

Effectiveness of Evaluation of Development Assistance for Infrastructure Projects in Asian Countries*

アジア諸国のインフラ・プロジェクトに対する開発援助評価手法に関する考察

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1. Introduction

Countries that are unable to mobilize sufficient domestic resources for economic growth have historically sought assistance from other countries. At present majority of developing countries consider foreign aid as an important ingredient in their development efforts. About 45 to 50 per cent of all aid commitments consist of contributions to build up social and economic infrastructure in developing countries. In the case of multilateral donors, this is as much as 60 to 65 per cent. Emphasis is placed almost equally on social infrastructure (education, health, etc.) and economic infrastructure (energy, transportation, communications, etc.). Bilateral aid donors usually plan and disperse loans and grants for infrastructure through aid agencies. Most of the capital aid is disbursed through specific projects. Multilateral aid predominantly comprises of soft loans made available to the recipient member countries.

One major issue of aid is that whether it has a healthy impact on the development of the third world countries. Recent studies have confirmed that the impact of aid continues to be a controversial issue (Carlsson et al., 1994). Therefore, the effectiveness of aid should be known by the donor agencies in order to maximize impact of aid on growth. An aid agency's evaluation function is the primary tool by which the agency acquires knowledge about its activities and feeds it back to its operational decisions. For the term "Evaluation", within the professional literature of the field, numerous definitions can be found. The expert group on aid evaluation, formed by the Organization for Economic Cooperation and Development (OECD), has established the following definition (OECD, 1986):

An evaluation is an assessment, as systematic and as objective as possible, of an ongoing or completed project, program or policy, its design, implementation, and results. The aim is to determine the relevance and fulfillment of objectives, effectiveness, impact and sustainability. An evaluation

should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision making process of both recipients and donors.

Since 1960's the aid agencies have continuously developed sophisticated appraisal and evaluation systems in order to increase the effectiveness of aid. However, the causal relationship between aid and economic growth still remains unclear. It can be reasonably argued that the ways in which the aid agencies seek knowledge about the economic impact of aid; planning techniques and administration systems; are not good enough, or it may be suggested that the analytical tools; project appraisal and evaluation techniques are ill suited to the task. Therefore, the entire evaluation system, including both the planning and administrative system and the appraisal and evaluation techniques have to be further developed. Post Evaluation is a tool not meant for the improvement of the project in progress, but related with projects to be implemented in the future. Therefore, the inefficiency in the evaluation system can cause the accumulation of errors until the methodology is refined. In such a context, this paper is aimed at identifying major constraints of project evaluation systems of the donor agencies and trying to recommend some measures that are needed for further development of the evaluation process.

2. Overview

In response to the issues and problems mentioned above, the paper first explores the ways in which a donor agency conducts an evaluation. The methodologies involved in aid evaluation and institutional factors related with the evaluation organization are analyzed in detail. Since the problem of effectiveness is related to the policy of the evaluation function, firstly an analysis is carried out to find out the orientation of evaluation policy as described in detail in the preceding sections. Secondly, the dissemination of evaluation information to the decision making process is analyzed to find out the deficiencies found, if any in that

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process. Thirdly, the link between the implementation stage and the evaluation stage of the project cycle is analyzed to obtain the relevancy of project implementation in the evaluation function. Accordingly, the paper can be divided into three stages as described above which relates to the project cycle as given in Figure 1. The methodology used in each stage of the study and the results obtained are given under each stage. The conclusion and recommendations for the future conduct of evaluations for infrastructure projects are given in the end of the paper.

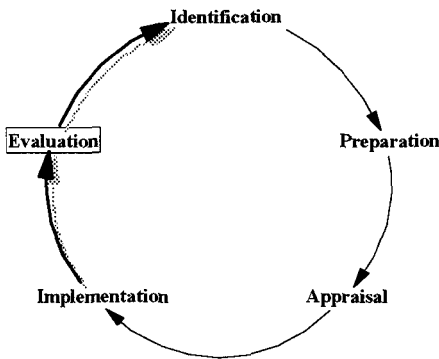


Figure 1 Project Cycle

3. Analysis of Evaluation Policy

The performance of evaluation of an aid agency depends on its evaluation policy. Hence, a comparative approach is adopted to study the evaluation functions of fourteen major donor agencies. Depending on the characteristics of the evaluation function, the policy orientation has been established. Four main areas representing the evaluation function has been selected for the analysis, viz;

- I. Evaluation objectives.
- II. Evaluation guidelines.
- III. Structure and organizational pattern of the evaluation unit.
- IV. Effectiveness of the feedback system.

Under these four aspects, appropriate indicators have been selected to represent the evaluation policy. The first two aspects are performance factors of an evaluation function, while the latter two constitute the institutional factors.

The analysis is based on the "orientation" of the evaluation policy of each agency. To speak of an orientation is to suggest a tendency rather than an organized movement, and this seems appropriate in the analysis, since analysis of policy can be done

from many points of departure and for many different reasons. The intended study is to analyze the effectiveness of aid evaluation in donor agencies. Therefore, orientation in terms of the original objectives concerned, should be the basis for this analysis. Helping developing countries to develop themselves is the main objective of development aid. As such, the evaluation function has to be oriented to achieve that objective rather than focusing on aid delivery and administration. Accordingly, two contradicting policy orientations of the evaluation function has been identified as "Management concern" and "Development concern". These two orientations will constitute two extremes of a continuum as in Figure 2. Management concern is a

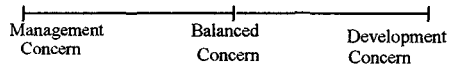


Figure 2 Continuum of Policy Analysis

notion that an agency's inability to look beyond the aid delivery system and, or its own aid management sphere. On the contrary, development concern is a notion which is not only looking at the aid delivery system of an agency, but goes further to take into account the recipient country needs and the real aim of development assistance. Using published materials of the agencies under consideration, the bias toward either concern in the ordinal scale is established. A brief description of each of the aspects used for the analysis is given below.

(1) Evaluation Objectives

The evaluation objectives of each agency would indicate the relative emphasis given to the management concern and development concern in the evaluation function. Therefore, each objective is tested for its policy orientation on the scale using three indicators: the type of objective; time horizon of the objective; and the scope of the objective. Accordingly, the wordings used, time period considered and the intensity of the focus of the objectives are taken as the criterion for ranking them in the scale.

(2) Operational Guidelines

Almost all aid agencies have their own guidelines for evaluation. These guidelines provide the basic criteria to be followed by evaluators. Hence, these guidelines could be considered to reflect the agency's evaluation policies. These guidelines have been analyzed to obtain policy orientations of each agency. The emphasis to a particular concern in the evaluation guidelines is assumed to represent the policy orientation of each agency. The rank of an agency in the scale is determined using the number of clauses and subclause a particular concern represents in the guidelines using Equation 1.

$$\frac{\text{Number of Clauses \& Subclauses of a Particular Item}}{\text{Total Number of Clauses}} \times 100 \quad (1)$$

(3) Organizational Structure of the Evaluation Unit

The implementation pattern of the evaluation function, the location of the evaluation unit in the whole organization, and the degree of independence on the evaluation function determines the policy orientation of an agency's evaluation function. Accordingly, all these factors have been analyzed to locate each agency in the scale. Firstly, four types of patterns have been identified as centralized, integrated, separate and totally independent unit and the degree of deviation from the implementation units have been used as the measure of the ranks. Furthermore, the location of the evaluation unit in the organizational hierarchy is assumed to dictate the influence it can make on the managerial decision making process. Moreover, the distinction between the use of external and internal evaluators has been taken into consideration in determining the degree of independence of the evaluation function.

(4) Evaluation Feedback

Providing effective feedback of evaluation findings to its potential users is an important aspect of the evaluation process. The degree of openness of the feedback mechanism and the feedback layers are used as the two criterion for the analysis of evaluation feedback to determine each agency's orientation.

(5) The Results

When the relationship between institutional aspect and performance aspect of the evaluation function is plotted using scores obtained from the analysis, Figure 3 can be obtained. It shows that when institutional orientation increases the performance orientation will follow suit. It illustrates that institutional factors can play a major role in the policy orientation and performance of the evaluation function of donor agencies. However, traditionally it was always the performance aspect that has been considered important for making improvements into the evaluation function.

When each agency is ranked on the scale using various criteria and synthesized together the result can be summarized as in Table 1, in which D,B,M denotes development concern, balanced concern and management concern respectively. Also it becomes clear that the institutional factors can play a major role in the policy orientation and performance of the evaluation function.

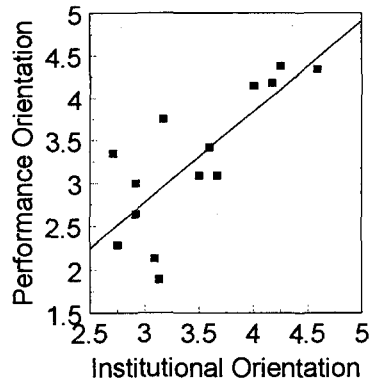


Figure 3 Institutional & Performance Orientation

Table 1 Summary of Policy Analysis

Agency	Evaluation Objectives	Operational-Guidelines	Organizational Structure	Evaluation Feedback
ADB	D	B	B	B
AIDAB	B	D	B	D
BMZ	B	M	D	M
CIDA	D	B	M	B
DANIDA	B	B	M	B
FINNIDA	M	M	B	M
IBRD	D	M	B	M
Japan	D	D	B	D
Netherlands	D	D	D	D
NORAD	B	D	D	D
ODA	D	M	D	M
SIDA	B	B	M	D
UNDP	D	B	B	B
USAID	D	D	B	D

4. Evaluation and Future Planning of Infrastructure Projects

Out of fourteen donor agencies described above, two main donor agencies in Asia, namely the Asian Development Bank (ADB) and the Overseas Economic Cooperation Fund (OECF) of Japan, have been selected for a detail study. The study concentrated on the evaluation functions of these two donor agencies, the management information needs and the role of evaluation, and the

effectiveness of using evaluation information for the future planning of infrastructure projects. The detail study was conducted by visiting both ADB and OECF, and obtaining views from the professional staff of various departments by means of questionnaires and open ended discussions.

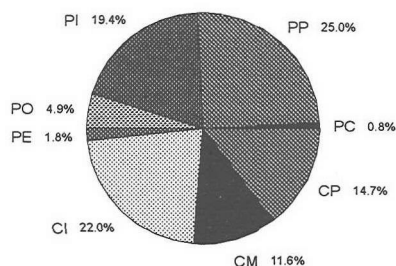
From the detail study it was found that the individual project evaluations constitute the main activity of the evaluation function. If evaluations are carried out on the project basis alone, the agency finds it difficult to obtain necessary knowledge on the impact of development assistance, which goes beyond the bounds of normal project evaluation, and usually entails general judgments on the macroeconomic behavior, policy environment and institutional capacity of the recipient country. Moreover the evaluation functions of these donor agencies are not well equipped to address the senior management information needs, due to narrow concentration on project evaluations. Therefore, strategic level decisions regarding the amount of assistance needed for infrastructure sector, the sub-sectoral distribution of aid on infrastructure and various others were not backed by a proper knowledge of how these aid works on the recipient country.

5. Evaluation and Performance of Infrastructure Projects

Through evaluations of both successful and unsuccessful projects, knowledge and experience is generated to enhance future development assistance. Evaluations contribute to the learning process in organizations. In that evaluations demonstrate which strategies and methods are successful, or unsuccessful, and which factors encourage or hinder the attainment of the desired results and efforts. These factors relate to both project processing techniques and the condition of the country in which the project is implemented. The factors that come under these two broad areas have been identified by the ADB and are used to summarize post-evaluation findings of every project (ADB, 1987). The project processing factors include various stages of project cycle, while the country conditions include the macroeconomic aspects, policy aspects and institutional aspects of the recipient country.

In view of obtaining the relationship between the implementation stage and the evaluation stage of project cycle, data obtained from ADB funded infrastructure projects were analyzed in two different ways. Apart from that analysis other ADB publications were studied to obtain relevant information. Problems and issues encountered in the entire project cycle with other exogenous

factors of project performance are summarized in these documents which are based on the lessons learned from post evaluations of individual projects. Apart from these information, 102 infrastructure projects implemented during 1973-1988 in various Asian countries were selected for the analysis. The post evaluation reports of these projects were studied. It contains the reasons for any problems encountered during the project. These reasons were categorized into various stages of the project cycle and the country conditions respectively. By aggregating the number of problems encountered in each category, the importance of that



Project Performance Factors

PC - Project Conception

PP - Project Prep. & Design

PI - Project Implementation

PO - Project Operation

PE - Project Evaluation

Country Conditions

CI - Institutional Development

CM - Macroeconomic Environment

CP - Policy Environment

Figure 4 Relative Importance of Project Performance Factors

particular category to the project performance is established. Figure 4 illustrates the importance of each category on project success. There, the importance of each category on project success is given as a percentage. It shows that, preparation and design stage of the project cycle is the most important stage contributing to project performance followed by institutional factors of a country. Based on these results, it is clear that both project processing factors and country conditions are equally important for the success of a project.

Table 2 indicate the emphasis on various evaluation criteria of the ADB's evaluation guideline in comparison with the project performance factors. This clearly shows that, even though the project processing factors and country conditions are equally important (52% and 48% respectively) for the success of a project, the emphasis in

Table 2 Emphasis on Project Performance Factors (ADB)

Project Performance Factors	Relative Importance (%)	Emphasis in Guidelines (%)
Project Processing		
Project Concept	1	0
Project Preparation	25	20
Project Implementation	19	24
Project Operation	5	20
Project Evaluation	2	0
Country Conditions		
Macroeconomic	11	12
Policy	15	0
Institutional	22	24
Total	100	100

Table 3 Emphasis Given by Donors Other than ADB

Agency	Project Processing Factors	Country Conditions		
		Macroeconomic	Policy	Institutional
AIDAB	73	2	2	23
CIDA	80	2	4	14
DANIDA	74	22	0	4
BMZ	90	0	10	0
FINNIDA	100	0	0	0
IBRD	70	15	0	15
Netherlands	68	0	15	17
NORAD	65	5	10	20
ODA	90	0	0	0
OECF	100	0	0	0
SIDA	69	6	12	13
UNDP	63	10	15	12

evaluation is more biased towards project processing factors. The country conditions are only given 36% of emphasis. Within the country conditions, institutional factors are adequately dealt with appropriate emphasis. However, policy factors seems not adequately covered by project evaluations done in the ADB, even though, it deserves a considerable coverage according to the analysis. This

is a major shortcoming of project evaluations carried out in ADB. As such, there should be some means of incorporating policy related matters into the evaluation process in order to make development aid evaluation more effective. For the purpose of obtaining the emphasis given to various areas in the evaluation functions of other donor agencies, guidelines were analyzed in a similar manner as section 2. The results of this analysis is given in Table 3. It shows that in most of the donor agencies country conditions are given less emphasis compared to project processing factors. Within the country conditions, policy related factors are often neglected. As such, there should be some means of incorporating assessment of country specific factors into the evaluation functions of donor agencies.

6. Conclusions and Recommendations

This paper summarizes the main deficiencies found in evaluation of infrastructure projects which are implemented in Asia by major donor agencies. First it was found that the evaluation functions of most of the donor agencies are development oriented except a few. To improve the evaluation function, not only the performance aspects but also the institutional aspects to be considered by the donor agencies. Second, it was observed that most of the senior management information needs are not adequately met by the project evaluations. Project evaluations support the operational level decision making rather than strategic level decisions in donor agencies. Third, it was observed that all the project performance factors are not adequately dealt by project evaluations. Especially, the country conditions which are very important for project performance are not given much attention. Overall, it can be concluded that strategic level information needs coupled with exogenous factors surrounding projects implemented in the developing countries are not captured by the project evaluations conducted by most of the donor agencies operating in Asia. This might be the main deficiency which undermines the understanding of the effectiveness of development assistance provided to the developing countries.

Therefore, it can recommended that donor agencies have to go beyond project evaluations to take into account the overall pattern of development in recipient countries. Sectoral and thematic evaluations have to be used increasing by the donor agencies to overcome these shortcomings. Even in the project evaluations, much attention has to be given to assess recipient policy conditions, macroeconomic environment and institutional capacity along with the technical aspects related with project cycle. Also the information dissemination mechanism has to be designed such that all the potential users of evaluation information are

adequately covered with their respective needs. Senior managers should be given a synthesis of findings rather than unnecessarily detailed project evaluation results. Most of all, the donor agencies should understand the recipient country conditions through these evaluations rather than concentrating mainly on the efficiency and effectiveness of the aid delivery system.

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The paper focuses on the effectiveness of evaluation of infrastructure projects implemented in Asia. It is intended to highlight major deficiencies found in the evaluation function, which undermines the understanding of the effectiveness of development assistance. It was found that strategic level information needs coupled with exogenous factors related to project performance was not adequately captured by the present evaluation systems. It is recommended that donor agencies have to go beyond project evaluations to take into account the overall pattern of development in recipient countries. Donor agencies should understand the recipient country conditions through evaluations, rather than concentrating mainly on the efficiency and effectiveness of the aid delivery system.

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本報告はアジア諸国の社会基盤プロジェクトに対する開発援助の事後評価手法について検討したものである。すなわち、従来の個別プロジェクト評価ではプロジェクトの成否に関する評価は可能であるが、外的要因の究明や政策レベルで必要な情報の入手には必ずしも有効ではなく、ある特定の被援助国に対する全般的な援助効果を把握する上で限界があることを指摘した。本報告では適切な開発援助政策や援助計画の策定には開発援助プロセスの効率性や援助効果と共に被援助国の経済社会状況を大局的に把握することが極めて重要であることを指摘し、評価手法改善の方向を示した。