in line with the JBIC’s *Guidelines for Procurement under JBIC ODA Loans*, which stipulate policies and procedures with regard to pre-qualification (P/Q), bidding documents, tender evaluation and contracts based on the principle of economy, efficiency, transparency and non-discrimination. JBIC reviews these procurement procedures based on provisions in the loan agreement in order to ensure that a project will be implemented by a well-qualified and competent contractor.

The two sets of Guidelines above were revised in October 1999.

In addition, JBIC sets Sample Bidding Documents for various types of goods and services as well as Evaluation Guide for Prequalification and Bidding under JBIC ODA loans. JBIC recommends the Borrowing Country Government to use these documents for smooth implementation of procurement procedures.

Disbursement of loan proceeds is made with the progress in implementation and in response to a request for disbursement from the Borrowing Country Government.

## 6. Supervision of Implementation

During implementation of the project, JBIC monitors its progress, conferring with the Borrowing Country Government, where necessary, with a view to ensuring the smooth and efficient implementation of the project. JBIC’s supervision covers both the implementation of the project (including physical construction, engineering, and institutional development of the relevant environmental regulatory agency and beneficiary groups) and the overall loan process (including effectuation of the loan agreement, procurement, disbursement, payment of interest and repayment of the principal). In some projects, JICA may provide ad-

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vice and guidance by dispatching experts to the project site or hold training sessions in order to improve institutional capacities and develop human resources for project implementation.

JBIC reviews the progress in implementation by sending supervision missions and discusses with the Executing Agency and the relevant higher authorities to solve any problems emerged or to take necessary measures to address them in a timely and effective manner. The periodic progress report on implementation, required under the loan agreement and prepared by the Executing Agency, serves to identify, at an early stage, any problem that may arise in the course of project implementation.

JBIC may conduct a study by the Special Assistance for Project Implementation (SAPI), or SAPI study, to assist the Borrowing Country Government in implementing and supervising the project effectively and efficiently. This facility is one type of the Special Assistance Facility (SAF) of JBIC, and a SAPI study may be used to address obstacles and problems affecting project implementation.

## **7. Ex-Post Evaluation**

Upon completion of the project, JBIC undertakes ex-post evaluation by reviewing the entire process of appraisal, implementation, and operation and maintenance. Based on such review, ex-post evaluation assesses the performance of the project relative to the initial plan, including the scope and extent of its benefits and impacts, and considers whatever issues for improving performance. This is done based on the project completion report (PCR) to be submitted by the Borrowing Country Government as required by the loan agreement.

## **8. Monitoring after Completion**

JBIC draws lessons for operating the completed project from ex-post evaluation. JBIC

monitors the operation and maintenance of the project for a certain period in order to ensure effective operation and maintenance and to sustain project benefits over the medium and long term. If ex-post evaluation or follow-up monitoring identifies improvements needed in operation and maintenance, appropriate advice may be provided by JBIC. JICA experts may also give guidance and advice, where necessary. Furthermore, JBIC may conduct a study by the Special Assistance for Project Sustainability (SAPS), one type of the Special Assistance Facility (SAF), where necessary. This SAPS study undertakes an intensive examination of obstacles or constraints hindering the effective operation and maintenance of the project and makes recommendations on necessary measures for improvements.

In the case where changing circumstances require additional financing, for example, for rehabilitation of project facilities in the course of project operation and maintenance after its completion or where the urgency, profitability and scale of such assistance make it difficult for an ODA loan to deal with such situation, grant assistance may be extended for additional funding by the Government of Japan (grant assistance for rehabilitation).

## **9. Feedback to Project Preparation and Appraisal**

Findings of the monitoring and supervision of project implementation, ex-post evaluation and monitoring after project completion are fed back to other similar projects in the initial stages of the project cycle as lessons learned from the project. If problems or difficulties arise in project implementation or operation and maintenance, technical assistance is needed, the Borrowing Country Government is required to report to and consult with JBIC on this matter. Recommending remedial measures based on problems identified in SAPI and SAPS studies facilitates this feedback process.

# III. IDENTIFICATION AND PREPARATION OF PROJECTS

Because of the crucial importance of project identification and preparation in enabling JBIC to conduct appraisal, this chapter describes in more detail their procedures, including the preparation of the request for an ODA loan. Project identification and preparation should be carried out based on the points described below. JBIC conducts appraisal by considering these points.

## 1. General Sequence

### (1) Project Identification

Identification, the first stage of the project cycle, is a crucially important process leading to the initial screening of projects.

Project identification generally consists of the following steps:

- ① Propose measures to solve major problems identified in the development strategy and to meet diverse development needs, while setting clear project objectives and identifying target groups receiving benefits from the project;
- ② Establish the project concept (together with alternative plans) that will effectively serve to achieve the country's development objectives;
- ③ Assess the priority or urgency of the project in the context of the country's economic and social development plan and sector investment program;
- ④ Examine consistency with the master plan (M/P) and the regional development plan;
- ⑤ Consider the adequacy of the Executing Agency and the possibility of private-sector participation in the project;
- ⑥ Estimate approximate project cost (together with the cost of alternatives) based on the conceptual design; and
- ⑦ Make preliminary assessment of the feasibility of the project and its impacts on the country, its specific region or sector.

Projects are usually identified by the following entities:

- ① Government agencies preparing the national, regional or sectoral development

plan;

- ② Bilateral or multilateral aid agencies conducting country economic/sector studies or ex-post evaluation of completed projects; and
- ③ Public or private-sector entities in the country or donor countries, municipalities, local residents, non-governmental organizations (NGOs), academics and others conducting a project.

### (2) Project Preparation

Project preparation brings a project plan to the point amenable to appraisal. In other words, the level of maturity where it is possible to determine whether the project may be effectively implemented (and if so, how it might be implemented), whether the project cost is acceptable when considering its spillover effects on economic and social development, and whether the project is environmentally sound.



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## 2. Feasibility Study

The feasibility study (F/S) analyzes the economic and technical aspects as well as financial viability of the project. The results of the F/S are contained in the feasibility study report, which provides essential basic material for the prospective Executing Agency and other relevant organizations, as they decide whether the project should be implemented. The feasibility study report must be prepared based on a thorough and extensive study carried out to internationally accepted standards.

### (1) Information Contained in the Feasibility Study Report

The feasibility study report usually covers the following items, though its focus may differ, depending on the nature of the project. If an ODA loan is to be provided, the report must contain fully and clearly the items JBIC covers in its appraisal. Thus, the feasibility study report for a project seeking Japan's ODA loan should be prepared with due consideration for the principles underlying JBIC's project appraisal as stated in Chapter V (see p. 16).

- ① Background of the project, including recent economic developments in the country and the target sector, information on the project site and surrounding areas, and how the project has been formed, etc.;
- ② Major policy issues regarding the target sector (including tariffs, subsidies, sector reform, and privatisation) and the government's response and policies toward that sector;
- ③ Objectives of the project;
- ④ Analysis of the necessity of the project, including supply-and-demand analysis and the relative priority of the project in the country's national/regional economic development or sector development plan;
- ⑤ Detailed comparison with various poten-

tially viable alternatives;

- ⑥ Detailed description of the project, including the scope of the project and project site;
- ⑦ Preliminary engineering design and analysis of technical feasibility by taking into account natural resources, project site conditions, availability of materials and labor, and possible construction methods;
- ⑧ Estimate of the project cost, including foreign and local currency components and financing plan;
- ⑨ Implementation schedule;
- ⑩ Institutional arrangements for project implementation as well as operation and maintenance system;
- ⑪ Institutional arrangements for implementation regarding the Executing Agency and other relevant organizations, including analysis of their technical and financial capabilities and the need for assistance by consultants;
- ⑫ Evaluation of the technical soundness, economic and financial viability of the project;
- ⑬ Evaluation of environmental and social impacts, including the aspect of women in development and gender, and mitigation measures (environmental impacts should be carefully reviewed by EIA);
- ⑭ Foreseen project risks; and
- ⑮ Recommendations and required steps for project implementation (e.g. government approval for the project or EIA for the project, land acquisition, planning for resettlement of the project affected people, etc.), if any.

### (2) Japan's Technical Assistance to F/S

The F/S is generally carried out by the Borrowing Country Government or by qualified consultants employed by it, donor country governments or bilateral and multilateral aid agencies. In cases where the Borrowing Country Government finds it difficult to carry

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out the F/S, due to technical and/or financial reasons, the Government of Japan may provide the following types of assistance upon request from the Borrowing Country Government:

- ① Grant-funded technical assistance from the Japan International Cooperation Agency (JICA);
- ② Grant-funded technical assistance from Japanese semi-governmental organizations having expertise on project formation.

### **3. Environmental Impact Assessment (EIA)**

Environmental Impact Assessment (EIA) is a procedure where a project proponent assesses environmental impacts of the proposed project and considers mitigation measures in the project preparation stage. Although many countries have their own regulations on EIA, EIA generally takes the following steps:

- ① Screening: Determine whether a full-scale EIA is required, depending on the likely extent of environmental impacts.
- ② Scoping: Identify types of environmental

impacts to be assessed, while taking into account alternatives to be considered. It is desirable to seek opinions from the stakeholders.

- ③ Detailed Study: Examine the present environmental situation, forecast and evaluate environmental impacts caused by the proposed project. Consider necessary mitigation measures (including alternatives).
- ④ Documentation: Compile the information obtained into an EIA report.
- ⑤ Review: Finalize the EIA report after consultations with the stakeholders and review by the environmental authority.
- ⑥ Monitoring and Management: Conduct environmental monitoring and management based on the appropriate environmental management plan.

Since consultations with the relevant organizations and the stakeholders are held throughout the steps described above and their results may force modifications in the project plan and design, EIA usually takes place in parallel with the planning process of the project.





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## 4. Special Assistance for Project Formation (SAPROF)

### (1) Background

Adequate preparation is an essential prerequisite for successful implementation of any development project.

Even where the feasibility study has been completed, JBIC sometimes finds its results not adequate for making a decision on ODA loan financing. The Borrowing Country Government may also have difficulties in completing adequate project preparation because of some constraints and lack of necessary resources.

### (2) Objectives of SAPROF

JBIC conducts studies by the Special Assistance for Project Formation (SAPROF), one type of the Special Assistance Facility (SAF), or SPROF studies, to prepare the implementation plan for a project in the Borrowing Country Government. A SAPROF study aims at complementing project formation with support from JBIC. In principle, it is carried out based on the following criteria:

- ① A request for an ODA loan has already been submitted or such intention has been expressed;
- ② Although the project is found to be basically feasible, the preparation and analysis based on the feasibility study do not meet JBIC's project appraisal criteria;
- ③ The Borrowing Country Government confirms its strong intention to utilize the SAPROF study.

### (3) Examples of SAPROF Studies

SAPROF studies may take place in the following cases:

- ① The F/S for the project needs to be updated;
- ② Specific parts of the preparation and analysis by the F/S are inadequate, as in the case

where institutional setup in the borrowing country has to be adjusted or institutional arrangements of operation and maintenance should be put in place;

- ③ Analysis of the country's economic and social development plan is inadequate;
- ④ The project consists of multiple small-or medium-scale subprojects, and the preparation of the implementation program as package is inadequate; and
- ⑤ Environmental consideration or analysis of the social aspect is inadequate.

### (4) Implementation Procedures

Typically, a SAPROF study is conducted by taking the follow steps:

- ① The site of the planned project where the SAPROF study will be conducted is determined, usually by JBIC's fact-finding mission, through appraisal or by the Borrowing Country Government;
- ② JBIC and the Borrowing Country Government discuss the SAPROF study to be conducted, including its necessary scope;
- ③ JBIC and the Borrowing Country Government agree on conducting the SAPROF study;
- ④ JBIC employs consultants for the SAPROF study (the SAPROF team);
- ⑤ The SAPROF team conducts a study in the field and reports its findings to JBIC;
- ⑥ JBIC informs the Borrowing Country Government on the results of this study (usually in the form of the final SAPROF study report).

The steps from ① through ⑥ usually take a few months to one year.

### (5) Others

It should be noted that while conducting the SAPROF study may lead to the completion of preparations for project appraisal, it does not imply a decision or commitment regarding the

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provision of an ODA loan.

## 5. Preparation of Loan Request

The Borrowing Country Government requests the Government of Japan for Japan's ODA loan through the Japanese Embassy in its country. The most important document which must accompany the request is the feasibility study report, as well as the EIA report in the case of a Category A project under *the Environmental Guidelines* (see Section 1 (3) of Chapter IV (p. 13) and Section 10 of Chapter V (p. 26)), as they give the Japanese government and JBIC necessary information for project appraisal.

In addition to the feasibility study report, the loan request is normally supported by the implementation program (I/P) for the project, which contains the following information:

- ① Priority and necessity of the project;
- ② Investment and financing plans consistent with the project cost, including the cost of operation, maintenance and staff training program;

- ③ Details of the items and components of the project for which Japan's ODA loan is sought;
- ④ Clear statement of the intention of the Borrowing Country Government to undertake the project; and
- ⑤ Steps and procedures necessary to undertake the project (e.g. government approval for the project or EIA, acceptance by the project affected people).

Most of the items in the I/P also appear in the feasibility study report. However, since a feasibility study is primarily an objective analysis and does not contain the Borrowing Country Government's intentions as shown in ① through ⑤ above, it is recommended that in implementing the project, an I/P be prepared, stating precisely and adequately the government's intentions.

In cases where the project plan should differ from the feasibility study report, because of supply and demand constraints, budgetary constraints or other reasons, the Borrowing Country Government should normally state in the I/P the modifications made in the project plan.



## IV. APPRAISAL

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This chapter explains the purpose, principles and steps of appraisal conducted by JBIC.

### 1. Appraisal by JBIC

#### (1) Purpose

The purpose of appraisal by JBIC is to confirm whether it is suitable for ODA loan financing by ascertaining whether and to what extent the proposed project will contribute to the economic and social development, or economic stabilization of the borrowing country, whether the project is planned appropriately and in sufficient detail, and whether successful implementation and sustainable operation and benefits of the project may be expected.

#### (2) Appraisal Criteria

Appraisal of the proposed project begins with a careful and objective examination of the feasibility study (F/S) and the implementation program (I/P).

The Borrower is, therefore, advised to make a comprehensive examination of the items described Chapter V below (see p. 16) in the feasibility study. The following are the main criteria used in appraisal by JBIC:

- ① Whether the project is accorded high priority in the social and economic development plan of the Borrowing Country Government and whether the project is consistent with actual demand;
- ② Whether the major policy issues regarding the target sector (including tariffs, subsidies, sector reform and privatisation) are appropriately addressed in the government's development policies;
- ③ Whether project preparation is adequate to ensure effective implementation and sustainable operation in the economic, financial, technical, social, institutional and environmental aspects;
- ④ Whether the technical and financial capabilities of the Executing Agency are ade-

quate to ensure competent implementation of the project;

- ⑤ Whether the nature of the project makes it eligible for Japan's ODA loan financing (e.g. a project which could generate very high financial return and could attract private financing is usually not eligible); and
- ⑥ If any problems are identified, whether measures can be adopted to solve them.

#### (3) Environmental Appraisal and EIA

In accordance with *JBIC Guidelines for Confirmation of Environmental and Social Considerations (the Environmental Guidelines)*, each project is classified into one of the following four categories based on possible environmental impact:



- Category A: A project likely to have significant adverse impact on the environment. The borrower and related parties must submit an EIA report. For projects that will result in large-scale involuntary resettlement, basic resettlement plans must be submitted. Upon receipt of the EIA report and other relevant documents prepared by the Executing Agency from the Borrower, JBIC conducts environmental review.
- Category B: A project whose potential environmental impact is less adverse than that of Category A project. The scope of environmental review may vary from project to project, but it is narrower than that for Category A projects. JBIC conducts environmental review based on information provided by the Borrower. Where EIA has been done, JBIC may refer to the EIA report, but this is not a mandatory requirement.
- Category C: A project likely to have minimal or no adverse environmental impact. Environmental review will be omitted after screening.
- Category FI: A project satisfies all of the following: JBIC's funding of the project is provided for a financial intermediary etc., the selection and assessment of the actual subprojects are substantially undertaken by such an institution only after JBIC's approval of funding and therefore the subprojects cannot be specified prior to JBIC's approval of funding (or appraisal of the project), and those subprojects are expected to have potential impact on the environment. JBIC checks through the financial intermediary etc. to see whether appropriate environmental and social considerations as stated in *the Environmental Guidelines* are ensured.

It should be noted that the preparation of an EIA report will take some time and require fi-

nancial and human resources in the borrowing country. Thus early consultation with JBIC on project categorization is essential.

#### **(4) Ex-Ante Evaluation**

Based on the appraisal, ex-ante evaluation is conducted for all the projects to be funded by ODA loans. The evaluation system sets quantitative indicators to measure project performance and give an explicit account of the subsequent evaluation plan. The results are disclosed swiftly after signing of L/A as ex-ante evaluation report.

## **2. Steps in Appraisal**

JBIC usually takes the following steps in appraisal:

### **(1) Examination of Project-Related Documents and Relevant Information**

JBIC reviews national, regional and sector development plans and policies in order to confirm the project's priority, and examines the feasibility study report, the implementation program, the EIA report and other project-related information and data received from the Borrower at the time of or prior to the request for an ODA loan. In conducting appraisal, JBIC also takes into account lessons learned from the performance of similar projects, both ongoing and completed.

Such examination enables JBIC to obtain a clear picture of the project, identifying problems and points requiring further clarification, and to decide its policy regarding the appraisal of the project and the project plan.

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## **(2) Appraisal Team and Schedule**

After the project has been selected by the Government of Japan for appraisal, based on the above examination, JBIC forms its appraisal team. An appraisal schedule is also decided, including the timing of the sending of a questionnaire to an organization that becomes the Borrower, the timing and duration of the appraisal field mission and the schedule for submitting the mission's findings to the board of JBIC and the Government of Japan.

## **(3) Request for Supplementary Information and Data**

If the information on the project JBIC received at the time of the loan request is found to contain insufficient information and data to permit appropriate appraisal, JBIC will request the Borrower, in the form of questionnaire, for supplementary information and data on the project before sending the appraisal mission.

## **(4) Dispatch of Appraisal Mission**

An appraisal mission is sent to fully investigate the necessity, feasibility and overall preparations regarding the project and to confirm whether it is suitable for Japan's ODA loan financing from various angles, as described in Chapter V (see p. 16). The mission discusses every aspect of the implementation of the project with the Borrower, and carries out a field survey to collect detailed information and data.

## **(5) Examination of the Results of Appraisal**

The appraisal mission reports the results of its investigation, i.e., the assessment of the project's overall feasibility, whether it is suitable for JBIC financing and, where necessary, special conditions it considers should be stipulated in the loan agreement, to the Government of Japan. The final decision regarding financing is made by the Government of Japan, based on the results of appraisal conducted by JBIC.





## V. ITEMS CONSIDERED IN APPRAISAL

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This chapter describes the items considered in the appraisal conducted by JBIC. The Borrowing Country Government is recommended to take into account these items in project formation before making request for ODA Loans.

### 1. How the Project Has Been Developed

How the project has been developed will be carefully examined as it gives valuable information in considering the background of the project. It is thus reviewed in terms of the following aspects:

#### (1) Origin of the Project

JBIC ascertains who or what organization conceived and developed project idea and why.

#### (2) Identification and Preparation of the Project

JBIC ascertains who carried out the project-related studies, such as the preliminary and feasibility studies, their funding sources, scale and duration, and key issues covered in the studies.

#### (3) Cofinancing

If the Borrower hopes to implement the project with assistance from other donors, in addition to JBIC financing, JBIC reviews the past and current discussions between the Borrower and prospective co-financier(s) and the proposed schedule and other details for the provision of any loan(s) or grant(s) in order to ensure optimal coordination in co-financing between JBIC and these co-financier (s) with regard to cost sharing, schedule and other aspects.

#### (4) Others

Other aspects regarding the chronological development of the project are also examined. For example, progress in institutional arrangements, such as establishment of a project coordination committee, progress in other related projects (both ongoing and planned), the current status of procurement for the project (in

the case where the bidding process has already begun before appraisal), etc.

### 2. The Borrowing Country's Economy and Development Policy

Generally, projects appraised by JBIC have been formed in light of the needs of economic situation of the borrowing country and in line with its national development policy. By analyzing the country's economy and development policy from various angles, JBIC can establish the probable impacts of the project and its priority in the national development plan. JBIC examines particularly the following points, as they are most closely related to the project's implementation:

- ① Natural conditions, such as the country's location, geographical features and climate.
- ② Social and cultural environment, such as national history, social and population structures, and the educational system.
- ③ Current conditions and problems of the economy, such as GNP, industrial structure, financial market, prices, the balance of payments, foreign assistance, employment, the state of poverty and natural resources.
- ④ National development policy:
  - (a) development objectives, priority policies and targets;
  - (b) the country's public investment program (PIP), recent trends in budget allocation for national and sectoral development, and the achievement of development targets; and
  - (c) development policies in the sector where the project is proposed, such as tariffs, tax and subsidies, privatisation and overall investment program for the project sector, in addition to the priority of the

- 
- project in the national development plan.
- ⑤ Macroeconomic policy, such as fiscal and monetary policy, may significantly affect the implementation and operation of the project. Therefore, JBIC also studies policies that may have impacts on the project, particularly in the countries undertaking the structural adjustment program.
  - ⑥ Present situation regarding assistance to the country by other donors (including the IMF and the World Bank).

### 3. Necessity for the Project

JBIC examines the necessity of the project both in the relevant sector and from regional perspective by reviewing demand and supply.

#### (1) Background of the Project

The background of the project is considered from the following four viewpoints in order to determine whether the project is planned as an integral part of sectoral and regional development.

- ① Current conditions and problems of the sector where the project is proposed (the project sector)

Current conditions and problems of the project sector are reviewed in order to assess the role of the project in the national economy and the supply and demand situation in the project sector.
- ② Major policy issues regarding the target sector and the government's policies

JBIC reviews the major policy issues in the project sector (including tariffs, subsidies, sector reform and privatisation) to the extent that they may significantly affect the implementation and operation of the project, and the government's policies to address them.
- ③ Target region of the project

Natural, social and economic conditions in the target region are reviewed in order to determine whether the project is so de-

signed as to overcome constraints found in the target region.

- ④ Regional/sectoral/development plan

JBIC reviews the regional/sectoral development plan or the master plan, if it exists, in order to understand the rationale of the proposed project in the context of regional or sectoral development, while paying attention to the plan's objectives and goals, the priority ranking of all the projects in the plan, the investment plan and the progress to date toward achieving objectives and goals.

JBIC studies other donor's assistance in the target region and the project sector, as useful lessons for the project may be drawn from this exercise.

#### (2) Examination of Necessity for the Project

- ① Demand-and-supply analysis

The demand-and-supply analysis is a crucial factor in determining the appropriate scale of the project and the timing of investment. The results of such analysis provide the basis for estimating project benefits in the financial and economic evaluation of the project. JBIC, therefore, carefully assesses its reliability and accuracy.

The demand-and-supply analysis usually looks into both current demand and supply and forecasts for the future.

JBIC first examines whether current supply is appropriate relative to actual demand by taking into account such factors as analytical approach (e.g. micro or macro analysis), past fluctuations, geographical conditions, the timing of the analysis and data sources.

JBIC then assesses demand and supply forecasts. The analysis of demand forecast must pay particular attention to the project region and period and assumptions, including changes in the price of output and services produced by the project, changes in the social and economic environment, fore-

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casting methodologies, and the accuracy of the basic data. At the same time, supply forecast is analyzed by taking account of the present supply situation, the extent of aging and depreciation of the existing facilities, other facilities to be constructed, and the expected import of products or utilities.

② Other Analysis

Some projects such as afforestation or flood control projects are not amenable to conventional supply-and-demand analysis. In this case, the expected effects of the project and their comparison with alternative plans are considered quantitatively and / or qualitatively.

③ Expected project effects

JBIC examines if expected project effects (as defined in the operational performance indicators) are appropriate for achieving such objectives and goals of the project as poverty reduction, growth and environmental improvement.

## 4. Project Plan

The proposed project is reviewed comprehensively. JBIC examines the project site, project scale, proposed facilities and their design, and technology to be used, and evaluates whether the project is most appropriate and viable technically and economically among other feasible alternatives. Attention is also paid to whether the opinions of those who will be affected by the project have been appropriately reflected in the project planning in order to ensure beneficiary involvement in the project and to enable smooth operation and maintenance after project completion. JBIC also confirms that project design has taken into account the environment in and around the project site and whether the necessary procedures in this respect, including Environmental Impact Assessment (EIA), have been completed.

In addition, JBIC clearly establishes the relationship or demarcation with other relevant

projects, both ongoing and planned.

### (1) Site Conditions

The following points are examined in the area/region where the project is located and in all the areas affected by the project: natural, demographic and social conditions; means of transportation and access to them; availability of materials, labor, water and power supply; and the present state of economic activities.

### (2) Scale of the Project

The scale of the project refers to the scale of the physical facilities or the output of the project, e.g., the area irrigated by an irrigation project, the generating capacity of a power plant project, the production capacity of a manufacturing project, etc.

JBIC reviews the scale of the project together with the investment schedule, both of which are determined based on demand forecast and the national, regional and sectoral development plans.

### (3) Type of Facilities

In light of the site conditions and the scale of the project, the type of facilities proposed is considered in terms of their appropriateness from the technical and economic points of view.

### (4) Physical Planning of the Project

The physical planning of the project greatly affects its cost. JBIC reviews the physical design in terms of the scale, location and layout of project facilities and operating skills. Such exercise takes into account demand forecast, estimates of the required capacity of the facilities, profitability, the Executing Agency's technical capability in construction and project operation, and the use of technology appropriate to the country's technical level.

### (5) Physical Design of the Project

Physical design is generally broken down

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into basic design and detailed design. In the normal case of JBIC appraisal, the costs are estimated based on the basic design, while detailed design is carried out to prepare bidding documents for actual construction, and is therefore not necessarily essential for appraisal.

However, it is more efficient in certain types of projects to conduct detailed design by ODA loan-financed engineering service before the appraisal. For example, when a project involves large-scale facilities or project site conditions are unfavorable, it may not be possible to estimate costs accurate enough for JBIC to conduct appraisal of the project, unless detailed design is done first. There is a case where detailed design is conducted by JICA through its technical assistance scheme.

JBIC reviews physical design from a variety of aspects, including natural conditions, design process, design criteria and procedures, availability of materials, and construction methods.

#### **(6) Relationship with Related Projects**

Other related project could affect the feasibility and necessity of the project under appraisal (e.g. a dam construction project and projects for irrigation or water supply). Therefore, the progress in and future schedule for the implementation of such related projects are examined so that the project under appraisal may achieve its objective.

### **5. Project Cost and Financing Plan**

The examination of project costs is one of the most important elements of project appraisal. The project cost estimate provides a basis for the financing plan and for financial and economic evaluation of the project. JBIC thus examines the cost estimate closely from various angles.

#### **(1) Composition of Project Cost**

Project cost consists of various items, de-

pending on the type of project, and contains local and foreign currency components. The cost of each item should be carefully estimated based on facility design, services required and appropriate unit price.

The project cost is generally broken down into the following items:

#### ① Goods and services (excluding consulting services)

Goods and services comprise plant structure, equipment, construction materials, construction machinery, labor, fuel, transportation, etc.

#### ② Consulting services

When it is necessary to employ consultants, the cost of consulting services should be estimated based on the assignment schedule for experts. The cost should be broken down into remunerations and direct costs (equipment, training, etc.).

#### ③ Land acquisition and compensation

The cost of land acquisition and compensation may be considerable, depending on the type and scale of the project. The cost of this item should be carefully estimated, especially when the project involves large-scale involuntary resettlement. Costs for improving infrastructure at the relocation site and for environmental measures, such as conservation of cultural heritage and protection of wildlife, may also be included.

#### ④ Others

Taxes and duties, initial operation and maintenance costs after project completion, administration expenses of the Executing Agency and interest during construction may be included in the total project cost.

#### ⑤ Contingencies

There are two types of contingency fund: provision for an increase in prices (price contingency) and provision for increase in physical works due to unforeseen factors (physical contingency). Price contingency is determined based on the trend of price indices, while physical contingency de-

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depends on the nature of the project.

## **(2) Evaluation of Project Cost**

JBIC evaluates the accuracy and appropriateness of the project cost by reviewing the adequacy of the methods used for estimation; items, specifications and quantities of goods and services required; unit prices used for cost estimate; provisions for contingencies; contract amounts in the similar previous projects in the same country, Japan or other countries; local and foreign currency components; and the applied exchange rate.

## **(3) Fixed-Percentage Financing Criteria**

Developing countries often find it difficult to make public investment due to their domestic budgetary constraints. As a means to financing part of domestic currency component, JBIC introduced fixed-percentage financing criteria in fiscal 1989.

The criteria set a certain percentage of the total project cost as the upper limit for ODA loan financing regardless of the distinction between foreign and domestic currency components in the total project cost. The percentage may vary depending on per capita GNI in the borrowing country.

Items such as land acquisition and compensation, taxes and duties, administration costs of the Executing Agency are not eligible to ODA loan financing. These items, however, can be included in the total project cost based on which the maximum amount of an ODA loan is calculated.

When the proportion of foreign currency component in the total project cost is greater than the percentage of ODA loan financing set by the criteria, the foreign currency cost, in principle, becomes the maximum amount of an ODA loan to be provided for the project (see Figure 2).

## **(4) Financing Plan**

JBIC examines whether the financing plan

for the project, i.e., annual funding requirements and budgeting, is adequate in light of the project cost and the implementation schedule.

### **① Schedule for annual fund requirements**

JBIC reviews the annual fund requirement schedule, paying attention to whether it is in line with the project implementation schedule, whether foreign and local currency requirements are appropriately estimated and allocated for each year and whether adequate contingency funds are allocated for each year.

### **② Budgeting**

The funding arrangements should be planned so as to ensure that costs which will not be covered by the ODA loan will be adequately funded from other financing sources, such as national or local budget, the Executing Agency's internal funds, borrowings from commercial financial sources, or loans or grants from the prospective cofinancing institution(s). JBIC studies the financial soundness and financing procedures of such sources to ascertain whether the funds required will certainly be available for the project. When cofinancing with a multilateral or bilateral financing institution is planned, JBIC reviews the progress in negotiations with such cofinancing institutions and the part of the project cost covered by funds provided by them.

### **③ Re-lending**

Each borrowing country has its own policy and mechanism for domestic lending by the central government to government agencies, financial institutions, and public corporations. When the proceeds of the ODA loan are to be re-lent to such agencies or institutions, JBIC ascertains the borrowing country's policy and relending mechanism, the entity which will bear the foreign exchange risk and the proposed terms and conditions of sub-loans.



## 6. Project Implementation, Operation and Maintenance Plans

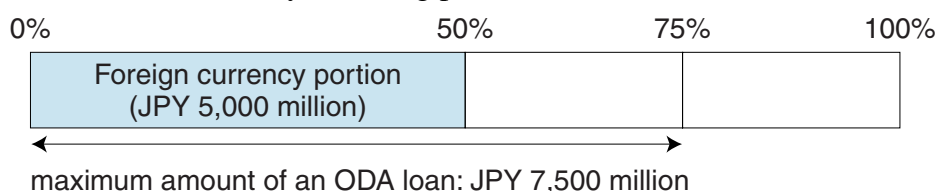
JBIC examines project implementation, operation and maintenance plans, especially institu-

tional arrangements, implementation plan, procurement procedures, construction plan and post-completion operation and maintenance regime.

**Figure 2. Fixed-Percentage Financing Criteria: Examples of Calculation**

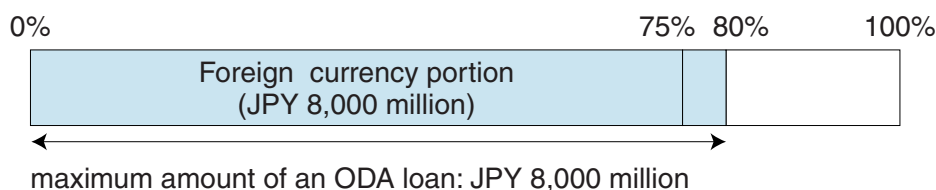
Example A:

Assume that ① the total project cost is 10,000 million Japanese Yen (JPY) equivalent of which the foreign currency portion (assumed to be imported) is JPY 5,000 million, with the remaining portion financed in domestic currency, and that ② the fixed percentage applicable to the borrowing country is 75%. Then the maximum amount of an ODA loan will be JPY 7,500 million, covering all the foreign currency portion and JPY 2,500 million equivalent of the local currency financing portion.



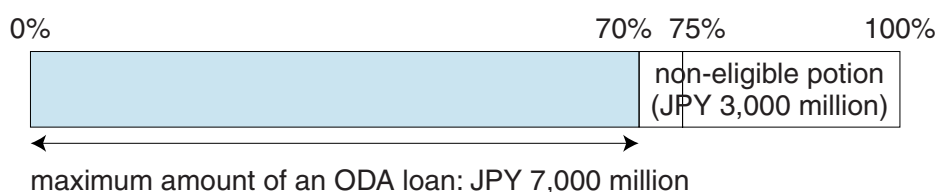
Example B:

Assume that ① the total project cost is JPY 10,000 million equivalent, of which the foreign currency portion accounts for 80% (i.e. JPY 8,000 million), and that ② the fixed percentage applicable to this country is 75%. In this case, the maximum amount of an ODA loan will cover the total foreign currency portion (i.e. JPY 8,000 million).



Example C:

Assuming that ① the total project cost is JPY 10,000 million equivalent, with ② the non-eligible portion accounting for 30% (i.e. JPY 3,000 million equivalent), and that ③ the fixed percentage is 75%. Then the maximum amount of an ODA loan will cover the total eligible portion (i.e. JPY 7,000 million equivalent).



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### **(1) Institutional Arrangements for Implementation**

JBIC makes comprehensive evaluation as to whether appropriate institutional arrangements are in place in order to ensure effective and efficient project implementation. In making such evaluation, it is crucial to identify how responsibilities are divided and operations are coordinated among the organizations involved in the project.

Organizations involved in project implementation are generally divided into the following groups: the Executing Agency directly responsible for implementing the project (the Borrower often plays this role); government agencies supervising the Executing Agency; procurement agency (in most cases, the Executing Agency is charged with procurement); government agencies or banks involved in disbursement and other organisations involved.

The evaluation of institutional arrangements for implementation requires reviewing government policy regarding the Executing Agency and other organisations involved in the project, particularly the possibility of privatisation.

Among various organisations involved in the project, the Executing Agency plays a particularly important role for implementation of the project. JBIC thus closely examines the Executing Agency in terms of its objectives, characteristics and managerial, technical and financial capabilities by looking into its experiences and performance to date. If deemed necessary, JBIC considers remedies for resolving problems in institutional arrangements and how to strengthen institutional capacity.

In the case where the Executing Agency is a financially independent entity, JBIC closely examines whether it has the capacity to finance its portion of project costs, operation and maintenance cost and costs of other necessary investment. JBIC also examines its accounting management capacity by going over

the balance sheets, income statements and auditor's reports in the previous several years. If the project under appraisal has any structural problems, for example, regarding its tariff structure, level, and collection method, JBIC examines what measures have been taken by the government and the Executing Agency for reforms, and whether assistance was received from other donors for this purpose. In this way, JBIC evaluates the financial position and the capacity of the Executing Agency in effectively implementing the project as well as efficiently operating the project facilities after its completion.

### **(2) Employment of Consultants**

For the efficient and proper implementation of the project, JBIC recommends employment of consultants to reinforce supervising and technical capabilities of the Executing Agency. Consultants are faithful advisers to the Executing Agency. As set forth in *Conditions of Contract for Works of Civil Engineering Construction* (Fourth edition, 1987) of FIDIC (Fédération Internationale des Ingenieurs-Conseils), consultants supervising construction may be empowered to make the final decision as independent engineer. Based on the analysis of the institutional capacity of the Executing Agency and the *Guidelines for the Employment of Consultants under JBIC ODA Loans*, JBIC reviews (a) the need to employ consultants, (b) the Terms of Reference (TOR) which explicitly describes the scope of services assigned on consultants, and the nature of their responsibilities, (c) the selection method of consultants, and (d) the Letter of Invitation.

### **(3) Implementation Program**

The construction of the project is carried out either by the Borrower/Executing Agency, or by an employed contractor. There are also several types of contracts, including the turn-key contract, unit price contract and lump sum con-

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tract. By comparing the case where the Borrower/Executing Agency carries out construction and the case where the outside contractor carries out construction, and by examining various types of contracts, JBIC reviews the decision on the most desirable construction modality and contract option, while considering the nature of the project and the technical capabilities of the Borrower/Executing Agency and contractors.

#### **(4) Procurement**

##### **① Procurement procedures**

In principle, JBIC requires the Borrower to procure goods and services through international competitive bidding (ICB), as it is considered the most economical, efficient, transparent and non-discriminating method of procurement.

If non-ICB procedures are proposed by the Borrower, such as bidding among local contractors, JBIC reviews the reasons for adopting the alternative procedures in terms of the nature of goods and services to be procured, and the number of qualified suppliers and other matters. Procurement procedures should follow *Guidelines for Procurement under JBIC ODA Loans*. The Guidelines were revised in 1997 and 1999, requiring, in principle, prequalification (P/Q) and adopting two-envelope bidding to ensure that the project is implemented by eligible contractors. While consultants are, in principle, employed based on the short list method, the Borrower is required to follow *JBIC's Guidelines for the Employment of Consultants under JBIC ODA Loans*. These Guidelines were also revised in 1997 and 1999 to enhance rights and responsibilities of the consultants and increase their role in confirming environmental considerations.

##### **② Bidding package**

JBIC also reviews the bidding package in appraisal not only in the technical aspect,

but also in terms of its compliance with the above Guidelines.

#### **(5) Construction Plan**

##### **① Construction methods**

JBIC examines in the appraisal whether the construction methods proposed is appropriate in terms of safety, reliability, technical feasibility and environmental impact.

##### **② Supervision**

JBIC confirms whether supervising responsibilities are explicitly assigned among the Executing Agency, contractors and consultants. To ensure efficient project implementation, an appropriate system should be put in place for supervising construction, including monitoring and inspection.

##### **③ Construction schedule**

The construction schedule could affect the project cost (especially contingencies for an increase in prices), as well as the annual financing plan and disbursements of the ODA loan. JBIC examines whether the construction schedule reflects realistic assumptions in light of the schedules of other related projects, natural and social conditions, the period required for consultant selection and procurement, and ODA loan procedures. Typically, a detailed construction schedule is submitted to JBIC, which illustrates plans for individual construction categories, for example, by using monthly bar chart.

##### **④ Land acquisition, resettlement and compensation**

When the project involves land acquisition, resettlement, and compensation, JBIC carefully reviews their planning and preparations and confirm that necessary procedures will be carried out with adequate environmental and social considerations.

#### **(6) Operation and Maintenance System**

The points JBIC examines at the operation

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and maintenance stage vary for different sectors. JBIC evaluates whether the proposed operational method can ensure efficient and safe operation of the planned facilities, whether there is an adequate plan for maintenance, and whether the funds necessary for operation and maintenance will be obtained through budgetary allocation or revenues generated from the project.

When the agency responsible for operation and maintenance is different from the Executing Agency, its organization and capability are examined, including the aspects described in (1) above. In the case where the project generates revenues, pricing policy and the tariff collection scheme are analyzed in conjunction with the financial position of the agency responsible for operation and maintenance.

#### **(7) Technical Assistance and Transfer**

##### **① Technical assistance in the framework of ODA loans or Special Assistance Facility by JBIC**

Technical assistance, usually in the form of providing engineering, financial, operational or development expertise, is extremely useful for ensuring the sustainability of benefits and effects generated by the project. JBIC considers whether it is necessary for the sustainability of project effects to provide technical assistance or training for the staff of the facilities related to the project executing or operating agency. When such assistance or training is considered necessary, JBIC examines whether such technical assistance or the training program is satisfactorily planned and can be implemented within the framework of the project. When such assistance or program is deemed necessary, they are usually provided by consultants or experts employed by the Borrower, being financed by the ODA loan.

In addition, JBIC may provide technical

assistance for the Executing Agency and others with a SAPI study, or a study by the Special Assistance for Project Implementation, which is one type of the Special Assistance Facility.

##### **② Collaboration with JICA**

In Japan's institutional arrangements for providing ODA, the Japan International Cooperation Agency (JICA), an agency conducting official technical cooperation for developing countries, engages in various types of grant-funded technical assistance activities, including dispatch of experts, acceptance of trainees, provision of equipment, conducting development studies (feasibility studies (F/S), master plans (M/P), etc.) and project-type technical cooperation, (which combines the first three types of activities).

In addition to the technical assistance component covered by ODA loans described above, JICA may carry out detailed design (D/D) (including the preparation of bidding documents) in ODA loan-financed projects on a grant basis. JBIC also considers collaboration with JICA's training program and dispatch of qualified Japanese experts, particularly with the aim of strengthening operation and maintenance as well as institutional capacity for effective implementation.

## **7. Financial Evaluation**

Financial analysis is conducted for revenue-generating projects, such as industrial, power and railway projects. The purpose of the financial analysis is to assess the financial viability of the project, i.e., whether the Executing Agency can recover its investment from revenues generated in project operation in the initially planned period, and whether the project generates sufficient funds for operation and maintenance, as well as additional investments.

JBIC assesses the financial internal rate of

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return (FIRR) calculated from cash flows by taking account of the following points:

### **(1) Costs**

Cash outflows include costs in the construction stage and in the operation and maintenance stage. These costs should be consistent with the project cost described in the previous chapter. JBIC reviews the unit prices of construction materials, operation and maintenance costs (including the cost of raw materials, and labor, operating, administrative and marketing expenses), and the utilization rate of project facilities.

### **(2) Revenues**

Cash inflows come mainly from sales revenues or tariffs collected from the users. JBIC closely examines the projection of revenues generated from the project based on estimates of the quantity and price of goods and services supplied.

In the case of public-sector projects, such as large-scale freight transport, power and water supply projects, JBIC focuses on the following points to assess whether tariffs are appropriate:

- ① pricing decision procedures;
- ② price setting policy;
- ③ whether the tariff rate is appropriately determined in light of earnings generated by the project and the financial situation of the Executing Agency;
- ④ whether operation and maintenance costs can be covered by the tariff rate;
- ⑤ whether the tariff rate is socially acceptable, especially from the viewpoint of the poor.

### **(3) Financial Evaluation**

The FIRR of the project is evaluated based on the following considerations:

It is desirable for the project to have a relatively high FIRR, for example, one higher than the market interest rate, in order to ensure financial feasibility and viability. However,

since ODA loan-financed projects are primarily designed to contribute to public welfare, the project may receive financing even if its FIRR is lower than the market interest rate, provided that the FIRR is at an acceptable level. The sensitivity analysis is normally carried out as part of the FIRR analysis in the same manner as described in economic evaluation below.

## **8. Economic Evaluation**

Economic evaluation is one of the most meaningful and useful methods for assessing the viability of a project, especially the one undertaken by an official agency. Its purpose is to evaluate the economic value of the project by cost-benefit analysis. This enables quantitative comparison between project benefits and costs (which consists of implementation, operation and maintenance costs) from the point of view of the country's economy.

### **(1) Cost-Benefit Analysis**

Cost-benefit analysis, which constitutes the core of economic evaluation, reflects the real opportunity cost of capital in the borrowing country. The analysis is based on costs and benefits derived from shadow prices, which are obtained by adjusting actual market prices that may be distorted for a number of reasons. Shadow prices used for the analysis may, therefore, differ from the market prices used for financial evaluation.

The analysis is based on the present values of costs and benefits. They are obtained by discounting cash flows in different periods. Discounting gives value at a certain point of time, usually the present value.

There are three major criteria for evaluating the values obtained by using this technique. These criteria are frequently used in evaluating the economic value of the project and deciding whether it constitutes an appropriate use of resources. They are: net present value (NPV),



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the benefit-cost ratio (B/C ratio) and economic internal rate of return (EIRR).

## **(2) Sensitivity Analysis**

JBIC examines the sensitivity of EIRR to changes in major variables that significantly affect economic benefits and costs. In most cases, the sensitivity of EIRR is assessed by using various quantities or prices of the major variables in the major project cost-benefit items. Sensitivity analysis is important because it explicitly reveals project risks.

## **(3) Qualitative Evaluation**

To make more comprehensive assessment of project benefits, JBIC performs qualitative judgment on other economic effects, both positive and negative, that are not easily amenable to quantitative analysis.

## **9. Operation and Effect Indicators**

Operation and effect indicators were conceived to quantitatively measure the project's operational performance and effects in light of its objectives. These indicators, including target figures, are adopted by the mutual consent of JBIC and the Borrower at the time of the appraisal and are subject to continuous follow-up at various stages of the project cycle, including intermediate supervision during implementation, and post completion monitoring and ex-post evaluation.

## **10. Confirmation of Environmental and Social Considerations**

During the project's planning stage, adequate study and assessment must be done on ways to prevent, minimize or mitigate the project's adverse impacts on the environment or society. To ensure that due environmental and social considerations are made for the projects financed by its loans, JBIC issued in April 2002 *JBIC Guidelines for Confirmation of*

*Environmental and Social Considerations.*

The objective of the Guidelines is to encourage project proponents to implement appropriate measures for environmental and social considerations in accordance with the Guidelines by setting forth JBIC's procedures for confirmation of environmental and social considerations, criteria for decision-making, and requirements the project subject to funding by JBIC must meet for environmental and social considerations. (Environmental and social considerations defined in the Guidelines refer not only to pollution and impacts on the natural environment, but also to issues of social concern such as involuntary resettlement, ethnic minorities and cultural heritage.)

### **(1) Basic Principles Regarding Environmental and Social Considerations**

#### **① Screening (Categorization)**

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 nature, degree and uncertainty of its potential environmental impact, and the environmental and social conditions of the proposed project site and surrounding areas (see Chapter 4 for details). For this purpose, JBIC makes appropriate use of the Screening Form attached to the Guidelines.

A proposed project is classified as Category A if it is likely to have significant adverse impact on the environment, or if it results in large-scale involuntary resettlement. For Category A projects, the borrowers and related parties must submit Environmental Impact Assessment (EIA) reports, for which due process has been completed, or basic resettlement plans.

#### **② Environmental review**

Before making a financing decision, JBIC confirms if adequate environmental and social considerations are made for the project in accordance with the Guidelines, while

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taking into account the nature of the project and particular conditions in the individual country or region. JBIC uses Environmental Checklist attached to the Guidelines to carry out environmental review efficiently.

③ Monitoring

After making the financing decision, JBIC confirms that robust measures have been undertaken, reflecting adequate environmental and social considerations, by focusing on monitoring and follow-up based on the environmental management plan. The borrowers and related parties should transmit to JBIC the information necessary for this confirmation by appropriate means.

④ Participation of and dialogue with stakeholders

To ensure accountability and transparency in the whole project process including preparation, implementation and operation, it is crucial for JBIC to have participation of and dialogue with stakeholders, including local residents affected by the project and local NGOs, in all the stages of the project.

In particular, when EIA reports and resettlement plans are prepared, it is desirable to have adequate interviews and consultations with stakeholders, prepare records of discussions on those occasions, and reflect their results in the project plan.

⑤ Information disclosure

Information disclosure is essential for taking into consideration a variety of views and for ensuring accountability and transparency in the environmental review process.

JBIC requires the Borrowing Country Government to make public environmental assessment reports and resettlement plans. For its part, JBIC releases results of the screening and environmental review at its web site. It also discloses, by appropriate means, information on environmental and social considerations to the greatest extent

possible in accordance with the nature of the project.

## (2) Check Items and Their Description

The Guidelines described environmental and social considerations required for the projects financed by JBIC's loans, items to be covered in EIA reports, environmental checklists for 26 key sectors, and items to be monitored.

For details of the Guidelines, visit <http://www.jbic.go.jp/english/environ/guide/finance/eguide/index.php>.

## 11. Social Dimensions

At the project planning and implementation stage, it is also necessary not only to minimize environmental and social impacts, but also to maximize project benefits for those socially vulnerable groups where project benefits are not easily delivered. They include women, children, the aged, the poor, ethnic minorities, and indigenous peoples. Particularly in the case of the projects that are expected to have direct positive impact on living standards of people, for example, projects in such sectors as irrigation, agriculture, microfinance, education, healthcare and community infrastructure development in rural areas and urban slums, JBIC takes great care to ensure that appropriate considerations are made to deliver expected project benefits to as many socially vulnerable people as possible. Specific measures include the adoption of schemes that incorporate the needs of the socially vulnerable people to the greatest extent possible during the project planning and implementation stage, for example, by identifying the socially vulnerable people among the beneficiaries, understanding their needs, and encouraging their participation in the project. The Borrower may refer to the *Handbook on Social Dimensions for ODA Loans* published by JBIC.

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## 12. Monitoring

The responsibility for project implementation basically rests with the Borrower. JBIC does, however, have its own project supervision procedures to keep track of the progress in implementation and make appropriate recommendations, where necessary, for efficient implementation of the project.

JBIC monitors the overall implementation schedule of the project, including the procedures and disbursements laid out in the loan agreement, as well as other matters closely related to the project. The following points are examined at the time of appraisal for effective and efficient monitoring:

- ① Environmental impacts and the operation and maintenance system;
- ② The monitoring system in place for overall project implementation, budgeting, and environmental impacts (including resettlement); and
- ③ The ex-post evaluation system and evaluation criteria.

## 13. Conclusion

After appraising the points described in Section 1-12 above, JBIC considers whether there are any inconsistencies in the overall project plan. Then, confirming individual appraisal items in accordance with the nature of the project, JBIC makes final examination on the following points:

- ① Are there significant problems that may undermine feasibility, smooth and efficient implementation or sustainability of the project?
- ② Is it possible to take effective steps to solve such problems?
- ③ Even if the project is basically deemed feasible and sustainable, is it possible to improve the project plan with some modifications?

Following these examinations, JBIC makes final decision on whether the project is suitable for financing by an ODA loan.



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## **JBIC Publications on ODA Loan Operations**

1. Annual Report (Japanese and English)
2. ODA Loan Report (Japanese and English)
3. Environmental Report (Japanese)
4. The Role and Functions of JBIC (Japanese)
5. JBIC Today (public information periodical) (Japanese and English)
6. JBIC Guidelines for Confirmation of Environmental and Social Considerations (Japanese and English)
7. Handbook on Social Dimensions for ODA Loans (English)
8. Ex-Post Evaluation Report for ODA Loan Projects (Japanese and English)
9. Guidelines for Procurement under JBIC ODA Loans (English and preliminary Japanese translation)
10. Guidelines for Employment of Consultants under JBIC ODA Loans (English and preliminary Japanese translation)
11. Handbook for Procurement and Employment of Consultants under JBIC ODA Loans (English)
12. Evaluation Guide for Prequalification and Bidding under JBIC ODA Loans (English)
13. Sample Bidding Documents for Prequalification, Civil Works, Goods, Smaller Contracts and Selection of Consultants under JBIC ODA Loans (English)
14. Research Reports of JBIC Institute (Japanese and English)