

Summary of Terminal Evaluation

1. Outline of the Project	
Country : Republic of Burundi	Project title : Rehabilitation of Public Transportation Project / Projet de Réhabilitation du Transport Public
Issue : Transportation	Cooperation scheme : Technical Cooperation
Division in charge : Transportation and ICT Division 2, Economic Infrastructure Department	Total cost (At Terminal Evaluation) : 345 million yen
Period of Cooperation	(R/D) : 1 st April 2009 - 31 st March 2012 (Extension) : 1 st April 2012 – 1 st July 2012
	Partner Country's Implementing Organization : Ministry of Transport, Public Works and Equipment, Office des Transports en Commun (OTRACO)
	Supporting Organization in Japan : -
	Related Cooperation : Emergency Study on Urban Transportation in Bujumbura (2006), Grant Aid on Rehabilitation of Public Transportation (2009)
<p>1-1 Background of the Project</p> <p>Since the independence from Belgium in 1962, Burundi has been suffered from the ethnic violence between Hutu and Tutsi, and years of civil war have impeded investment in infrastructure and its maintenance.</p> <p>The civil war for last more than 10 years has been terminated in SEP 2006 and the government of Burundi has tried to achieve " Equitable and sustainable growth", which is one of the policies of Poverty Reduction Strategy Paper (PRSP) , by activating economy and social activities.</p> <p>Accordingly, the improvement of infrastructure in the rural areas where 90% of the total population resides is imperative for the policy to succeed. In such situation, bus is one of the most important means of public transportation connecting Bujumbura, capital of Burundi, and rural areas.</p> <p>OTRACO, which conducts almost of all bus operation in Burundi, has owned approximately 100 buses before the civil war. However, the bus maintenance has not been done properly because of the civil war and not only buses but equipment for maintenance and facilities have become older gradually.</p> <p>Based on the background, the Government of Japan has proposed through the Emergency Study on Urban Transport in Bujumbura to improve the overall situation of the urban transport system in the capital by formulating an urban transport plan, including technical support to OTRACO.</p> <p>Thereby, the Government of Burundi requested the technical assistance to improve the bus service qualitatively and quantitatively by OTRACO to the Government of Japan. Based on the request, "Rehabilitation of Public Transportation Project" has been started since April 2009 with the duration of three and a quarter years with the aim of improvement of the bus service qualitatively and quantitatively by OTRACO in cooperation with JICA.</p> <p>As the cooperation project relevant to this project, 86 buses have been provided to TORACO in 2009 through the Project of Rehabilitation of the Public Transportation which is Japanese Grant aid.</p>	

1-2 Contents of Cooperation

The aim of the Project is to improve the service of bus operation quantitatively and qualitatively through strengthening the institutional capacity of OTRACO and staff

- (1) Overall Goal :
The movement of people increased through improvement of public transportation
- (2) Project Purpose :
The service of bus operation by OTRACO improve quantitatively and qualitatively
- (3) Outputs :
 - 1) Capacity of bus management of OTRACO is improved
 - 2) Capacity of bus maintenance of OTRACO is improved
 - 3) Capacity of bus operation control of OTRACO is improved
 - 4) Function of branches of OTRACO is reactivated
- (4) Inputs

Japanese side : Total cost JPY 345 million

Number of Japanese experts dispatched : 3 long-term and 3 short-term 3 experts (75.50M/M)

Number of trainee dispatched in Japan : 7

The amount of equipment provided : JPY 57,101,010

Local Cost : JPY 16,165,000

Burundi side : Total cost JPY 0

Number of Counterpart : 7

Land and facility Provided : Office rooms for the Project in OTRACO building

* The exchange rate (OANDA. <http://www.aonda.com/>. The rate in 2nd July has been used

2. Outline of the Evaluation team

Japanese side	Mr. Shigeki MIYAKE	Director, Transportation and ICT Division 2, Economic Infrastructure Department, Japan International Cooperation Agency (JICA)	
	Mr. Yutaro KANEKO	Transportation and ICT Division 2, Economic Infrastructure Department, Japan International Cooperation Agency (JICA)	
	Ms. Chiaki YAMADA	Evaluation Analyst, Pegasus Engineering Corporation	
	Mr. Kazuo ANDO	Interpreter, Japan International Cooperation Centre	
Burundi side	Mr. Philbert NSANSAMAHORO	Advisor of General Direction, Ministry of Transport, Public Works and Equipment	
	Mr. Nibitegeka HERMENEGILDE	Director, Office des Transports en Commun (OTRACO)	
Period of Evaluation	1st April 2009 to 1st July 2012	Type of Evaluation	Terminal Evaluation

3. Results of Evaluation

3-1 Project Achievement

- (1) Achievement of the Project purpose

Project purpose : The Project purpose is largely likely to be achieved except the improvement of the bus service qualitatively.

Based on the revised bus operation plan, the number of bus routes has been expanded, and the frequency of bus operation has been increased. These results mentioned above have resulted in covering 80% of the overall land in Burundi. Moreover, the number of passengers is expected to increase by approximately 11 times (137 passengers in 2009 and 1,582 passengers in 2011) as compared to the beginning of the Project. The number of passengers is estimated to be 1,701 in 2012.

During the Project, the training has been implemented on each working group and Departments. Especially, it produced positive changes on the capacity and the professional awareness of mechanics and drivers. OTRACO has undertaken great changes, for instance, proper bus operation management and punctual bus operation become possible. Moreover, new services such as rent-a-bus for ceremonial occasions have been launched.

On the other hand, based on the baseline survey conducted in January 2012, OTRACO is still lower than private bus companies in terms of the accessibility, the number of bus stops and the regularity of operation. OTRACO needs to improve the services for passengers, such as the establishment of parking in the city, training of the safety driving for bus drivers and the increase of the number of bus stops.

(2) Achievement of Outputs

Output 1 : Largely Achieved

86 buses were provided by the Japanese Grant Aid and the bus operation plan was revised based on the database and the results of baseline survey. As a result, the number of passengers has increased, which is approximately 3 times larger in 2012 compared to those of 2009. On the other hand, appropriate staff allocation based on the bus management plan has been achieved in the headquarters of OTRACO, there are still several issues to be considered for Department of Follow-up and Monitoring. The budget has been executed based on the plan. The income of OTRACO is expected to be approximately tripled in 2012 compared to the beginning of the Project(1,422 million FBU / 2009, 3,976 million FBU / 2012, including subsidy) . Furthermore, OTRACO has started purchasing new vehicles using its own funds, and a few vehicles are supposed to be purchased every year according to the medium- to long-term plan.

Output 2 : Achieved

Concerning the capacity building, the capacity of mechanics has been improved certainly through the training and they are confident and proud of their skills and capacity as mechanics. They also have started in-house training about simple repair for drivers. Work contents and procedure of each section, such as maintenance, spare parts and statistic have been clarified because the manuals for maintenance and management have been updated. Before the beginning of the Project, bus inspection has not been done periodically and buses have been repaired only

when they are broken. Through the project activities, the system/procedure for bus maintenance such as periodic inspection and diagnostic of buses has been established. Moreover, spare parts utilized for inspection and repairing have been classified and allocated according to the purpose of use. As a result, it is easy for mechanics in Maintenance Department to figure out the number and type of parts left.

Output 3 : Partly Achieved

OTRACO had not controlled bus operation plan systematically before the beginning of the Project, and the bus operation plan has been developed based on an individual's experience. Therefore, the plan and management of operation control had not stabilized the quality of maintenance and services. In order to create a bus operation plan appropriate for needs of bus users, bus operation control tools, such as Bus Line Diagnosis Chart, Bus Vehicle Diagnosis Chart have been developed in the Project. As a result of using tools mentioned above, current issues of the operation control, strategy design for issues and how to improve the bus operation control have been clarified. However, there is a necessity to further strengthen the collaboration between Transport and Statistic section in the future. More time will be needed if OTRACO utilizes the bus operation control tools across the entire organization efficiently. As for the service of bus operation, as the number of bus operation has been increased, the number of accidents has been increased. Therefore, the training about the safety driving has been started. After the end of the Project, it is necessary to continue the training.

Output 4 : Achieved

Although Ngozi branch has been established in 2008, there was only 1 route operated and it was not practically functioning at the beginning of the Project. Gitega and Bururi branches have been established in 2010 and 2012 respectively. At the terminal evaluation, there are 25 in Gitega, 16 in Ngozi and 8 Bururi respectively in the number of bus routes. The bus operation management of 3 branches has been managed by headquarters. Not only new services such as rent-a-bus for ceremonial occasions and school bus has been started but also the bus operation management and the small-scale bus maintenance have been implemented at branches' judgement. Considering several issues such as distances between the headquarters and the branch office, availability of human-resource etc., the present operational system are suitable for both headquarters and branches. Concerning the function of 3 branches, the operational system and the small-scale maintenance system have been conducted, namely, it can be said that the branch function of OTRACO has been reactivated.

3-2 Summary of evaluation result

(1) Relevance : High

“The infrastructure management for the economic growth” has been taken as one of important issues in Poverty Reduction Strategy Paper (PRSP), and it stated that the restoration and modernization of infrastructure would be the prioritized area. “Policy document for Ministry of

Transport, Public Works and Equipment 2006-2010” has addressed that the improvement of mobility at national level has to be achieved by 2010.

Concerning the Japanese Country Assistance Program for Burundi, the consultation has been held between the governments of Japan and Burundi in 2006. They both agreed to focus on the development of infrastructure and human resource, and also agreed to support the transportation and traffic sectors as a part of infrastructure development.

Since there is no railroad in Burundi, bus service is a main transportation among cities and between urban and countryside for people. Nevertheless there are several private companies, they have not operated buses on inter-urban routes which might be unprofitable routes. Hence, people have to depend on OTRACO for the mobility to countryside.

To improve capacity of bus management, bus maintenance, bus operation control of OTRACO and to reactivate functions of 3 branches are an appropriate approach to improve the bus operation service quantitatively and qualitatively. As seen above, the relevance of the Project in Burundi’s national policy, the Japanese Country Assistance Program for Burundi, People’s needs and the project approach is high.

(2) Effectiveness : Moderate

Output 1 and 2 aim to improve the capacity of bus operation and maintenance of OTRACO respectively. Output 3 also targets the improvement of capacity on OTRACO’s bus operation control. The aim of Output 4 is to reactivate the function of 3 branches.

Although each output has constituted effectively the achievement of the Project purpose, there is a still challenge in improving the service of the bus operation. The Project logic is that if outputs have been achieved, then the Project purpose has been achieved by itself. However, it has not been appropriate in the Project, therefore, the effectiveness of the Project is moderate.

(3) Efficiency : Relatively High

Exchange seminars have been held 3 times with Office National De Transport En Commun (ONATRACOM) during the Project. ONATRACOM is quite similar with OTRACO in the institutional, financial and operational aspects Participants had a productive dialogue between seminars.

Challenges of OTRACO staff and OTRACO itself have been clarified after the implantation of the capacity assessment. Types of approach to overcome the challenges also become clear.

Furthermore, the input of Japanese experts, whose sectors in charge are appropriate for the project and communication skills are high, is definitely an encouraging factor for the progress of the activities. As the above, it can be said that inputs during the project have contributed the achievements of outputs.

(4) Impact : Relatively High

If the capacity of bus management and bus operation control are improved, and the number of bus

route and bus operation brought by the provision of 86 buses is maintained, it can be said that the possibility of achievement on the overall goal is high.

Ripple effects have been confirmed through the interview and questionnaire as below.

- Not only mechanics are confident of their techniques through the training but they have started the in-house training by themselves and for drivers.
- The number of passengers has been increased because of the increase on the bus routes and bus operation.

Negative impacts have not been found at the terminal evaluation. As mentioned above, a few positive impacts have happened. It is said that the impact is relatively high.

(5) Sustainability : Moderate

Policy Aspects

OTRACO is a public corporation under Ministry of Transport, Public Works and Equipment and its mission is to transport people by bus. According to the policy document, "Policy document for Ministry of Transport, Public Works and equipment 2006-2010", OTRACO is recognized as an implementing agency to improve People's mobility at the national level. Since the privatization of OTRACO has not been planned, the fundamental policy will be continued for the foreseeable future.

Institutional / Organizational Aspects

In order to maintain the service of bus operation, OTRACO has to offer the better job environment such as benefit packages and bonus for staffs. And re-training for not only working group but mechanic and driver will be necessary to establish the capacity and technique acquired through the Project.

Financial Aspects

The Project enabled to calculate the data of income and expenses on each bus route through the project activities. As the result of that, OTRACO made it possible to recognize the number of unprofitable bus routes and the amount of deficit on them. For the future, it is important for OTRACO to make the income and expenses stable and to ensure the subsidy for covering the unprofitable bus routes.

Technical Aspects

Techniques and knowledge transferred to OTRACO staff through the project has corresponded to their needs. However, it will take a time for staff to secure the technical durability. The implementation of training continuously will be vital in the future.

3-3 Factors that promoted realization of effects

(1) Factors concerning to planning

Adoption of working groups : Working group has been organized each department at the beginning of the Project. It is in charge of sharing information from the Project to departments and then sections,

discussing and sorting out problems and implementing activities as the result of that, the project activities have been implemented smoothly and effectively.

(2) Factors concerning to the Implementation Process

Factors have not been found.

3-4 Factors that impeded realization of effects

(1) Factors concerning to planning

The dispatched periods of the Japanese expert of bus service management : Although the Japanese expert of bus service management dispatched contributed to improve the capacity of bus operation management, timing of dispatch was from the second year of the project, therefore, the length of time to transfer the techniques was not enough. It will take more time for OTRACO to utilize the bus operation control tools effectively. Before the end of the Project, the practice of tools should be settled down to the project.

(2) Factors concerning to the Implementation Process

The occurrence of a traffic accident : After the number of routes has been expanded through the provision of 86 buses in 2010, and 95 traffic accidents have occurred in 2011. Processing of the insurance and vehicles repair has spent a huge amount of time, the Project has recommended OTRACO to allocate a staff for processing of the insurance. As the result of that, Correspondences and repair of vehicles after an accident became quickly and smooth. Conducting training of the safety driving lessons for drivers has resulted in decreasing traffic accidents happened.

3-5 Conclusion

In conclusion, the Project purpose “the improvement of the service of bus operation qualitatively and quantitatively” is largely likely to be achieved before the end of the Project. Concerning 5 evaluation criteria, Relevance, Efficiency and Impact are acceptable results. On the other hand, Effectiveness is not a satisfactory result and the service of bus operation qualitatively is expected to be improved. Concerning securing the sustainability, OTRACO needs to continue the activities and encourage staff to maintain the capability of techniques in order to keep up the skills and also establish a stable income. By doing these mentioned above, the Overall goal is expected to be achieved.

3-6 Recommendations

(1) Recommendations for OTRACO

a) Continuation of unprofitable routes

OTRACO operates mainly 4 bus routes such as ①Inner-city route, ②Inter-city route, ③School bus route and ④International route. ①Inner-city and ④International routes are cooperated with private

sector. On the other hand, about 80 to 90 percent of ②Inter-city routes and ③School bus routes are operated by OTRACO only. Especially, sustaining the ②Inter-city route has high social significance in order to secure the accessibility of citizens who live in the suburbs or regional area. These routes chronically fall into unprofitable routes because of trade-off between the profit by bus fare and the public welfare. ②Inter-city route now becomes profitable route (186 million BIF/year), however, it's because the Project thought that it's important to improve the balance of payments for the 1st stage then abandon the unprofitable routes. (Actually, deficit of 434 million BIF/year for School bus route; based on the estimation of year 2012). Considering the prospect of profit only, it seems rational to discontinue these routes. However, securing the minimum accessibility of citizens is social responsibility of OTRACO and OTRACO has to sustain these routes (even unprofitable routes) by adjusting the opinion of Ministry concerned and citizens.

b) Application of subsidy budget based on the data

For unprofitable routes which are supposed to sustain for the public welfare, necessary expense must be kept. OTRACO now becomes available to calculate the balance of each bus route by the support of the Project so that OTRACO shall establish the application and negotiation process of subsidy budget based on the data.

c) Purchase of the spare parts for buses and budget inclusion for renewing them

Buses provided from Japan in 2010 include spare parts for 2 years. However, after all spare parts are exhausted, rapid deterioration will be expected if they are not restocked. Moreover, neglect the minor damages and troubles, it aggravate the failure more seriously. In order to minimize the failure, it's necessary to appropriate 250 million BIF for the budget of spare parts in FY2012. And if OTRACO maintain all buses continuously, the necessary budget will increase about 5 percent per year relative to the budget in FY2012. Therefore the JICA suggest scrapping or renewing the decrepit buses by comparing maintenance and renewing cost.

(2) Recommendations for Ministry of Transports, Posts and Telecommunications

a) Guidelines of necessary routes and level of services for bus operation

In order to define necessary routes (even unprofitable routes) of OTRACO's operation, it's necessary to clarify the minimum accessibility for citizens to be secured by government and the level of bus services which satisfies citizens (such as for shopping or hospital visit). And government needs to indicate the frequency of operation and capacity for these routes. It's preferable to adjust cost sharing by citizens (fare) and government (subsidy) not to overburden each other when determining them. It's also necessary to refer the needs of citizens and resources of OTRACO when determining them.

2) Securement of subsidy and management of OTRACO

The routes and level of services determined above (2) a) are the one which satisfies "Civil Minimum" so that the lack of operation cost for sustaining minimum services should be covered by subsidy. The subsidy

should be applied base on the balance data suggested by OTRACO as mentioned above (1) b), however, it's important to make the check system which government can clarify the affairs of OTRACO regularly by the balance of cost and income, level of service and management of OTRACO to prevent the lax management.