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**Program Evaluation of Official Development Assistance in
Infrastructure Related Fields for Papua New Guinea**

Executive Summary

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Preface

This report presents the results of a study titled “Program Evaluation of Official Development Assistance in Infrastructure Related Fields for Papua New Guinea”, carried out by Mitsubishi Research Institute Inc., under the commission of the Ministry of Foreign Affairs of Japan for the Fiscal Year 2003. The views and recommendations presented in this report do not necessarily reflect the official viewpoints of the Government of Japan and other organizations.

Executive Summary

1.1 Background and Purpose

Papua New Guinea (PNG) is the largest recipient of Japanese Official Development Assistance (ODA) in the Oceanian region. Since the Government of PNG attaches great value to the infrastructure sector in their policies, it is necessary to review past efforts and results in order to increase the efficiency and effectiveness of cooperation implemented in the infrastructure sector. Under such circumstances, this survey was carried out as a sector evaluation, to assess relevant cooperation implemented by Japan in the infrastructure sector of PNG and to obtain lessons and recommendations for more efficient and effective future cooperation. Furthermore, publishing the results of the evaluation will serve to ensure accountability.

1.2 Evaluation Methods

In this project, evaluation of ODA in infrastructure related fields in PNG, implemented between 1997 to 2001, was conducted with regards to the following three aspects; i) Relevance of objectives ii) Effectiveness of results iii) Appropriateness of processes. Firstly, to ensure a clear understanding of the evaluation subjects, discussions with related departments and experts at the Ministry of Foreign Affairs (MOFA), Japan Bank for International Cooperation (JBIC) and Japan International Cooperation Agency (JICA) were conducted so as to arrange Japan's ODA in infrastructure related fields into a kind of objective framework. Secondly, evaluation criteria and indicators were determined, and surveys were carried out in both Japan and PNG to collect information necessary for the evaluation. This was followed by evaluation works based on the information obtained and the drafting of reports based on the results of the evaluation.

However, this survey has some constraint owing to the following defects:

- (i) The technical restriction of information obtained through literature and field surveys
- (ii) The degree of goal achievement cannot be measured in quantitative way due to the lack of target and indicators setting.
- (iii) The result analysis is constrained due to the difficulty in proving the correlation between inputs and outcomes.

2. Overview of PNG During the Survey Period

2.1 Socioeconomic Conditions

PNG is a country consisting of a group of islands of various sizes. On the New Guinea Island where major cities such as the capital of Port Moresby and the second largest city of Lae are located, a mountain range with an elevation of over 3000m divide the country from east to west. Under such geographic conditions, the population is roughly 5 million people and over 800 tribal languages are in use.

The population increased by just over 2% annually during the period under evaluation. The population increased from roughly 4.5 million in 1997 to roughly 5.2 million in 2001. Of these people, over 80% live in rural areas.

Furthermore, the average life expectancy at birth is not only short at 57 years, but the mortality rate of children under 5 years old is 90 per 1000 people. The literacy rate for adults is low at 35% and there are many social issues ranging from health and sanitation to problems with education.

In the macroeconomic aspect, as the exchange rate of Kina, PNG's national currency to US dollar worsens, the aggregate GDP continues to decline. The nation's budgetary balance is also declining.

In international trade, with the exception of 1998, exports have been relatively stable on a monetary basis, but imports are continuously declining. With the exception of 1997 and 2001, the rate of increase of the consumer price index remained in double digits, contributing to further inflation. In addition, the overall external debt expanded to a scale equivalent to that of the aggregate GDP. As these indices show, the economy of PNG suffered greatly during the evaluation period.

The economy of PNG is a co-existence of a subsistence economy and a money economy, with primary industries such as mining and agriculture accounting for a large part of the economy. Major export items are primary products such as metals and minerals, crude oil, and lumber. Australia, Japan, Germany, and the United States are major trade partners and exports from PNG to Japan account for over 10% of all exports, making it the second largest trading partner next to Australia which accounts for just under 30% of exports. As for PNG's imports, Australia is the largest source of imports, accounting for over 50% of all imports while imports from Japan account for around one tenth of Australia's.

Over 60% of exports from Japan to PNG consists of transport equipment and combined with general equipment account for around 80% of the total, while copper ore and wood products account for around 75% of total exports from PNG to Japan.

2.2 PNG's Development Policy

Given PNG's geographic conditions such as dispersion and isolation, in order to promote education, secure health and hygiene, and stabilize the livelihood of the nation's citizens, the securing of transport means between rural areas inhabited by over 80% of the population and the major cities is considered an important policy area. Furthermore, securing transport means between major cities and the North-West region of New Guinea Island, the major production area for the major industries of natural resources and agricultural products, has become an important issue.

The Government of PNG drafted a "Medium Term Development Strategy 1997-2002" for the evaluation period. This strategy positions transport infrastructure as a high priority policy area that is indispensable to promoting policies in the other three high-priority policy areas of health, education and the private sector.

In order to achieve the Medium Term Development Strategy 1997-2002, a "Medium Term Resource Framework 1997-1999" was developed and resource allocation to the infrastructure sector was given considerable weight among the five priority areas.

2.3 Public Investment Program in PNG and ODA Trends for Major Donors

From 1998 to 2002, the infrastructure sector accounted for under 40% of the entire public investment program of PNG, making it the largest component of public investment. Additionally, in terms of PNG's public expenditure forecast and funding from 1998 to 2002, loans and grants from foreign governments and international organizations accounted for around 70% of direct project financing, making the funding of public investment highly dependent on ODA.

For sector-based bilateral ODA commitments to PNG, social infrastructure and services and economic infrastructure and services account for a high proportion, while in 2001 transport and communications accounted for 51%.

On the other hand, for total ODA net among DAC countries, Australia was the largest ODA donor country and accounted for around 70% of expenditure by all donors. This proportion grew every year from 1997 to 2001. Japan is second to Australia and from 1997 to 2001, accounted for 12-20% of expenditure by all donors.

Total ODA net by international organizations accounted for around 16% of all expenditure in 1997 but this decreased to around 2% in 2001. In 1997, in particular, the European Commission was the largest donor at 12% but in 2001 this amount decreased to around 2%. In 1997, the Asian Development Bank accounted for 2% next to the European Commission, but in 2001 this figure was negative.¹

For government loans to PNG, Japan's contribution rose from 43% in 1997 to 87% in 2000,

¹ Since it is the total ODA net, if return payments exceed loans, the amount is negative.

making it the number one lending country. For grants, Australia accounted for around 80%; making it the largest donor country. On the other hand, Japan is the second largest donor country next to Australia but accounts for less than 10% of grants, which is relatively small compared to Australia.

3. Evaluation Results

3.1 Evaluation of Relevance

3.1.1 Compatibility with Japan's High Order ODA Policy

(1) Compatibility with the ODA Charter

According to the “ODA Charter (approved by the Cabinet in June 1992),” under the category “1. Basic Principle,” it states, “Japan...is committed to the principle of supporting the initiative of developing countries and its human resource development, various domestic institutions including infrastructure (socioeconomic infrastructure) and the improvement of basic living conditions” in implementing ODA.

Under the category “3. Priority”, it also states “Priority will be placed on assisting infrastructure improvement, which is prerequisite to socioeconomic development.”

As can be seen, Japan's infrastructure development assistance towards PNG is in accordance with the ODA charter.

(2) Compatibility with Medium-Term Policy on ODA

The “Medium-Term Policy on ODA (August 1999)”, based on the ODA Charter, raises “support for economic and social infrastructure” as an important issue, stating that, “in accordance to the situation of developing countries, the development of economic and social infrastructure for fields such as transport, communications, electricity, river and irrigation facilities as well as the living environment of urban and rural areas will continue to be supported.”

Also, for the “Priority Issues and Sectors by Region,” toward the Oceanian region that PNG belongs to, “the countries of the region share an awareness of the necessity to achieve economic self-reliance through economic reforms and private-sector development and are involved in fiscal and administrative reforms by themselves”. One of the importance points is “creating a foundation of economic and social activities and the development of economic and social infrastructure to overcome the dispersal of islands and geographic isolation.”

As shown, Japan's assistance toward the development of infrastructure implemented from 1997 to 2001 in PNG is in accordance with this mid-term policy.

3.1.2 Compatibility with the Development Needs of PNG

Assistance for transport and roads in the field of economic infrastructure development will contribute to the overcoming of geographic conditions specific to PNG. PNG's national development plan (the Medium Term Development Strategy 1997-2002) positions the development of transport and other economic infrastructures as one of the fields for high-priority policies, in parallel with health, education, and private sector, and it is compatible with Japan's assistance.

Furthermore, Japan's assistance in the fields of broadcasting and water supply, as part of the social infrastructure development, contributes to improve living conditions in the various dispersed regions where conditions make it difficult to secure domestic means of travel and this was highly appreciated at hearings with relevant organizations.

3.1.3 International Agreements Regarding the Field of Infrastructure Development

International agreements regarding the Oceanian region of which Japan is a part, include the Asia-Pacific Economic Cooperation (APEC) "Osaka Action Agenda (1995)" and the "Manila Action Plan for APEC 1996 (MAPA96)".

Under these agreements, the cooperation such as "improvement of economic infrastructure" is stated in the field of economic and technical cooperation. Japan's assistance in infrastructure development implemented in PNG from 1997 to 2001 is therefore regarded as being in line with international agreements regarding assistance towards the Oceanian region.

3.1.4 Conclusions

Japan's assistance towards PNG in the field of infrastructure development is in line with Japan's ODA upper policy and international agreements regarding the field of infrastructure development, which also meets PNG's development needs.

3.2 Evaluation of Effectiveness

This section evaluates effectiveness of Japan's ODA towards PNG in the field of infrastructure development in achieving its final objectives of "economic independence" and "overcoming geographic islands dispersion and isolation". Evaluation was conducted at the following levels; inputs and outputs, mid-term objectives, and final objectives.

3.2.1 Inputs and Outputs

Japanese cooperation implemented from fiscal year 1997 to 2001 by sector includes 2 transport projects (a loan and a general grant: 15.36 billion yen total), 4 road projects (2 loans and a general grants each: 15.587 billion yen total), 1 broadcasting project (general grant, 0.795 billion

yen), and 9 water supply projects (1 general grant, 2 development studies, and 6 grassroots aids: 1.118 billion yen) for a total investment of 32.86 billion yen.

As a result of this, the following outputs were obtained.

(1) Transport Sector

As a replacement for a decommissioned runway, an existing incomplete runway (1,720m) was paved, and an apron was also equipped to enable the air service at Rabaul Airport to upgrade its fleet from a 60-seater to an 85-seater fleet. Air traffic control towers and aeronautical safety facilities were upgraded at 2 airports. A total of 3 terminal buildings (2 domestic and 1 international) were newly constructed at 2 airports. 72 trainees (6 overseas and 66 for domestic OJT programs in PNG) were provided technical training.

(2) Road Sector

A total extension of 244.87km of roads was reconstructed. This includes 81km of new roads, 163km of donated road improvements, and 0.87km of accessory roads improvement to accompany a bridge replacement. Bridges in 25 areas were improved. This included 3 replacements while the remaining 22 were newly constructed or improved. 39 technical trainees (including all transport sectors) were trained.

(3) Broadcasting Sector

One studio facility, one broadcasting facility, 2 transmitters, and one VHF transmitting antenna was constructed and the East New Britain Province national radio station facility was renewed. 54 technical trainees (all in the communications and broadcasting areas) were trained. Of these, according to NBC data, NBC provided technical training under their jurisdiction for 4 trainees over the 4 years from 1997-2001 for a period ranging from 2 weeks to 2.5 months.

(4) Water Supply Sector

Under a general grant (single case), 1 pump station, 1 water treatment plant and 1 distributing reservoir were constructed. However, since one area under the responsibility of the Government of PNG remains incomplete, it is not fully functional even after project completion. Within the 6 grassroots grants, 2 outputs, e.g. the installment of 2 water storage tanks, were confirmed.

3.2.2 Impacts on the Mid-Term Objectives

This section evaluates the extent of achievement for the mid-term objectives of the “promotion of domestic trade and exchange” and the “stability of regional foundation of living” for

the relevant sectors through the above mentioned inputs and outputs.

The growth of airport traffic volume and other indices are affected by impacts from national economic trends that make it harder to assess the precise contribution of Japanese assistance. But the effect on each sector, such as contributions to the maintenance and improvement of the national network system in the transport sector, the shortening of travel times in the road sector, the recovery of regional broadcast coverage in the broadcasting sector, and beneficiary population of water supply sector support were confirmed.

3.2.3 Impacts on the Final Objectives (Reference)

Here the spillover impacts of Japan's infrastructure sector cooperation on PNG's society and economy were evaluated. As a result, since the amount of assistance by Japan is only a small part of the gross ODA amount, the direct impacts of Japanese ODA cannot be confirmed. Also, the trend of national indices shows economic strength and independence have not yet achieved.

3.3 Evaluation of Appropriateness of Processes

3.3.1 Information Exchange and Discussions with Involved Parties for ODA Policy Making and Implementation

(1) The Status of Coordination and Discussions with the Government of PNG

■ Discussions before the Request

According to the Japanese Embassy, up until year 2002, official discussions on requested projects have been held with the PNG's Department of National Planning & Rural Development (DNPRD) roughly every quarter. In addition, the official policy discussions are being carried out starting from year 2003. The Japanese Embassy takes these discussions into account and accepts requested projects. It is also apparent that discussions and coordination with the Government of PNG are taking place.

■ Request Process

According to the Japanese Embassy, the JICA's PNG Office and the PNG government, and related organizations, as for the loans and general grants, the project requests are submitted from related executing organizations and agencies to the DNPRD which functions as the donor counterpart. And after the internal coordination within the DNPRD, requests are made to the Japanese Embassy. There is no apparent problem with the selection and adoption of projects.

In terms of grassroots projects, requests from regional communities and NGOs are made directly to the Japanese Embassy. After being reviewed 3 times at the Embassy, final approval is

granted from the Ministry of Foreign Affairs. There is no apparent problem with this process.

■ **The Selection Process for Requested Projects within the Government of PNG**

Based on the hearing to the Japanese Embassy, the JICA's PNG Office, the PNG government and related agencies, the DNPRD of the PNG Government conducts internal evaluation by a committee as part of the project selection process in accordance with the "Medium Term Development Strategy 1997-2002" to coordinate the needs of development projects. Therefore, since needs coordination makes no duplicating projects, the process is seen as appropriate. However, since until year 2002, the DNPRD has not prioritized the requests of submitted projects, it can be said that the function of internal coordination by the PNG Government has not functioned adequately.

(2) The Existence of Coordination and Discussions between JICA and JBIC

In terms of projects requested by the DNPRD, based on the result of hearings with the Japanese Embassy, JICA, and JBIC, it was confirmed that the discussions between DNPRD, JICA and JBIC have been held.

(3) The Existence of Coordination and Discussions among Other Donors

It was confirmed that Japan exchanges information with other donors, when it is considered that those information exchanges will contribute to the efficient implementation of projects in the planning, proposal, and implementation of ODA policies towards PNG.

(4) The Existence of Coordination and Discussions with NGOs and the Private Sector

Based on the hearing to the Japanese Embassy and locally involved organizations, the relevant government organizations of Japan have not entered into official discussions with NGOs when drafting the ODA plan for PNG.

3.3.2 The Assessment Mechanism for the Infrastructure Sector

According to the Japanese Embassy and the status of the completion reports, it was found that the completion and project effect of some grassroots projects with written confirmation cannot be obtained.

3.3.3 Conclusions

With regards to the exchange of information and discussion for ODA policy making and implementation among the involved parties, the Japanese Embassy has been held official discussions roughly every quarter with DNPRD regarding requested projects as part of meetings for the

management of projects in progress. In addition to this, official policy discussions were carried out from year 2003 to discuss the handling of pre-request projects. There is no apparent problem with the selection and adoption of requested projects.

It was also confirmed that the Japanese Embassy holds discussions with the JICA's PNG office regarding projects requested by DNPRD of the PNG Government but has not had regular official discussions with other donors.

Furthermore, in terms of assessment, confirmation of the completion and effects of some grassroots projects indicates concern with regards to inadequate monitoring.

4. Recommendations for Cooperation towards PNG in the Infrastructure Development Sector

As a result of this evaluation, the following are recommendations for future cooperation in the field of infrastructure development towards PNG.

(1) Consideration for further coordination and cooperation for projects among donors for the planning and implementation of ODA policies

In order for the Japanese Embassy, JICA, and JBIC to enhance the effects of cooperation, the strengthening of coordination between donors in the selection of projects is desirable (such as the division of roles among new development projects and maintenance projects among donors or the combination of ODA schemes, etc.).

(2) Further Cooperation for the Capacity-building of DNPRD of the PNG Government

In order to smooth out the project request process, further capacity-building by DNPRD of the PNG Government is necessary.

As a means to achieving this, long-term training in Japanese local government (major cities designated by government ordinance, etc.), is desirable for strengthening of training programs at DNPRD through JICA schemes.

(3) Strengthening Japan's monitoring of the implementation progress and effects of grassroots projects

It is necessary to strengthen Japan's monitoring of the implementation progress and effects of grassroots projects. Therefore, the establishment of mechanism such as to utilize intellectuals in PNG is desirable in order to strengthen the monitoring functions of the Japanese Embassy.