conducted by Burundi Field Office/Rwanda Office: June 2017

Country Name	Rehabilitation of Public Transportation
The Republic of Burundi	Renabilitation of 1 ubile 11 ansportation

I. Project Outline

Background	Burundi struggled for the reconstruction and development from the long years of civil war that had been finally terminated in September 2006. Because no railway service existed in the country, bus transport was main transport mode for the ordinary population without its own vehicles. Whereas the bus transport service was provided by the Office of Public Transport (OTRACO), the private operators also provided the transport service by microbuses which were limited to profitable routes within urban areas and connecting urban areas. Therefore, the rural population relied on the bus transport service by OTRACO for their mobility. OTRACO has the head office in Bujumbura and branches in Gitega, and used to operate the bus transport service nationwide by more than 100 buses. However, their service decreased quantitatively and qualitatively to 41 routes operated by only 29 buses due to inappropriate maintenance of the buses and reduction of the number of staffs during the civil war. As a result, the rural population faced difficulty in transport with the limited bus transport service by OTRACO. Under those situations, it was necessary to revitalize fundamental operational capacity of OTRACO in order to reinforce the bus transport service by OTRACO.						
Objectives of the Project	well as reactive improvement of people.	 Overall Goal: The movement of people increased through improvement of public transportation. 					
Activities of the project	 Project Purpose: The service of bus operation by OTRACO improves quantitatively and qualitatively. Project site: Bujumbura and major cities in Burundi where OTRACO has branches Main activities: 1) Elaboration of basic management policy and bus operation plan of OTRACO, 2) Elaboration of basic policy of maintenance, 3) Elaboration of basic policy of operation control 4) Elaboration of basic policy of reactivation and management of the branches. Inputs (to carry out above activities) Japanese Side Burundi Side Experts: 6 persons 1. Counterpart personnel: 7 persons Acceptance of trainees in Japan: 7 persons 2. Land and Facilities: Office spaces for the Japanese experts in OTRACO. scale buses, spare parts set, etc. 						
Ex-Ante Evaluation	2008	Project Period	April, 2009 to July, 2012	Project Cost	(Ex-ante) 370 million yen (Actual) 343million yen		
Implementing	Ministry of Trai	nsport, Public Work	s and Equipment (MTPE: Ministè	ere des Transports, d	le Travaux Publics et de		
Agency	l'Equipment), Office of Public Transport(OTRACO: Office Des Transports en Commun)						
Cooperation Agency or Contract Agency in Japan	CDC Internation			,			

II. Result of the Evaluation<Constraints on Ex-post Evaluation>

Since April, 2015, the political crisis between the government and the oppositions has been escalated and threatened security of the country. In addition, the major donor agencies suspended direct supports to the government since the summer in 2015. While JICA permits entry only in the central areas of Bujumbura for security reasons, the field survey was carried out only in the center of Bujumbura and the number of OTRACO bus drivers, mechanics and passengers interviewed, who have been beneficiaries of the project, was limited though the project had been implemented in other cities.

<Special Perspectives considered in the Ex-post Evaluation> Verification of the Project Purpose

- Indicator 1 (the number of OTRACO bus passenger is increased): There was an inconsistent logic between the Project Purpose and its verifiable indicators since the indicator can be a result of the quantitative improvement of the bus operation service by OTRACO and it is overlapped with one of the verifiable indicators 1 for the Overall Goal. Therefore, in the ex-post evaluation, the achievement level of the Project Purpose was verified by the indicators defined in the PDM and supplemental information to assess the quantitative improvement of the bus operation service by OTRACO, such as the increase in the number of bus routes.
- Indicator 2 (service quality of OTRACO is improved): The indicator was not clearly defined how to assess improvement of service quality. At the time of terminal evaluation, it was assessed by safety of bus operation and passengers' satisfaction and the safety of bus operation was verified with the number of accidents. However, it should have been assessed by the proportion of the number of accidents against the number of the buses operated.

Verifiable indicators for the Project Purpose and the Overall Goal

The verifiable indicators in the PDM do not indicate s clear target values. Therefore, the achievement level of the Project Purpose and the Overall Goal were verified by the following aspects:

- For the Project Purpose: comparisons of the data defined by the indicators at the time of the beginning and the end of the project as assessed by the terminal evaluation in order to verify whether the service of OTRACO bus operation, such as the number of passengers and bus routes as well as the passengers' satisfaction, were improved or not.
- For the Overall Goal: comparison of the data defined by the indicators at the time of the project completion and at the time of ex-post evaluation in order to verify whether the number of OTRACO bus passengers increased and the financial balance of OTRACO improved.

1 Relevance

<Consistency with the Development Policy of Burundi at the time of ex-ante evaluation and project completion>

The project was consistent with the Burundi's development policies, "the Poverty Reduction Strategy Paper (2006)" and the policy document for "the Department of Transport, Ports and Telecommunication 2006-2010", which prioritized "restoration and modernization of infrastructure" and "improvement of accessibility on national level for the residents of Burundi", and these policy priorities had not been changed by the project completion in despite of no specific policy elaborated.

<Consistency with the Development Needs of Burundi at the time of ex-ante evaluation and project completion >

The project was consistent with the Burundi's development needs to increase mobility of the population and the goods between rural and urban areas through improvement of the bus transport service operated by OTRACO.

<Consistency with Japan's ODA Policy at the time of ex-ante evaluation>

The project was consistent with the Japan's ODA policy based on the policy dialogue on economic cooperation between Japan and Burundi (2006), which prioritized the two pillars of "establishment of peace" and "improvement of basic living environment", including rehabilitation of infrastructure and human resource development as cross cutting issues.

<Evaluation Result>

In light of the above, the relevance of the project is high.

2 Effectiveness/Impact

<Status of Achievement for the Project Purpose at the time of Project Completion>

The Project Purpose was achieved by the project completion. The annual total number of bus passengers of OTRACO increased from 349 thousand in 2010 to 1,701 thousand in 2012 (from January to May). It was because of the increase in the total number of bus routes operated by OTRACO, including the Bujumbura head office and branches of Ngozi, Gitega and Buruni which had been revitalized by the project¹, from 45 in 2009/10 to 178 in 2011and 2012. In addition, the grant aid by the government of Japan which provided OTRACO with 86 buses contributed to quantitative improvement of the OTRACO bus service. Also, improvement of the quality of OTRACO bus service was confirmed through enhancement the passengers' satisfaction and the safety of bus operation. According to the results of the baseline survey in January 2012, the passengers were satisfied with increase in the number of seats by introduction of large-sized buses, reduction of waiting time, and increase in the number of inter-urban routes, though the satisfaction levels for accessibility, travelling time, frequency of operation and regularity of operation were lower than the ones for the private bus companies. In terms of the safety of the bus operation by OTRACO, the number of bus accidents decreased from 29 in 2009 to 10 in 2010, but increased to 95 in 2011 then decreased to 61 in 2012. The sharp increase in 2011 occurred after the provision of the left hand drive buses by the grant aid project. Since it was presumed that the drivers had were not used to those buses, the intensive trainings for the drivers were conducted in 2011. As a result, the training effects brought about speed reduction and safer driving by the trained drivers.

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

The project effects have been mostly continued. The number of buses operated by OTRACO decreased from 106 in 2012 to 86 in 2016². It was because some buses were in bad condition after serious accidents and others were seriously damaged by disastrous road conditions in the rural areas. However, OTRACO has difficulty to repair the damaged buses because of the lack of spare parts, in particular for buses of large and medium sizes which are not available in Burundi. The total number of bus routes also reduced from 116 to 80 during the same period because the routes with low profitability were cut while the new ones were opened. On the other hand, the bus operation management tools introduced by the project have been continuously utilized for updating, revising and improving the bus operation plan since the project completion. Also, the quality of bus service by OTRACO has been sustained. According to 6 passengers³ interviewed by this ex-post evaluation, they have been satisfied with the provision of transport to remote areas, the low cost transport, and the ensured weekly schedule. All 6 passengers interviewed had the same perception about the service of OTRACO bus operation. The only complaint by the passengers interviewed was the passengers need to be await for long time. It is because of the unreliable daily operation without a fixed time table in contrast to the daily operation based on a time table during project implementation. The safety of bus operation has also been sustained through the number of accidents decreased to 54 in 2015 after the increase in 2013 and 2014. Since that was because of the newly-recruited drivers with insufficient experience, OTRACO delivered trainings for the drivers in 2014.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The Overall Goal has been partially achieved. After the project completion, the number of bus passengers of OTRACO increased from 1,692 thousand in 2012 to 2,150 thousand in 2014 because of the growing transport demand of the rural population. Although, it sharply decreased since 2015 due to low mobility of the population induced by the political crisis in May 2015, the downward trend has stopped by September 2016. Since the number of bus passengers directly affects revenue of OTRACO, the financial balance in 2015 has worsened compared to that in 2012 despite of the improvements in 2013 and 2014. The expenditure of OTRACO, such as operation and maintenance cost including spare parts, pneumatic, lubricants and fuel (diesel), has been always larger than their revenue. In particular, the installment payments for buses purchased in 2014 aggravated the financial balance in 2015 along with the sharp reduction of revenue. The financial balance shows a trend toward recovery by September 2016 compared to a previous year.

<Other Impacts at the time of Ex-post Evaluation>

There are some positive impacts by the project confirmed at the time of ex-post evaluation. The improved OTRACO bus services have

¹ At the time of project start, there was only Ngozi branch operating 1 route. After starting the project, Gitega branch and Buruni branch were opened in 2010 and 2012, respectively.

² From 2010 to 2013, three kinds of buses such as small, medium and large size were provided by this project and the grant aid of the government of Japan.

Four males and two females

contributed to creation of job opportunities outside of the country, such as in the eastern region of the Democratic Republic of Congo (DRC) and Uganda, for the young population of Burundi through the extended bus routes. In Burundi, since severe economic situation and business environment under high inflation have brought about higher unemployment rate in the country and have forced the population to seek opportunities outside the country. Under such circumstances, with the new routes for DRC and Uganda, the young people might have become easier to find jobs outside the country. In addition, the national flags of Burundi and Japan were drawn on the side of all buses. Since the buses go around the whole country, they have become the symbol of Japan and Japanese aid. No other negative impact by the project was confirmed at the time of ex-post evaluation.

<Evaluation Result>

In light of the above, the project achieved the Project Purpose and partially achieved the Overall Goal through the improvement of OTRACO bus service quantitatively and qualitatively. Therefore, the effectiveness/impact of the project is high.

Achievement of project purpose and overall goal Indicators Aim Results (Project Purpose) (Indicator 1) Status of the achievement: The service of bus Number of OTRACO bus passengers is (Project Completion) Achieved operation by OTRACO increased. [The number of passengers of OTRACO bus service] improves quantitatively (Unit: thousand/year) and qualitatively. 2009* 2010 2011 29 147 Inter-urban bus 67 Urban bus 507 107 282 School bus 836 Others (Gitega, Ngozi) 0 0 92 Total 136 349 1,582 From July to December [The number of bus routes] 2009-2010 2011 2012 Inter-urban bus* 79 79 22. 11 24 24 Urban bus School bus 12 38 38 1** 1 *** International bus 0 Unscheduled bus**** 0 36 Total 45 178 178 *Including routes operated by Bujumbura, Ngozi, Gitega and Bururi as of June, **Route between Bujumbura and Kigali (Rwanda) ***Route between Bujumbura and Dar es Salaam (Tanzania) ****Operated by request from market users (Ex-post evaluation) Mostly continued. The number of OTRACO bus passengers after the project completion is verified as the indicator 1 for the Overall Goal. The number of buses and bus routes operated by OTRACO decreased after the project completion. Although the routes with low profitability were cut, the new ones were opened.

Urban bus	24	34	22	15	15	
School bus	38	19	16	17	17	
International bus*	2	2	3	2	2	
Unscheduled bus**	24	27	23	22	22	
*The route is between Ruiumbura and Dar es Salaam (Tanzania). Uganda and						

2013

26

2014

31

2015

24

2016

24

 [The number of buses operated by OTRACO]

 2012
 2013
 2014
 2015
 2016

 106
 94
 93
 90
 86

2012

28

(Indicator 2)	
Service quality of OTRACO is improved.	

Status of the achievement:

(Project completion) Achieved

[The number of bus routes]

Inter-urban bus

 According to the results of the baseline survey, the passengers were satisfied with the improved OTRACO bus service, including increases in the number of seats by introduction of larger-size buses, reduction of waiting time for bus, and increase in the number of inter-urban routes but less satisfied with accessibility, travelling time, frequency of operation and regularity of operation.

^{*}The route is between Bujumbura and Dar es Salaam (Tanzania), Uganda and Democratic Republic of the Congo.

^{**} Operated by the request from market users

		buses	by the	Japan's g	rant aid proj	ect ⁴ . How		nsive trainings
		for the drivers and mechanics were conducted in order to reduce the number of accidents.						
		[The number of bus accidents] 2009 2010 2011 2012						
		2009	29	2010			_	51
		(Ex-post Evaluation)Partially Continued. ■ According to the passengers interviewed at the time of ex-post evaluation, they have been satisfied with the bus service by OTRACO, such as the provision of transport to remote areas, the low cost transport, and the ensured weekly schedule, but the unreliable daily operation making the passengers being wait for long hours. ■ The number of accidents decreased to 54 in 2015 after increasing to 84 in 2014. The technical training on driving skills is continuously required for ensuring safety drive. [The number of bus accidents] 2012 2013 2014 2015 2016 (as of Sept)						
(Overall goal)	(Indicator 1)	Status of achievement: Mostly achieved (Ex-post Evaluation) [Number of passengers]						
The movement of people increased through	Number of bus passengers is increased.							
improvement of public				1		T	(Unit: t	housand/year)
transportation.				2012	2012	2014	2015	2016
				2012	2013	2014	2015	(as of September)
		Inter-urbar	bus	305	349	344	278	202
		Urban bus		522	_	388		68
		School bus		535	334	926	568	464
		Others		329		436		374
		Total		1,692	- /	2,150	1,415	1,108
	(Indicator 2)	Status of achievement: Partially achieved						
	Balance of OTRACO is improved.	(Ex-post Evaluation) [Financial Balance of OTRACO]						
							t: million BIF)	
				2012	2013	2014	2015	2016 (as of September)
		Revenue		3,445	3,808	4,06	7 3,330	1,557
		Expenditur	re e	3,836	3,886	4,03	7 4,025	1,685
		Balance		-391	-78	3	0 -695	-108

Source: Terminal Evaluation Report, data and information provided by OTRACO at the time of ex-post evaluation, interviews with passengers (6), mechanics (10) and bus drivers (15)

3 Efficiency

Although the project cost were within the plan (ratio against the plan: 93%), the project period exceeded the plan (ratio against the plan: 108%) due to the delayed delivery of equipment procured by the project. Therefore, efficiency of the project is fair

4 Sustainability

<Policy Aspect>

The newly elaborated policy, "the Sectoral Policy of the Ministry of Transport, Public Works and Equipment" (2014-2025) prioritizes: i) insuring mobility of the population across the country, ii) improving the quality of transport service to the people, and iii) allowing the people to travel at low cost. It is expected that the importance of the OTRACO bus service will be ensured by the government policy. Although there is concern about continuity of the policy due to the political instability, the policy is likely to be sustained beside the case where a civil war occurs

<Institutional Aspect>

The organizational structure of OTRACO has been changed in order to enhance productivity of staffs, efficiency as well as rapidity in execution of the OTRACO mission. In terms of the Technical and Operational Department which is in charge of the bus operation and maintenance, 4 sections under the department were reorganized as the Supply and Stock Management Section, the Technical Section, the Operation Section and the Branch Management Section. The number of staff in OTRACO has been sufficient to implement the bus operation plan. The total number of the staff in OTRACO including the headquarters and branch offices increased from 167 in 2007 to 227 in 2016. However, the turnover rate has been quite high due to the low level of salary.

In terms of maintenance system of the buses owned by OTRACO, since there is no agency in Burundi and spare parts needs to be procured through the ones in Kenya. However, the international procurement system for the spare parts has not yet been established. <Technical Aspect>

The mechanics of OTRACO have obtained their technical skills based on the system for bus maintenance developed by the project,

⁴ The number of bus accidents includes not only improper maintenance and driving errors but also poor road conditions in remote areas.

such as periodic inspection, diagnostic inspection and parts classification and allocation, through the technical trainings by the project and sustained those skills at the time of ex-post evaluation. Also, the mechanics trained by the project have transferred their skills to the newly recruited mechanics. The bus drivers have also sustained their technical skills on the maintenance works for bus. They have followed the maintenance procedures through the internal meetings on a regular basis and they have continuously conducted the regular and daily inspection of the buses before the operation. In addition, the drivers have sustained their driving skills to operate buses safely. The technical training of "Professional bus driver training" for the drivers and mechanics was delivered by OTRACO after the project completion. For ensuring future prospect of sustainability from the technical aspect, regular trainings for mechanics and drivers are essential to sustain proper regular and daily maintenance by following the maintenance procedures in a precise manner. Also, in terms of driving technique, trainings for drivers, in particular for newly recruited drivers is necessary to sustain and to improve further safe operation of buses in the future.

<Financial Aspect>

As mentioned above, OTRACO has not earned sufficient revenue from the bus service to cover the O&M cost because of the decrease in the number of passengers caused by the socio-political crisis since May, 2015. In addition, the fares have not been perfectly collected because of frauds and thefts. Therefore, MPTE has provided the subsidy to OTRACO in order to cover the financial shortage. However, the amount of subsidy to OTRACO decreased from 232 million BIF in 2012 to 168 million BIF in 2016. More than 50% of the government's annual revenue was expected to be covered by the aid from partners. However, since the major donors, such as the European Union, Belgium, USA, and Germany, have suspended to directly provide the financial support to the government of Burundi, the government has not had sufficient fund to allocate for the government agencies. Under such situation, the new government requires OTRACO financially self-sustainable, but a lot of efforts will be necessary by the new management of OTRACO in the long run in order to stabilize the financial position. The future prospect for the OTRACO financial balance was unclear at the time of ex-post evaluation.

<Evaluation Result>

In light of the above, problems have been observed in terms of the institutional and the financial aspects of sustainability. Therefore, the sustainability of the effectiveness through the project is fair.

5 Summary of the Evaluation

The project achieved the Project Purpose and partially achieved the Overall Goal for the improvement of mobility of the population in the country, in particular in the remote areas, through the quantitative and qualitative improvement of the bus service by OTRACO. As for sustainability, OTRACO has not earned sufficient revenue and received the subsidy from the government to cover the O&M cost though OTRACO has the sufficient number of staffs with necessary technical skills for the bus operation and maintenance. The international procurement system for the spare parts has not yet been established as the institutional aspect. However, as the technical aspect, OTRACO obtained their technical skills based on the system for bus maintenance developed by the project through the technical trainings by the project, and OTRACO has sustained those skills at the time of ex-post evaluation. Moreover, the technical training of "Professional bus driver training" for the drivers and mechanics was delivered by OTRACO after the project completion. As for efficiency, although the project period exceeded the plan due to the delayed procurement of necessary equipment for the project activities, the project cost was within the plan.

In the light of above, this project is evaluated to be satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

[For OTRACO]

- OTRACO needs to establish the effective fare collection system. Installation of bus ticket sales offices in the central town and use of the branches as sales points for tickets (Gitega, Ngozi and Bururi) enable OTRACO to ensure cash income from the ticket sales. The sales point could be near the local administration offices to facilitate convenience for the bus users. In addition, all the passengers should be asked to present their tickets for verification when they enter the buses in order to tackle cheating fares.
- Increase of salaries for OTRACO staff is worthy of consideration. Drivers are constantly leaving OTRACO for better pay checks since
 the salary for some drivers is less than 50 USD per month which is not affordable to live in Bujumbura town. Though the increase of
 salaries may imply additional expenses for OTRACO, the staff may be more motivated and thus enhance their working skills. The
 increase in salaries may prevent them from "stealing" money and in the long term, OTRACO will gain skilled personnel and more
 revenues.
- It is recommended that OTRACO provide more training opportunities for mechanics and drivers on a regular basis at least once a year in order to sustain and to improve further their technical skills on proper maintenance of buses. In particular, delivery of technical training on driving skills should be obligatory for the newly-recruited drivers for ensuring safety drive. Also, before installation of the newly procured buses, the drivers who operate them must receive training in order to avoid accidents caused by driving errors.
- Since the government subsidies have been decreasing and the financial situation getting worse from 2015, OTRACO should find a way
 of more diversifying their business, such as rental of OTRACO parking spaces in the town of Bujumbura to the private companies or
 rental of some space at the terminal for kiosk.

Lessons learned for JICA:

- From 2010 to 2013, JICA provided with three kinds of buses such as small, medium and large size through this project and the grant aid of the Government of Japan. However, the spare parts of large and medium size of buses which were provided by the grant aid are not available in Burundi because there are no agencies, so that they have not been able to procure them in a timely manner. As a result, appropriate bus maintenance based on the repair skills transferred by the project has not been sufficiently conducted. Therefore, during the project implementation, in terms of not only the spare parts of small buses but also those of large and medium size provided by the grand aid, it should have carefully considered the viewpoint of establishing sustainable and timely procurement system for spare parts.
- To improve the safety of the bus service, technical trainings for mechanics and drivers on maintenance of buses and for drivers on

driving skills are effective, in particular for the newly procured buses, which have different characteristics from the existing ones, in order to avoid malfunctioning of the buses and driving errors. Therefore, JICA should design a project activity to conduct the training of repair buses during the project period in order to ensure sustainability of project effects, including sustainable operation of buses. In the case where there is a plan to replace buses during the project period of technical cooperation project, it is necessary to include training sessions for mechanics and drivers related to buses to be replaced.



The bus to be repaired at the garage of OTRACO Headquarter



OTRACO Bus station in Bujumbura