

Country Name	<b>Rural Road Maintenance System Development Project</b>
United Republic of Tanzania	

**I. Project Outline**

Background	<p>The total road length in Tanzania as of 2009/10 was 91,049 km of which 58,037 km were rural roads including district roads under the Prime Minister's Office Regional Administration and Local Government (PMO-RALG), and the operation and maintenance of rural roads was undertaken by the Local Government Authorities (LGAs) supervised by PMO-RALG with the budget from the Road Fund. Although the national development policies emphasized the importance of rural roads as a tool for rural development, 44% of them was in poor condition requiring rehabilitation works. Furthermore, the total length of paved rural road was 756 km which accounted for 1% of the total length of rural road. With this background, the government of Tanzania applied Labor Based Technology (LBT)<sup>1</sup> to rural road development and maintenance and implemented a technical cooperation project "Project for Capacity Strengthening on LBT Training at Appropriate Technology Training Institute (ATTI)" (2006 - 2011) supported by JICA. While the training capacity of ATTI was strengthened by the project, the development and maintenance of rural roads was still inadequate due to insufficient skills and experiences of contractees and contractors, lack of equipment, financial constraints, delay of execution of budget, and others. Under those circumstances, capacity development of PMO-RALG, the Regional Administrative Secretary (RAS), local governments and contractors along with the improvement of work process for maintenance of rural roads became urgent issues.</p>												
Objectives of the Project	<p>Through the capacity strengthening of PMO-RALG, strengthening of rural road maintenance procedures of LGAs, improvement of skills and knowledge of the responsible organizations, and establishment of the dissemination mechanism for rural road maintenance approach, the project aimed at the improvement of administrative services of rural road maintenance and the development of its nationwide expansion approach, thereby contributing to the improvement of rural road maintenance procedures and services in the target regions.</p> <ol style="list-style-type: none"> <li>1. Overall Goal: The rural road maintenance procedures and services of LGAs in Dodoma and Iringa regions are improved.</li> <li>2. Project Purpose: Administrative services of rural road maintenance provided by LGAs are improved in the target areas, and its nationwide expansion approach is developed.</li> </ol>												
Activities of the Project	<ol style="list-style-type: none"> <li>1. Project Site: Chamwino and Kondoa districts in Dodoma region and Iringa and Mufindi districts in Iringa region (model districts: Chamwino and Iringa / disseminated districts: Kondoa and Mufindi)</li> <li>2. Main Activities: <ol style="list-style-type: none"> <li>1) strengthening of the capacity of PMO-RALG for coordinating and supporting LGAs in collaboration with the former Ministry of Works (MOW) (MOW was reformed to the Ministry of Works, Transport and Communications (MoWTC) in 2015) on rural road maintenance,</li> <li>2) strengthening of the rural road maintenance procedures of LGAs in the model districts,</li> <li>3) improvement of the practical skills and knowledge of responsible organizations (concerned departments of the LGAs, contractors, etc.) on rural road maintenance through LBT application in the model districts, and</li> <li>4) establishment of the dissemination mechanism of rural road maintenance approach within the respective regions.</li> </ol> </li> <li>3. Inputs (to carry out above activities) <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Japanese Side</td> <td style="width: 50%;">Tanzanian Side</td> </tr> <tr> <td>1) Experts: 10 persons</td> <td>1) Staff Allocated: 29 persons</td> </tr> <tr> <td>2) Trainees received in Japan: 5 persons</td> <td>2) Land and Facilities: project office</td> </tr> <tr> <td>3) Training in the third country: 11 persons (Uganda and Kenya)</td> <td>3) Local cost: cost for utility of offices (electricity, water and telephone)</td> </tr> <tr> <td>4) Equipment: tractor, vibrating roller, plate compactor, engine pump, etc.</td> <td></td> </tr> </table> </li> </ol>			Japanese Side	Tanzanian Side	1) Experts: 10 persons	1) Staff Allocated: 29 persons	2) Trainees received in Japan: 5 persons	2) Land and Facilities: project office	3) Training in the third country: 11 persons (Uganda and Kenya)	3) Local cost: cost for utility of offices (electricity, water and telephone)	4) Equipment: tractor, vibrating roller, plate compactor, engine pump, etc.	
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Project Period	April 2012 - April 2016	Project Cost	(ex-ante) 489 million yen, (actual) 470 million yen										
Implementing Agency	Prime Minister's Office Regional Administration and Local Government (PMO-RALG) (PMO-RALG was reformed to the President's Office, Regional Administration and Local Government (PO-RALG) in 2016)												
Cooperation Agency in Japan	Eight-Japan Engineering Consultants Inc., Infrastructure Development Institute												

**II. Result of the Evaluation**

<Special Perspectives Considered in the Ex-Post Evaluation>

- The evaluation of the continuation status of Indicator 2 of the Project Purpose or satisfaction ratings of contractors/community people was excluded from this evaluation because the data were not available.
- The achievement of Indicator 3 of the Project Purpose or the rate of rollover funds for rural road maintenance was evaluated with the data before the year of 2014 because the data in 2014/15 were significantly affected by the disbursement rate of budget. According to the project's "Completion Report" (2016), only about 30% of the budget was actually disbursed in 2014/15 and almost all disbursed budget was spent in the year. The report stated that it was more realistic to evaluate the indicator with the data before the year of 2014.

<sup>1</sup> A technology in which labour, supported by light equipment, is used as a cost-effective method of constructing and maintaining infrastructure of a required standard. LBT is now well established as a viable option for building infrastructure in countries with low wages and high unemployment. (Source: International Labour Organization)

- Indicator 2 for the Overall Goal aimed at the increase of the percentage of road maintenance works completed by contractors within the financial year. However, the benchmark year for comparison for increase was not specified. Therefore, in this ex-post evaluation, it was assessed by whether the ratios have increased compared with the ones at the time of project completion (2014/15) and whether they have been over 85% targeted by the project. Besides, although the indicator was stated as “the percentage of the road maintenance works completed is increased within the financial year,” this was supposed to be a misdescription of “the percentage of the road maintenance works completed within the financial year is increased” judging from the Japanese translation and the related statements in the project documents. Therefore, the achievement of the indicator was evaluated based on “the percentage of the road maintenance works completed within the financial year is increased.”
- The achievements of Indicator 2 and 3 of the Overall Goal were evaluated with the data of four districts the project intervened but not with the regionwide data because the regionwide data were not available.

1 Relevance

<Consistency with the Development Policy of Tanzania at the Time of Ex-Ante Evaluation>

In line with the “Tanzanian Development Vision 2025” (1999), the “National Strategy for Growth and Reduction of Poverty II (MKUKUTA-II) 2010/11-2014/15” emphasized the importance of infrastructure development of all the prioritized sectors, and placed urban and rural road development as one of the most important tools for the national economic development. In this context, the rural road development and maintenance which directly affected agricultural activities and livelihood of rural population was highlighted as one of the major issues of national development. Therefore, the project was consistent with the development policies of Tanzania at the time of ex-ante evaluation.

<Consistency with the Development Needs of Tanzania at the Time of Ex-Ante Evaluation>

According to the “Corporate Information of the Roads Fund Board” (August 2010), 44% of all the rural roads were in poor condition that needed restoration and maintenance. Therefore, rural road improvements were needed in quantity and quality. However, the capacity of contractors to construct and maintain roads by LBT approach has been insufficient, and LGAs were required the ability to plan, supervise and control construction and maintenance works.

<Consistency with Japan’s ODA Policy at the Time of Ex-Ante Evaluation>

In the “Country Assistance Program for the United Republic of Tanzania” (June 2008), for infrastructure development aiming at growth and reduction of income poverty, it was declared that the government of Japan would contribute to the development of a road network that could be maintained and managed continuously by prioritizing assistance for boosting maintenance and management capacity through financial advice, human resources development, and institutional development. Therefore, the project was consistent with the Japan’s ODA policy for Tanzania at the time of ex-ante evaluation.

<Evaluation Result>

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

2 Effectiveness/Impact

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

The Project Purpose was partially achieved at the time of project completion. The total ratio of good and fair maintenance status of rural roads was 73.70% in Chamwino, 92.49% in Iringa, 77.35% in Kondoa, and 57.08% in Mufindi at the time of project completion in 2015, which achieved the targets set by the project except in Mufindi district (Indicator 1). The satisfaction ratings of contractors and community members for rural road maintenance works or status in the model districts of Chamwino and Iringa mostly achieved the target of 75% in 2014 and 2015. The data of disseminated districts of Konda and Mufindi were not available because the satisfaction rating survey was not conducted in these districts (Indicator 2). While the rate of rollover funds for rural road maintenance in the model districts decreased to below the target of 15%, the ones in disseminated districts were over 15% (Indicator 3).

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

The project effects have been partially continued at the time of ex-post evaluation. As for the rural road maintenance status, while the target level has been mostly sustained in Dodoma region, it has been continually below the target level after the completion of the project in Iringa region due to unusual inclement weather and rapidly expanded road network. The rate of rollover funds for rural road maintenance has largely fluctuated year by year but mostly sustained the target level in both regions.

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

The Overall Goal was partially achieved at the time of ex-post evaluation. LGAs of Dodoma and Iringa regions prepared annual rural road maintenance plans containing necessary items including annual, mid-term and long-term objectives, strategies and specific activities for annual objectives, preliminary schedule, procurement procedures, cross-cutting issues including environment, gender and HIV/AIDS, and others required by the checklist prepared by the project (Indicator 1). The ratio of the road maintenance works completed by contractors in a financial year in the two regions has increased to the level of 90% to 100% through the training for contractors and improvement of the capacity of LGAs to plan, supervise and control road maintenance works (Indicator 2). The targets of rural road maintenance status in the regions have been achieved in Dodoma region but not in Iringa region due to unusual inclement weather and rapidly expanded road network (Indicator 3).

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

There have been some positive impacts observed at the time of ex-post evaluation. According to interviews with the officials of PO-RALG and TARURA<sup>2</sup>, due to the maintenance work of the Wenda-Mgama road in Iringa district supervised and managed by the staff trained by the project, local accessibility to towns, markets and social services has been improved, agricultural production and marketing and local employment have increased, thus, the local economy has been activated. After the sensitization activities conducted by the project, women’s involvement in road maintenance has increased as maintenance workers, employees of contractors, and others in both of Dodoma and Iringa regions. No resettlement and land acquisition were caused by the maintenance works of existing roads, and no other negative impact on natural, social and economic environment has been observed.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is fair.

<sup>2</sup> Management of rural roads was transferred from PO-RALG to the Tanzania Rural and Urban Roads Agency (TARURA) in 2017. See “Institutional/Organizational Aspect” of “Sustainability” below.

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results																																											
<p>Project Purpose: Administrative services of rural road maintenance provided by LGAs are improved in the target areas, and its nationwide expansion approach is developed.</p>	<p>Indicator 1: The maintenance status (good, fair, and poor) of rural roads is improved in the model districts and disseminated districts of the respective regions.</p>	<p>Status of the Achievement: Achieved (partially continued) (Project Completion) Total ratio of good and fair maintenance status</p> <table border="1" data-bbox="762 241 1505 409"> <thead> <tr> <th>District</th> <th>Target</th> <th>2011/12</th> <th>2012/13</th> <th>2013/14</th> <th>2014/15</th> </tr> </thead> <tbody> <tr> <td>Chamwino</td> <td>80%</td> <td>74.71%</td> <td>79.04%</td> <td>81.50%</td> <td>73.70%</td> </tr> <tr> <td>Iringa</td> <td>70%</td> <td>60.16%</td> <td>66.36%</td> <td>71.29%</td> <td>92.49%</td> </tr> <tr> <td>Kondoa</td> <td>70%</td> <td>-</td> <td>-</td> <td>63.34%</td> <td>77.35%</td> </tr> <tr> <td>Mufindi</td> <td>70%</td> <td>-</td> <td>-</td> <td>63.09%</td> <td>57.08%</td> </tr> </tbody> </table> <p align="right">Source: Completion Report (March 2016)</p> <p>(Ex-post Evaluation) Refer to the Indicator 3 for Overall Goal.</p>	District	Target	2011/12	2012/13	2013/14	2014/15	Chamwino	80%	74.71%	79.04%	81.50%	73.70%	Iringa	70%	60.16%	66.36%	71.29%	92.49%	Kondoa	70%	-	-	63.34%	77.35%	Mufindi	70%	-	-	63.09%	57.08%													
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	<p>Indicator 2: The satisfaction ratings of the contractors/community people in the model districts and disseminated districts of the respective regions exceed 75/75% (Chamwino and Iringa) on average with reference to rural road maintenance works or status.</p>	<p>Status of the Achievement: Partially achieved (not verified) (Project Completion) Satisfaction ratings of the contractors/community people in the model districts</p> <table border="1" data-bbox="762 600 1536 734"> <thead> <tr> <th rowspan="2">Districts</th> <th colspan="2">1st Survey (February 2014)</th> <th colspan="2">2nd Survey (June 2015)</th> </tr> <tr> <th>Chamwino</th> <th>Iringa</th> <th>Chamwino</th> <th>Iringa</th> </tr> </thead> <tbody> <tr> <td>Contractors</td> <td>76.0%</td> <td>87.3%</td> <td>72.9%</td> <td>72.4%</td> </tr> <tr> <td>Communities</td> <td>50.1%</td> <td>77.7%</td> <td>69.3%</td> <td>83.3%</td> </tr> </tbody> </table> <p>According to the questionnaire survey conducted by the project, the target was achieved in the model districts. The survey for the disseminated districts was planned to be conducted immediately after the project completion but has not been conducted.</p> <p>(Ex-post Evaluation) No data are available because the satisfaction rating survey was not conducted.</p>	Districts	1st Survey (February 2014)		2nd Survey (June 2015)		Chamwino	Iringa	Chamwino	Iringa	Contractors	76.0%	87.3%	72.9%	72.4%	Communities	50.1%	77.7%	69.3%	83.3%																								
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	<p>Indicator 3: The percentage of the rollover funds for rural road maintenance* is decreased in the model districts and disseminated districts of the respective regions.</p> <p>* The target set by the project was below 15%.</p>	<p>Status of the Achievement: Partially achieved (partially continued) (Project Completion) The percentage of the rollover funds for rural road maintenance</p> <table border="1" data-bbox="762 1025 1505 1193"> <thead> <tr> <th>Districts</th> <th>2011/12</th> <th>2012/13</th> <th>2013/14</th> <th>2014/15</th> </tr> </thead> <tbody> <tr> <td>Chamwino</td> <td>60.59%</td> <td>1.23%</td> <td>10.03%</td> <td>1.23%</td> </tr> <tr> <td>Iringa</td> <td>12.03%</td> <td>15.10%</td> <td>4.60%</td> <td>0.00%</td> </tr> <tr> <td>Kondoa</td> <td>-</td> <td>-</td> <td>21.48%</td> <td>3.64%</td> </tr> <tr> <td>Mufindi</td> <td>-</td> <td>-</td> <td>32.13%</td> <td>0.51%</td> </tr> </tbody> </table> <p>While the rates in model districts decreased to below 15%, the ones in disseminated districts were over 15%.</p> <p>(Ex-post Evaluation) The rate of rollover funds after the project</p> <table border="1" data-bbox="762 1317 1528 1417"> <thead> <tr> <th>Region</th> <th>2015/16</th> <th>2016/17</th> <th>2017/18</th> <th>2018/19</th> <th>2019/20</th> </tr> </thead> <tbody> <tr> <td>Dodoma</td> <td>0%</td> <td>1%</td> <td>0%</td> <td>13%</td> <td>47%</td> </tr> <tr> <td>Iringa</td> <td>-</td> <td>-</td> <td>8%</td> <td>14%</td> <td>7%</td> </tr> </tbody> </table> <p>The rate of rollover funds has varied from year to year because of the low disbursement rate of budget, delayed payments to contractors, termination of contracts due to poor performance of contractors, suspension of maintenance works due to inclement weather, and others.</p>	Districts	2011/12	2012/13	2013/14	2014/15	Chamwino	60.59%	1.23%	10.03%	1.23%	Iringa	12.03%	15.10%	4.60%	0.00%	Kondoa	-	-	21.48%	3.64%	Mufindi	-	-	32.13%	0.51%	Region	2015/16	2016/17	2017/18	2018/19	2019/20	Dodoma	0%	1%	0%	13%	47%	Iringa	-	-	8%	14%	7%
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<p>Overall Goal: The rural road maintenance procedures and services of LGAs in Dodoma and Iringa regions are improved.</p>	<p>Indicator 1: Annual Rural Road Maintenance Plans prepared by LGAs of the respective regions contain necessary items based on the checklist.</p> <p>Indicator 2: The percentage of the road maintenance works completed by contractors (including defect liability period) for all the maintenance works in the Plan is increased within the financial year in the respective regions.</p>	<p>(Ex-post Evaluation) Achieved According to the questionnaire to and interview with TARURA and PO-RALG, the annual rural road maintenance plans prepared by LGAs contain necessary items including annual, mid-term and long-term objectives, strategies and specific activities for annual objectives, preliminary schedule, procurement procedures, cross-cutting issues including environment, gender and HIV/AIDS, and others required by the checklist.</p> <p>(Ex-post Evaluation) Partially achieved Road maintenance works completed in a year (2014/15 was the year the project completed)</p> <table border="1" data-bbox="762 1809 1536 2000"> <thead> <tr> <th>District</th> <th>2014/15</th> <th>2015/16</th> <th>2016/17</th> <th>2017/18</th> <th>2018/19</th> <th>2019/20</th> </tr> </thead> <tbody> <tr> <td>Chamwino</td> <td>93%</td> <td>17%</td> <td>62%</td> <td>95%</td> <td>95%</td> <td>51%</td> </tr> <tr> <td>Kondoa</td> <td>78%</td> <td>100%</td> <td>0%</td> <td>100%</td> <td>90%</td> <td>0%</td> </tr> <tr> <td>Iringa</td> <td>71%</td> <td>100%</td> <td>100%</td> <td>98%</td> <td>100%</td> <td>80%</td> </tr> <tr> <td>Mufindi</td> <td>70%</td> <td>100%</td> <td>100%</td> <td>90%</td> <td>94%</td> <td>90%</td> </tr> </tbody> </table> <p>While the maintenance needs have increased along with the increase of the total length of rural roads, the ratio of maintenance works completed in a year has stayed at a high level. The ratio has been fluctuating in Chamwino and no maintenance work was implemented in 2016/17 and 2019/20 in Kondoa because some or all of local contractors could not meet the requirements of tenders in</p>	District	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	Chamwino	93%	17%	62%	95%	95%	51%	Kondoa	78%	100%	0%	100%	90%	0%	Iringa	71%	100%	100%	98%	100%	80%	Mufindi	70%	100%	100%	90%	94%	90%								
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Indicator 3: The maintenance status (Good, Fair, and Poor) of rural roads is improved in the respective regions.	those years.					
	(Ex-post Evaluation) Partially achieved					
	Total ratio of good and fair maintenance status (average in two districts)					
	District	Target	2015/16	2016/17	2017/18	2018/19
Chamwino & Kondoa	80/70%	80%	82%	71%	66%	19%
Iringa & Mufindi	70%	35%	40%	44%	39%	42%
Source: President's Office and PO-RALG						
The low rate in Dodoma region in 2019/20 was due to the damages on roads due to unusual heavy rainfall. The low rate in Iringa region was mainly due to inclement weather such as heavy rainfall and rapidly expanded road network.						

Source: PO-RALG and TARURA

### 3 Efficiency

Both of the project cost and period were within the plan (ratio against the plan was 96% and 100% respectively). The outputs were produced as originally planned by the end of the project period. Therefore, the efficiency of the project is high.

### 4 Sustainability

#### <Policy Aspect>

The yearly updated "Annual Performance Agreement" between TARURA and PO-RALG has stipulated since the year of 2017/18 that 20% of roadworks contracts should be LBT contracts in the regions and districts where LBT contractors operate.

#### <Institutional/Organizational Aspect>

The Tanzania Rural and Urban Roads Agency (TARURA) was officially inaugurated in July 2017, and management of assets and finance of rural and urban roads was transferred from LGAs under PO-RALG to TARURA. One of the purposes of this restructuring was to kick out corruption prevailed in tender processes and to improve transparency in all contracts for road projects. Thus, according to interviews with the officials of PO-RALG and TARURA, management of assets and finance of rural roads has been significantly improved. On the other hand, most of TARURA district offices are facing shortage of technical staff. There are, for example, four engineers and no technician in the Kondoa district office, three engineers and one technician in the Iringa district office, and these engineering staffs are on contract basis but not fulltime employees of TARURA.

#### <Technical Aspect>

Managerial and technical knowledge and knowhow learned in the project have been transferred to TARURA by the staff of RAS involved in the project and moved to TARURA. The checklists, inventory strip maps, quality assurance forms, and other tools developed by the project have been continuously used by the staff of TARURA. The "Rural Road Maintenance Operational Guidelines" and "Instruction Manual for the Monitoring System" developed by the project are currently under review to adapt to the new systems of TARURA. According to interviews with the officials of PO-RALG and TARURA, capacities of TARURA's staff are sufficiently high in the areas of planning, procurement, supervising, monitoring of road construction and maintenance.

#### <Financial Aspect>

TARURA has been financially stable keeping revenue and expenditure in surplus since its establishment in 2017. Funds for TARURA come from the Road Fund, government's consolidated fund, and development partners including the World Bank, European Union (EU), United States Agency for International Development (USAID), Department for International Development (DFID) of the United Kingdom, and others.

Financial Status of TARURA		Unit: 100 million TSH*		
	2017/18	2018/19	2019/20	
Revenue	412,933.47	382,008.48	409,387.25	
Expenditure	285,318.81	296,441.76	250,733.40	
Balance	127,614.66	85,566.72	158,653.85	

\* TSH: Tanzanian Shilling

#### <Evaluation Result>

In light of the above, slight problems have been observed in terms of the institutional/organizational aspect of the implementing agency. Therefore, the sustainability of the effectiveness through the project is fair.

### 5 Summary of the Evaluation

The Project Purpose was partially achieved by improving the maintenance status of rural roads in the model districts but not fully in disseminated districts. The Overall Goal was partially achieved by improving the management capacity of the central and local agencies concerned and the roadwork implementation capacities of contractors although the rural road maintenance status in Iringa region has not achieved the target. As for sustainability, technical and financial sustainability has been high while limited human resources of TARURA has remained as an issue. Considering all of the above points, this project is evaluated to be satisfactory.

## III. Recommendations & Lessons Learned

#### Recommendations for Implementing Agency:

- It is recommended that TARURA to disseminate the management and technical tools developed by the project to other districts other than the model and disseminated districts of the project, and assist them to make the tools in practical use in order to improve the maintenance status of rural roads regionwide in Dodoma and Iringa regions. Introducing the tools in the projects assisted by the development partners could be one possible and feasible approach.
- It is recommended that TARURA keeps requesting the employment permit to the government for engineers and technicians working on contract basis and takes whatever possible actions to increase the number of technical staff.

#### Lessons Learned for JICA:

- In the project, the rate of rollover funds for rural road maintenance was defined as an indicator for the performance of road maintenance works. However, the rate of rollover funds has largely fluctuated between 0% and 60% due to the fluctuation of actual disbursement of the budget against the approved amount of budget. The rate in a year, for example, decreased to 0% because only about 30% of the budget was actually disbursed in that year and almost all disbursed budget was spent in the year. Therefore, it is not recommendable to use the rate of rollover funds or the rate of budget consumption as an indicator of performance of operation in countries where actual



Nkwenda - Nhinhi road in Dodoma Region  
one of the pilot projects of the project



Wenda -Mgama road in Iringa Region  
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