

## Chapter 3: Project Evaluation

## Chapter 3 Project Evaluation

### 3-1 Conditions for project implementation

#### (1) Prerequisites for project implementation

The preconditions for implementing this plan are shown below.

- The road right of way (ROW, width 60 m with one 40 m section) required for this project must be secured before the project implementation procedure starts.
- Land for construction camp site, land for plant installation, land for embankment and permission for mining must be provided.
- Relocation/removal of obstacles within the road construction area must be completed before the bidding procedure starts.
- Customs clearance procedures and tax exemption measures for procured equipment and materials must be responded to promptly to allow for smooth implementation of construction.
- In this project, it is expected that the rehabilitation work will be carried out to secure the traffic flow of the existing road. Therefore, it is recommended that Tanzania authorities promote traffic safety and educate road users and local residents in order to prevent accidents during the work.
- In order to extend the useful life of roads and structures after the completion of construction under this plan, daily maintenance and removal of obstacles, in addition to cleaning, etc., should be carried out and should start immediately after the completion of construction, and regular inspections should be carried out to ensure that roads and structures are not damaged. If damage is found, appropriate repairs should be promptly carried out.
- Therefore, the budget, personnel and materials and equipment required for maintenance must be secured and maintenance must be carried out continuously.

#### 3-2 Counterpart Inputs (Burdens) Necessary to Achieve the Overall Project Plan

The following table shows the estimated costs to be borne by the Tanzania side for the implementation of this project. For details, please refer to the relevant chapters.

① Cost of registering construction company	:	Million Tshs	138	(approximately 6.6 million yen)
② Cost for issuing A/P and opening B/A	:	Million Tshs	42	(approximately 2.0 million yen)
③ Cost for relocation of existing structures	:	Million Tshs	4,599	(approximately 218.8 million yen)
④ ARAP cost	:	Million Tshs	756	(approximately 36.0 million yen)
Total	:	Million Tshs	5,535	(approximately 263.4 million yen)

#### 3-3 External conditions for achieving the overall plan of the project

The external conditions that need to be met for project implementation are shown below.

- ① No major changes will be made to the city plan and related plans of Dodoma City.
- ② The control of overloaded vehicles will be continued and strengthened.
- ③ There will be no significant changes in the SGR plan and related plans that would have a major impact on this plan.
- ④ In case of widening to four lanes in the future, the additional lanes will be in alignment with the

two-lane road in this plan.

- ⑤ In case of utilizing the central reservation envisioned in this project for BRT, the BRT will be in alignment with the planned road.
- ⑥ Understanding and cooperation can be obtained from police and road users to raise awareness about traffic safety.

### **3-4 Project evaluation**

#### **3-4-1 Relevance**

The implementation of this project will contribute to the urban development of Dodoma City and to improving the convenience of residents living in the target area, as well as improving the convenience of the east-west and north-south Africa highway network where the target road is located. Therefore, it is significant to implement the project with the grant aid of Japan. In addition, the rapid improvement of the target section is expected to significantly reduce the passage of large vehicles in the city centre. It should be noted that in order to make these achievements function in the long term, maintenance after the completion of the facility can be sufficiently dealt with by the implementing agency in Tanzania considering their past achievements and future efforts.

- ① Contribute to the improvement and strengthening of the trunk road network in accordance with the national development goals and policies of Tanzania.
- ② This plan contributes to strengthening the trunk road network and is effective for social and economic development in Tanzania and inland countries.
- ③ The planned road will improve the social and living environment in the city centre by allowing large vehicles to bypass the centre of Dodoma City.
- ④ It is expected that the route on the outer edge of the city centre will bring great benefits to the transport function of Dodoma city.
- ⑤ The road to be constructed can be operated and maintained by Tanzania's own funds, human resources and technology, and does not require excessively advanced technology.
- ⑥ There is almost no negative impact on the environment and society.
- ⑦ The grant aid system of Japan enables the project to be implemented without any particular difficulties.

#### **3-4-2 Effectiveness of project implementation**

By implementing this project, the road conditions in the target section will be improved and safe and smooth flow of traffic will be secured. Therefore, it is expected that there will be a great benefit to the residents of Dodoma City and the users who pass through the distribution trunk. The expected effects of implementing this matter are shown below.

## (1) Quantitative effect

Table 85: Quantitative effects

Index name	Base value (Actual value in 2019)	Target value (2026) [3 years after project completion]
Number of large vehicles in the city center (units/day)	14,459 Nos.	8,675 Nos. (-40%)
Number of passengers (person/year)	11,200,000	21,100,000
Cargo volume (t/year)	4,210,000	7,920,000

Note: The quantity study method for each of the above items is as follows.

Source: Survey team

- > Number of large vehicles = 2109 and 2026 estimates based on the results of the traffic volume survey for the city center route, with and without the installation of a detour.
- > Number of passengers = Based on the traffic volume survey for Section 2-2, with a number of passengers for Sedan=2 people, tricycles=2, bus=20, motorcycle=1, and estimated the growth rate at 6.5%.
- > Cargo volume = Based on the traffic volume survey and the axle weight survey for Section 2-2, and set the loading capacity by vehicle type and estimated the growth rate at 6.5%.
- > Large vehicle=Type 5~9 of table 18 of page 1-21.

## (2) Qualitative effect

- ① Improvement of smooth traffic flow in Dodoma city
- ② Improvement of living environment by reducing noise, vibration, etc. in Dodoma city by detouring large vehicle traffic.
- ③ Contribute to the smooth distribution and economic development of Tanzania by reducing transportation costs by facilitating intercity transportation.
- ④ Contribution to reducing traffic accidents by improving the safety and smoothness of night traffic by installing street lights and reflective studs.



# APPENDICES

1.	Member List of the Survey Team.....	A-2
2.	Survey Schedule .....	A-3
3.	List of Parties Concerned in the Recipient Country.....	A-5
4.	Minutes of Discussion (M/D) for 1st and 2nd site survey.....	A-7
5.	Technical Note for the Project.....	A-80
6.	Meeting attendants list for 5th/Mar./2020 at TANRAODS Dodoma office .....	A-82
7.	Environmental Monitoring Form and Environmental Checklist .....	A-83
8.	Other Documents (Outline Design Drawings) .....	A-92

## Appendix 1: Member List of the Survey Team

### (1) 1st Field Survey

No.	Name	Work Responsibility	Affiliation
1	Kensiro TANAKA	Team Leader	JICA Infrastructure and Peacebuilding Department, Transportation and Telecommunications Group, Team 1
2	Akira OZAWA	Planning and management	Ditto
3	Hideaki MORITA	Chief consultant/Road planning 1	ISEC
4	Masateru TOCHINAKA	Deputy chief/Road planning 2	KEI
5	Hisasi MUTO	Road Planner	ISEC
6	Sueo HIROSE	Road Designer 1	ISEC
7	Nicolas Brooker-Jones	Road Designer 2D/3D Modeling	ISEC
8	Kota AOYAMA	Road Designer 2D/3D Modeling	ISEC
9	Kurato ENDO	Transport Planner	MEX
10	Koji KOGA	Construction Planner/Cost Estimator	ISEC
11	Satosi KUSAKA	Natural Condition Surveyor	KEI
12	Jin lin	Social & Environmental Expert	ISEC

Note: ISEC= Ingerosec corporation, KEI= Katahira & Engineers International, MEX=Metropolitan Expressway Company Limited

### (2) 1.5th Field Survey

No.	Name	Work Responsibility	Affiliation
1	Hideaki MORITA	Chief consultant/Road planning 1	ISEC
2	Koji KOGA	Construction Planner/Cost Estimator	ISEC
3	Jin lin	Social & Environmental Expert	ISEC

### (3) 2nd Field Survey (by Web Conference)

No.	Name	Work Responsibility	Affiliation
1	Satoru MATSUYAMA	Team Leader	JICA Tanzania office
2	Masahiro SUZUKI	Planning and management	JICA Infrastructure and Peacebuilding Department, Transportation and Telecommunications Group, Team 1
3	Masato ASHINO	Planning and management	Ditto
4	Hideaki MORITA	Chief consultant/Road planning 1	ISEC
5	Masateru TOCHINAKA	Deputy chief/Road planning 2	KEI
6	Sueo HIROSE	Road Designer 1	ISEC
7	Koji KOGA	Construction Planner/Cost Estimator	ISEC
8	Kota AOYAMA	Road Designer 2D/3D Modeling	ISEC

## Appendix 2: Survey Schedule

### (1) 1st Field Survey (2019/11/10 – 12/22)

日程	2019年月日	総括	計画管理	業務主任者／道路・道路付帯設備計画1	副業務主任者／道路・道路付帯設備計画2	道路・道路付帯設備3 次元計画	道路・道路付帯設備設計1	道路・道路付帯設備設計2／3次元モデリング	(自社)道路・道路付帯設備設計2／3次元モデリング	交通量調査・需要予測	調査事項調査／施工計画／概算	自然条件調査	環境社会配慮／社会状況調査
		JICA MR TANAKA	JICA MR OZAWA	森田 秀明	棚中 正徳	武藤 寿	廣瀬 来雄	ブルック・ジョーンズ	青山 幸多	速藤 龍人	古賀 功次	日下 聡	金 琳
1	10	日		日本発一現地着	日本発一現地着	日本発一現地着	日本発一現地着	日本発一現地着	日本発一現地着				
2	11	月		11:00JICA到着 ～15:40ドマ移動16:40	11:00JICA到着 ～15:40ドマ移動16:40	11:00JICA到着 ～15:40ドマ移動16:40	11:00JICA到着 ～15:40ドマ移動16:40	11:00JICA到着 ～15:40ドマ移動16:40	11:00JICA到着 ～15:40ドマ移動16:40				
3	12	火		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
4	13	水		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
5	14	木		TRDへのROW確認 MOB後継車との協議	TRDへのROW確認 MOB後継車との協議	TRDへのROW確認 MOB後継車との協議	TRDへのROW確認 MOB後継車との協議	TRDへのROW確認 MOB後継車との協議	TRDへのROW確認 MOB後継車との協議				
6	15	金		TRDへのROW確認 ROWの現地再視、確認1	TRDへのROW確認 ROWの現地再視、確認1	TRDへのROW確認 ROWの現地再視、確認1	TRDへのROW確認 ROWの現地再視、確認1	TRDへのROW確認 ROWの現地再視、確認1	TRDへのROW確認 ROWの現地再視、確認1				
7	16	土		ROWの現地再視、確認2	ROWの現地再視、確認2	ROWの現地再視、確認2	ROWの現地再視、確認2	ROWの現地再視、確認2	ROWの現地再視、確認2				
8	17	日		日本発一現地着	日本発一現地着	日本発一現地着	日本発一現地着	日本発一現地着	日本発一現地着				
9	18	月		大塚橋、JICA ～15:40ドマ移動16:40	大塚橋、JICA ～15:40ドマ移動16:40	大塚橋、JICA ～15:40ドマ移動16:40	大塚橋、JICA ～15:40ドマ移動16:40	大塚橋、JICA ～15:40ドマ移動16:40	大塚橋、JICA ～15:40ドマ移動16:40				
10	19	火		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
11	20	水		10:15ドマ～ダフル11:15 15:00TRD～ダフル16:00	10:15ドマ～ダフル11:15 15:00TRD～ダフル16:00	10:15ドマ～ダフル11:15 15:00TRD～ダフル16:00	10:15ドマ～ダフル11:15 15:00TRD～ダフル16:00	10:15ドマ～ダフル11:15 15:00TRD～ダフル16:00	10:15ドマ～ダフル11:15 15:00TRD～ダフル16:00				
12	21	木		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
13	22	金		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
14	23	土		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
15	24	日		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
16	25	月		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
17	26	火		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
18	27	水		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
19	28	木		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
20	29	金		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
21	30	土		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
22	1	日		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
23	2	月		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
24	3	火		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
25	4	水		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
26	5	木		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
27	6	金		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
28	7	土		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
29	8	日		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
30	9	月		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
31	10	火		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
32	11	水		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
33	12	木		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
34	13	金		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
35	14	土		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
36	15	日		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
37	16	月		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
38	17	火		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
39	18	水		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
40	19	木		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
41	20	金		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
42	21	土		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				
43	22	日		現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1	現場踏査1				

### (2) 1.5th Field Survey

(2020/2/23 – 3/12)

日程	2020年月日	業務主任者／道路・道路付帯設備計画1	調査事項調査／施工計画／概算	環境社会配慮／社会状況調査
		森田 秀明	古賀 功次	金 琳
1	22	土		
2	23	日		
3	24	月		
4	25	火		
5	26	水		
6	27	木		
7	28	金		
8	29	土		
9	1	日		
10	2	月		
11	3	火		
12	4	水		
13	5	木		
14	6	金		
15	7	土		
16	8	日		
17	9	月		
18	10	火		
19	11	水		
20	12	木		
21	13	金		

(3) 2nd field survey (conducted as a web conference, 2021/1/19 - 2/5)

January 19, 2021 (Tuesday)

10:00am: Explanation of the contents of the draft preparatory survey report (consultant)

: Explanation and discussion of the draft MD (JICA HQ staff)

: Explanation of tax exemption issue (MoF of Japan)

Attendance:

Japanese side: JICA headquarter and Tanzania office, Ministry of Foreign Affairs, Embassy of Japan in Tanzania, Consultants survey team

Tanzania side: TANROADS: Representatives from Headquarters (3), Dodoma Branch Office (1)

Jan. 22 (Fri.)

9:00am : Explanation and discussion of updated draft MD (JICA Tanzania office, TANROADS)  
+ supplementary confirmation by e-mail, etc.

Jan. 27 (Wed.)

Explanation and discussion of updated draft MD (MoWTC, MoFP, TANROADS, JICA Tanzania office).

Feb. 5 (Fri.)

Signing of MD (JICA local office, TANROADS) + supplementary confirmation by e-mail, etc.

Note: Time shown is Tanzanian time (Japan time -6 hours).

### Appendix 3: List of Parties Concerned in the Recipient Country

Affiliation and position	Name
<b>JICA Tanzania office</b>	
Resident Representative	Naofumi YAMAMURA
Deputy Resident Representative	Satoru MATSUYAMA
Representative	Hayagazu YOSHIDA
Representative	Hideki YAOI
<b>Ministry of Works, Transport and Communications (MoWTC)</b>	
Director of Roads	Eng. Rogatus Hussein Mativila
Asst. Director Regional Roads	Eng. John F. Ngowi
Asst. Director Trunk Roads	Eng. Light K. Chobya
Asst. Director Urban Roads	Eng. Anthony Masha
Principal Engineer Urban Roads	Eng. Alois M. Matei
Director of Safety & Environment	Eng. Julius J. Chambo
Head of Government Communication Unit	Segonlena Francis
<b>Tanzania National Roads Agency (TANROADS) Dodoma</b>	
Regional Manager	Eng. Leonard M.E Chimagu
Head of Planning Unit	Eng. Cyprian H. K. Lubida
Head of Procurement Unit	Eng. Adelphina Mhagama
Head of Accounts and Administration	Julius G. Kadala
Engineer of Planning Unit	Eng. Magesa Reuben
Planning Engineer	Eng. Coleman
<b>Tanzania National Roads Agency (TANROADS) Dar Es Salaam</b>	
CEO	Eng. Patric Mufgare
Director of Operation	Eng. Crispianus Ako
Director of Planning	Eng. Bencolias Tinkaligaile
Project Engineer	Eng. Lema
Director of Environment and Safety	Ms. Zafarani Madayi
Environmentalist	Mr. Julius
Environmentalist	Mr. Mwangunga
<b>Tanzania Rural and Urban Roads Agency (TARURA)</b>	
Chief Executive Officer	Eng. Victor H. Seff
Manager for Planning	Eng. Mkwata
Manager for Urban Roads	Eng. Deonatus Manae
<b>Dodoma Urban Water Supply and Sanitation Authority (DUWASA)</b>	
Managing Director	Eng. David T. Pallangyo
Technical Manager	Eng. Kashilimu A. Mayunga
<b>Tanzania Railway Company (TRC)</b>	
Director	Eng. Faustin M. Kataraia
<b>Tanzania Railway Corporation, Standard Gauge Rail (SGR) Project</b>	
Project Manager (Korea Railroad – JV)	P. Eng. Jong Hoon CHO
Deputy Project Manager (Korea Railroad – JV / KORAIL)	Eng. Chedi Masambaji
Design Manager (Yapi Merkezi)	Eng. Bora Kurt
Design Consultant (Sener)	Eng. Jorge Alcalde
<b>Tanzania Meteorological Agency (TMA)</b>	

Manager	Mr. Izdor Kirenga
<b><u>Dodoma City Council (DCC)</u></b>	
Project Coordinator	Eng. Emanuel R. Manyanga
Town Planning Officer	Mr. William Alfayo
Community Development Officer	Ms. Tumani Godfrey
Town Planner	Ms. Aisha Masanja
Environmental management officer	Ms. Jane R. Meda
<b><u>Dodoma City Stormwater Planning Survey</u></b>	
Director	Eng. Soon Seok Park
Engineer	Eng. Sangmin Lee
GIS Analyst	Eng. Scholastica Louis Mrumah
<b><u>Tanzania Electric Supply Company LTD (TANESCO)</u></b>	
Electrical Engineer	Eng. Tumaini Z. Nyari
Electrical Technician	Mr. Abel
<b><u>National Bureau of Statistics Head Office Dodoma</u></b>	
Library Office	Issac Magabiro
<b><u>National Environment Management Council (NEMC)</u></b>	
Ag. Director	Dr. Menan H. Jangu

#### **Appendix 4: Minutes of Discussions (M/D)**

##### **(1) Minutes of Discussion (M/D) for 1st Field Survey**

#### **Minutes of Discussions on the Preparatory Survey for the Project for Construction of Dodoma City Inner Ring Road**

In response to the request from the Government of the United Republic of Tanzania (hereinafter referred to as “Tanzania”), the Government of Japan through Japan International Cooperation Agency (hereinafter referred to as “JICA”) dispatched the Preparatory Survey Team for the Outline Design (hereinafter referred to as “the Team”) of the Project for Construction of Dodoma City Inner Ring Road (hereinafter referred to as “the Project”) to Tanzania. The Team is headed by Mr. Kenshiro Tanaka, Acting Director, Team 1 Transportation Group, Infrastructure and Peacebuilding Department, JICA, who is scheduled to stay in the country from 17<sup>th</sup> to 22<sup>nd</sup> November 2019. The component of the Project shall involve construction of a new road with 2 lanes between Imagi roundabout and Regional Commissioner’s office roundabout and Widening of an existing road between Bahi roundabout and Imagi roundabout from 2-lane to 4-lane.

The Team held a series of discussions with the officials of the Government of Tanzania and conducted a field survey on the Project. In the course of the discussions, both sides have confirmed the main items described in the Attachment 1 and Annex 1 - 5. The Team will proceed to further work and prepare the Preparatory Survey Report.

Dar es Salaam, 22<sup>nd</sup> November, 2019

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Mr. Kenshiro Tanaka  
Chief  
Preparatory Survey Team  
Japan International Cooperation Agency

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Eng. Patrick A.L Mfugale  
Chief Executive  
Tanzania National Roads Agency  
United Republic of Tanzania

(Witness)

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Mr. Elius Asangalwisye Mwakalinga  
Permanent Secretary  
Ministry of Works, Transport,  
and Communication  
United Republic of Tanzania

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Mr. Doto M. James  
Permanent Secretary  
Ministry of Finance and Planning  
United Republic of Tanzania

Note: The TANROADS signature for this M/D has been completed.

## ATTACHMENT 1

### 1. Objective of the Project

The objective of the Project is to secure smooth traffic flow and better living environment in Dodoma City by constructing a new road with 2 lanes and widening an existing road from 2-lane to 4-lane, which are shown in Annex 1, hereby contributing to enhanced infrastructure in the capital city of the country.

### 2. Title of the Preparatory Survey

Both sides confirmed the title of the Preparatory Survey as “the Preparatory Survey for the Project for Construction of Dodoma City Inner Ring Road”.

### 3. Project site

Both sides confirmed that the sites of the Project are located on the Inner Ring Road in Dodoma City, which is shown in Annex 1.

### 4. Responsible authority for the Project

Both sides confirmed the authorities responsible for the Project are as follows:

- 4-1. The responsible ministry is the Ministry of Works, Transport and Communication. The Ministry of Works, Transport and Communication shall be responsible for monitoring and evaluation of implementation of works on behalf of the Government of Tanzania.
- 4-2. The Tanzania National Roads Agency (hereinafter referred to as “TANROADS”) will be the executing agency for the Project (hereinafter referred to as “the Executing Agency”). The Executing Agency shall manage implementation of the Project including coordination of all relevant authorities to ensure smooth implementation of the Project and achieve completion within agreed time, quality and costs. The organization charts are shown in Annex 2.

### 5. Scope of the Survey of the Project

- 5-1. Originally, the Government of Tanzania requested the Government of Japan to support financing of construction of Dodoma Inner Ring Roads comprising the Emmaus – Wajenzi – Imagi round about – Regional Commissioner’s Office – UDOM Round about approximately km 15.
- 5-2. During the discussions, JICA Team agreed to proceed with the following items as a scope of the survey for the Project, in this phase. The Tanzanian side understood the explanation and agreed the scope of the survey as follows, which were parts of the original request by the Government of Tanzania.:
  - Design and supervision of the following road section
  - Widening of an existing road between Bahi roundabout and Imagi roundabout from 2-lane to 4-lane (2.9km)



- Construction of a new road with 2 lanes between Imagi roundabout and Regional Commissioner's office roundabout (3.4km).

5-3. JICA will assess the feasibility of the above items through the survey and will report the findings to the Government of Japan. The final scope of the Project will be decided by the Government of Japan.

## 6. Procedures and Basic Principles of Japanese Grant

6-1. The Tanzanian side agreed that the procedures and basic principles of Japanese Grant as described in Annex 3 shall be applied to the Project.

As for the monitoring of the implementation of the Project, JICA requires Tanzanian side to submit the Project Monitoring Report, the form of which is attached as Annex 4.

6-2. The Tanzanian side agreed to take the necessary measures, as described in Annex 5, for smooth implementation of the Project. The contents of the Annex 5 will be elaborated and refined during the Preparatory Survey and be agreed in the mission dispatched for explanation of the Draft Preparatory Survey Report.

The contents of Annex 5 will be updated as the Preparatory Survey progresses, and eventually, will be used as an attachment to the Grant Agreement.

## 7. Schedule of the Survey

7-1. The Team will proceed with further survey in Tanzania until 21<sup>st</sup> December 2019.

7-2. JICA will prepare a draft Preparatory Survey Report in English and dispatch a mission to Tanzania in order to explain its contents around end of June 2020.

7-3. If the contents of the draft Preparatory Survey Report is accepted and the undertakings for the Project are fully agreed by the Tanzanian side, JICA will finalize the Preparatory Survey Report and send it to Tanzania around September 2020.

7-4. The above schedule is tentative and subject to change.

## 8. Environmental and Social Considerations

8-1. The Tanzanian side confirmed to give due considerations on environmental and social aspects before, during implementation and after completion of the Project, in accordance with the JICA Guidelines for Environmental and Social Considerations (April, 2010) on JICA's URL below.  
[https://www.jica.go.jp/english/our\\_work/social\\_environmental/guideline/pdf/guideline100326.pdf](https://www.jica.go.jp/english/our_work/social_environmental/guideline/pdf/guideline100326.pdf)

8-2. The Project is categorized as "B" from the following considerations:

The Project is not considered to be a large-scale road, is not located in a sensitive area, and has none of the sensitive characteristics under the JICA Guidelines for Environmental and Social Considerations (April, 2010), and it is not likely to have a significant adverse impact on the environment.

The Tanzanian side confirmed to conduct the necessary procedures concerning the environmental assessment (including stakeholder's meetings, Environmental Impact Assessment (EIA) /Initial Environmental Examination (IEE) and information disclosure, etc.) and make EIA/IEE report of the Project. The EIA/IEE approval shall be received from the responsible authorities and submitted to JICA by the end of February 2020.

- 8-3. For the Project that will result in involuntary resettlement, the Tanzanian side confirmed to prepare a Resettlement Action Plan (RAP)/Abbreviated Resettlement Action Plan (ARAP) and make it available to the public. In addition, the Tanzanian side confirmed to provide the affected people with sufficient compensation and/or support in accordance with RAP/ARAP, which is consistent with JICA Guidelines for Environmental and Social Considerations (April, 2010), in a timely manner.

## 9. Safety Measures

To avoid accidents on sites during the implementation of the Project, the Tanzanian side agreed to cause the consultant and the contractor to enforce safety measures such as setting safety assurance to the site, providing information for security control to public, and deploying adequate security personnel, based on "The Guidance for the Management of Safety for Construction Works in Japanese ODA Projects" which has been published on JICA's URL below.

[http://www.jica.go.jp/activities/schemes/oda\\_safety/ku57pq00001nz4eu-att/guidance\\_spa.pdf](http://www.jica.go.jp/activities/schemes/oda_safety/ku57pq00001nz4eu-att/guidance_spa.pdf)

The Team recommended to the Tanzanian side to explain to the residents about the Project (necessity and significance, construction period, sites, impact etc.), so that consensus support can be obtained from them for the smooth implementation of the Project.

## 10. Other Relevant Issues

- 10-1. The Team explained a method of the preparatory survey based on an inception report submitted by the Team. The Tanzanian side understood the contents and accepted the method.

- 10-2. The Tanzanian side shall, at its own expense, provide the Team with the following items:

- 1) Necessary data, information and coordination with relevant agencies for the preparatory survey,
- 2) Answers to the questionnaire submitted by the Team,
- 3) Assignment of Counterpart personnel,
- 4) Security information in a timely manner,
- 5) Permissions of conducting field activities, such as topographic survey, geotechnical investigations, environmental and social considerations, a traffic volume survey, etc., by local consulting firms entrusted by the Team and issuing introduction letter for members of the said firms, and
- 6) Sourcing traffic safety through the field survey in cooperation with relevant authorities

(e.g. traffic police, etc.)

#### 10-3. Misconduct

The team explained and the Tanzanian side understood the preventive measures about fraudulent practices which would be stipulated in JICA's Grant Agreement.

#### 10-4. Issuance of Work Permit and VISA

The Tanzanian side agreed that TANROADS shall facilitate with concerned agencies including the Ministry of Works, Transport and Communication and assist Japanese nationals/others from third countries who are involved in the Project to obtain VISA and work permit smoothly after submission of proper applications so that they can enter and stay in Tanzania without any hindrance at the survey and the implementation stage of the Project.

#### 10-5. Maintenance of the Roads

The Team explained the importance of maintenance of the roads constructed and improved by the Project considering the proper asset management impacts greatly on life-span of the facilities and its maintenance cost. The Tanzanian side shall secure enough staff and budget necessary for appropriate maintenance of the roads.

[Annex 1] Project Site

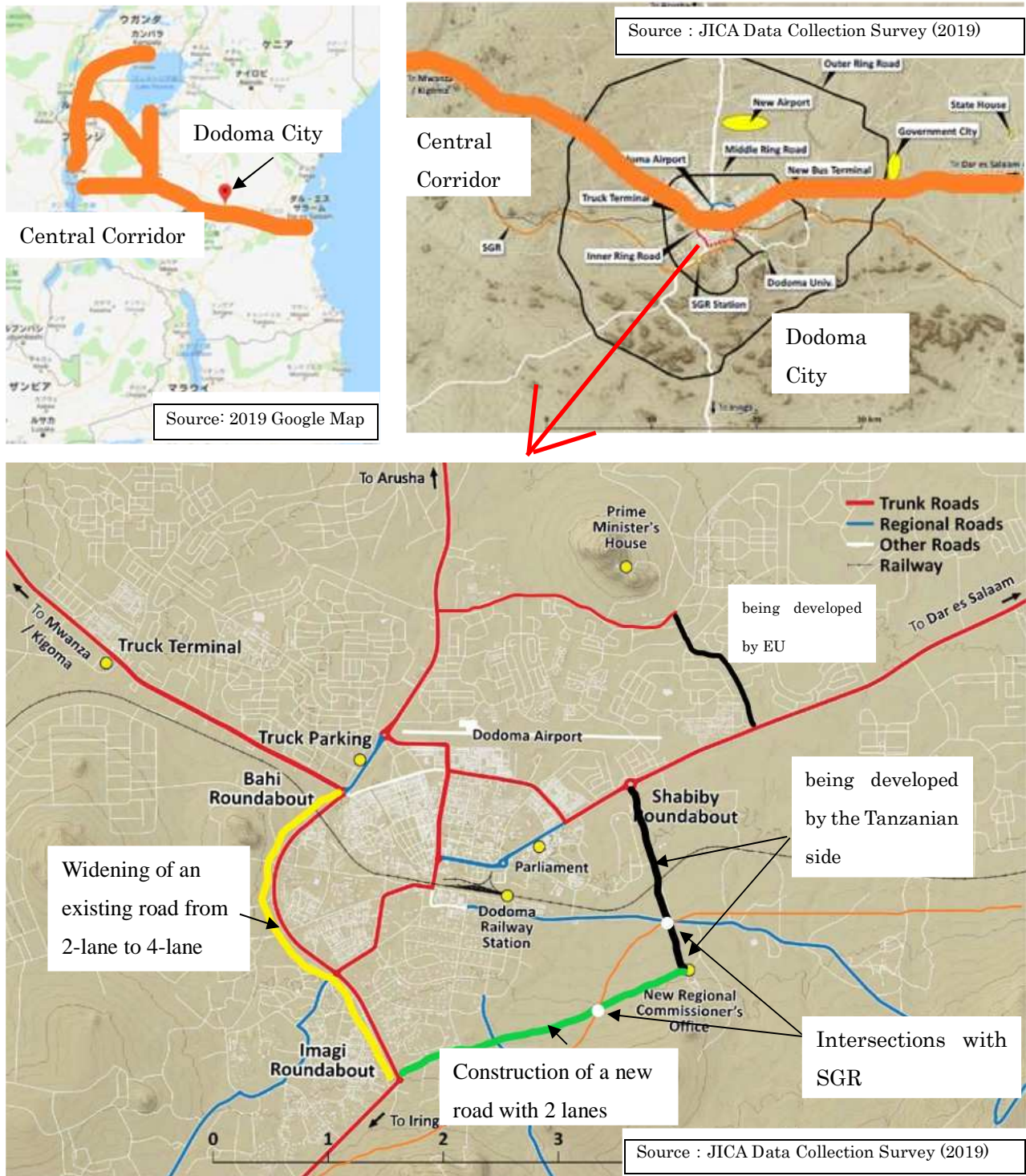
[Annex 2] Organization Chart

[Annex 3] Japanese Grant (including Attachment 1, 2)

[Annex 4] Project Monitoring Report (template)

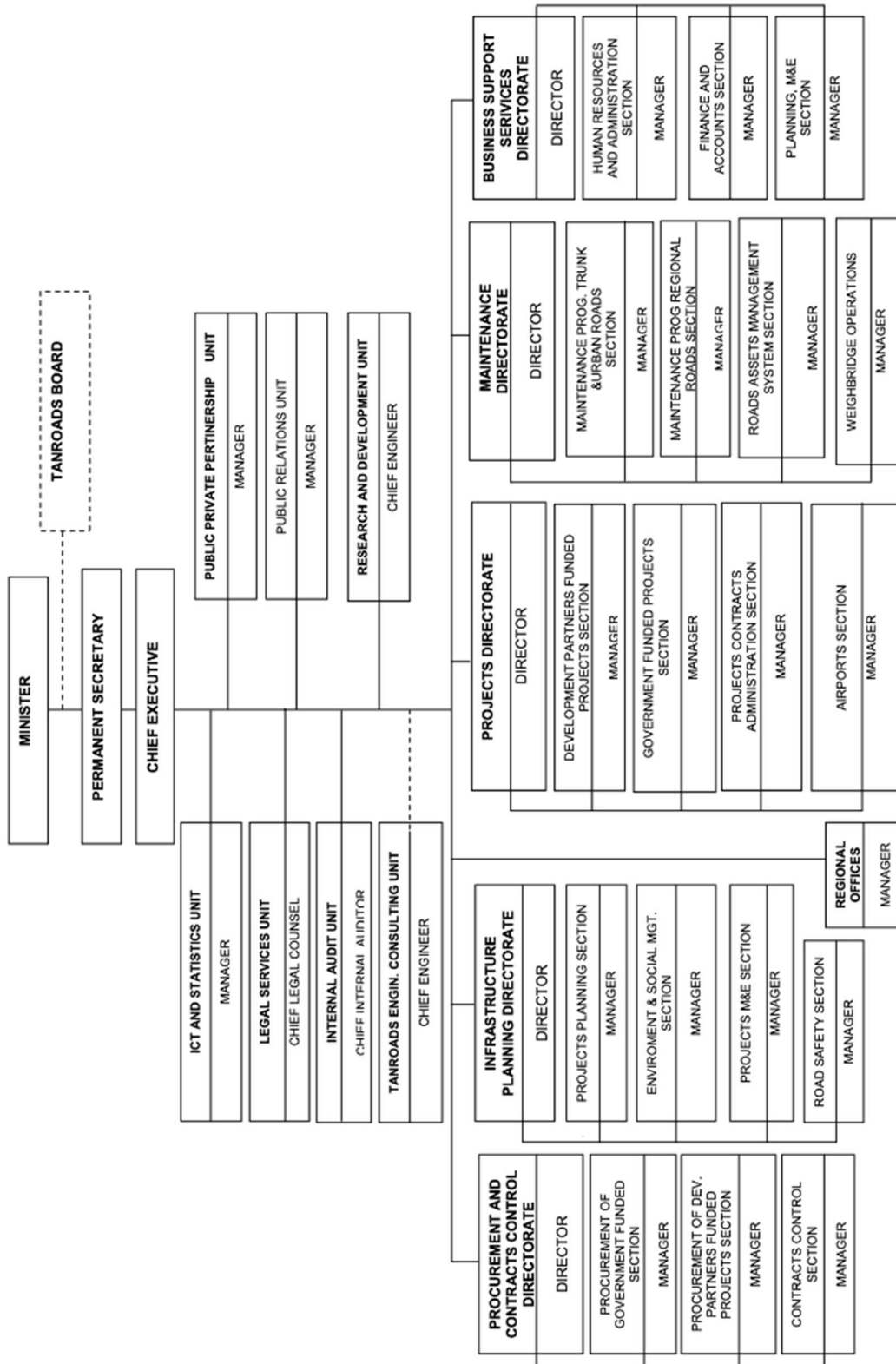
[Annex 5] Major Undertakings to be taken by the Government of Tanzania

## Project Site



## Organization Charts (Tanzania National Roads Agency)

**THE APPROVED FUNCTIONS AND ORGANIZATION STRUCTURE OF TANZANIA NATIONAL ROADS AGENCY**  
*(Approved by the President on 7<sup>th</sup> July, 2018)*



## JAPANESE GRANT

The Japanese Grant is non-reimbursable fund provided to a recipient country (hereinafter referred to as “the Recipient”) to purchase the products and/or services (engineering services and transportation of the products, etc.) for its economic and social development in accordance with the relevant laws and regulations of Japan. Followings are the basic features of the project grants operated by JICA (hereinafter referred to as “Project Grants”).

### 1. Procedures of Project Grants

Project Grants are conducted through following procedures (See “PROCEDURES OF JAPANESE GRANT” for details):

- (1) Preparation
  - The Preparatory Survey (hereinafter referred to as “the Survey”) conducted by JICA
- (2) Appraisal
  - Appraisal by the government of Japan (hereinafter referred to as “GOJ”) and JICA, and Approval by the Japanese Cabinet
- (3) Implementation
  - Exchange of Notes
    - The Notes exchanged between the GOJ and the government of the Recipient
  - Grant Agreement (hereinafter referred to as “the G/A”)
    - Agreement concluded between JICA and the Recipient
  - Banking Arrangement (hereinafter referred to as “the B/A”)
    - Opening of bank account by the Recipient in a bank in Japan (hereinafter referred to as “the Bank”) to receive the grant
  - Construction works/procurement
    - Implementation of the project (hereinafter referred to as “the Project”) on the basis of the G/A
- (4) Ex-post Monitoring and Evaluation
  - Monitoring and evaluation at post-implementation stage

### 2. Preparatory Survey

- (1) Contents of the Survey
 

The aim of the Survey is to provide basic documents necessary for the appraisal of the the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of relevant agencies of the Recipient necessary for the implementation of the Project.
- Evaluation of the feasibility of the Project to be implemented under the Japanese Grant from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of an outline design of the Project.
- Estimation of costs of the Project.
- Confirmation of Environmental and Social Considerations

The contents of the original request by the Recipient are not necessarily approved in their initial form. The Outline Design of the Project is confirmed based on the guidelines of the Japanese Grant.

JICA requests the Recipient to take measures necessary to achieve its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the executing agency of the Project. Therefore, the contents of the Project are confirmed by all relevant organizations of the Recipient based on the Minutes of Discussions.

- (2) Selection of Consultants
 

For smooth implementation of the Survey, JICA contracts with (a) consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.
- (3) Result of the Survey
 

JICA reviews the report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the feasibility of the Project.

### 3. Basic Principles of Project Grants

- (1) Implementation Stage
  - 1) The E/N and the G/A
 

After the Project is approved by the Cabinet of Japan, the Exchange of Notes (hereinafter referred to as “the E/N”) will be signed between the GOJ and the Government of the Recipient to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Recipient to define the necessary articles, in accordance with the E/N, to implement the Project, such as conditions of disbursement, responsibilities of the Recipient, and procurement conditions. The terms and conditions generally applicable to the Japanese Grant are stipulated in the “General Terms and Conditions for Japanese Grant (January 2016).”
  - 2) Banking Arrangements (B/A) (See “Financial Flow of Japanese Grant (A/P Type)” for details)

- a) The Recipient shall open an account or shall cause its designated authority to open an account under the name of the Recipient in the Bank, in principle. JICA will disburse the Japanese Grant in Japanese yen for the Recipient to cover the obligations incurred by the Recipient under the verified contracts.
- b) The Japanese Grant will be disbursed when payment requests are submitted by the Bank to JICA under an Authorization to Pay (A/P) issued by the Recipient.
- 3) Procurement Procedure  
The products and/or services necessary for the implementation of the Project shall be procured in accordance with JICA's procurement guidelines as stipulated in the G/A.
- 4) Selection of Consultants  
In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the Recipient to continue to work on the Project's implementation after the E/N and G/A.
- 5) Eligible source country  
In using the Japanese Grant disbursed by JICA for the purchase of products and/or services, the eligible source countries of such products and/or services shall be Japan and/or the Recipient. The Japanese Grant may be used for the purchase of the products and/or services of a third country as eligible, if necessary, taking into account the quality, competitiveness and economic rationality of products and/or services necessary for achieving the objective of the Project. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm, which enter into contracts with the Recipient, are limited to "Japanese nationals", in principle.
- 6) Contracts and Concurrence by JICA  
The Recipient will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be concurred by JICA in order to be verified as eligible for using the Japanese Grant.
- 7) Monitoring  
The Recipient is required to take their initiative to carefully monitor the progress of the Project in order to ensure its smooth implementation as part of their responsibility in the G/A, and to regularly report to JICA about its status by using the Project Monitoring Report (PMR).
- 8) Safety Measures  
The Recipient must ensure that the safety is highly observed during the implementation of the Project.
- 9) Construction Quality Control Meeting  
Construction Quality Control Meeting (hereinafter referred to as the "Meeting") will be held for quality assurance and smooth implementation of the Works at each stage of the Works. The member of the Meeting will be composed by the Recipient (or executing agency), the Consultant, the Contractor and JICA. The functions of the Meeting are as follows:
  - a) Sharing information on the objective, concept and conditions of design from the Contractor, before start of construction.
  - b) Discussing the issues affecting the Works such as modification of the design, test, inspection, safety control and the Client's obligation, during of construction.
- (2) Ex-post Monitoring and Evaluation Stage
  - 1) After the project completion, JICA will continue to keep in close contact with the Recipient in order to monitor that the outputs of the Project is used and maintained properly to attain its expected outcomes.
  - 2) In principle, JICA will conduct ex-post evaluation of the Project after three years from the completion. It is required for the Recipient to furnish any necessary information as JICA may reasonably request.
- (3) Others
  - 1) Environmental and Social Considerations  
The Recipient shall carefully consider environmental and social impacts by the Project and must comply with the environmental regulations of the Recipient and JICA Guidelines for Environmental and Social Considerations (April, 2010).
  - 2) Major undertakings to be taken by the Government of the Recipient  
For the smooth and proper implementation of the Project, the Recipient is required to undertake necessary measures including land acquisition, and bear an advising commission of the A/P and payment commissions paid to the Bank as agreed with the GOJ and/or JICA. The Government of the Recipient shall ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the Recipient with respect to the purchase of the Products and/or the Services be exempted or be borne by its designated authority without using the Grant and its accrued interest, since the grant fund comes from the Japanese taxpayers.
  - 3) Proper Use  
The Recipient is required to maintain and use properly and effectively the products and/or services under the Project (including the facilities constructed and the equipment purchased), to assign staff necessary for this operation and maintenance and to bear all the expenses other than those covered by the Japanese Grant.
  - 4) Export and Re-export  
The products purchased under the Japanese Grant should not be exported or re-exported from the Recipient.

## PROCEDURES OF JAPANESE GRANT

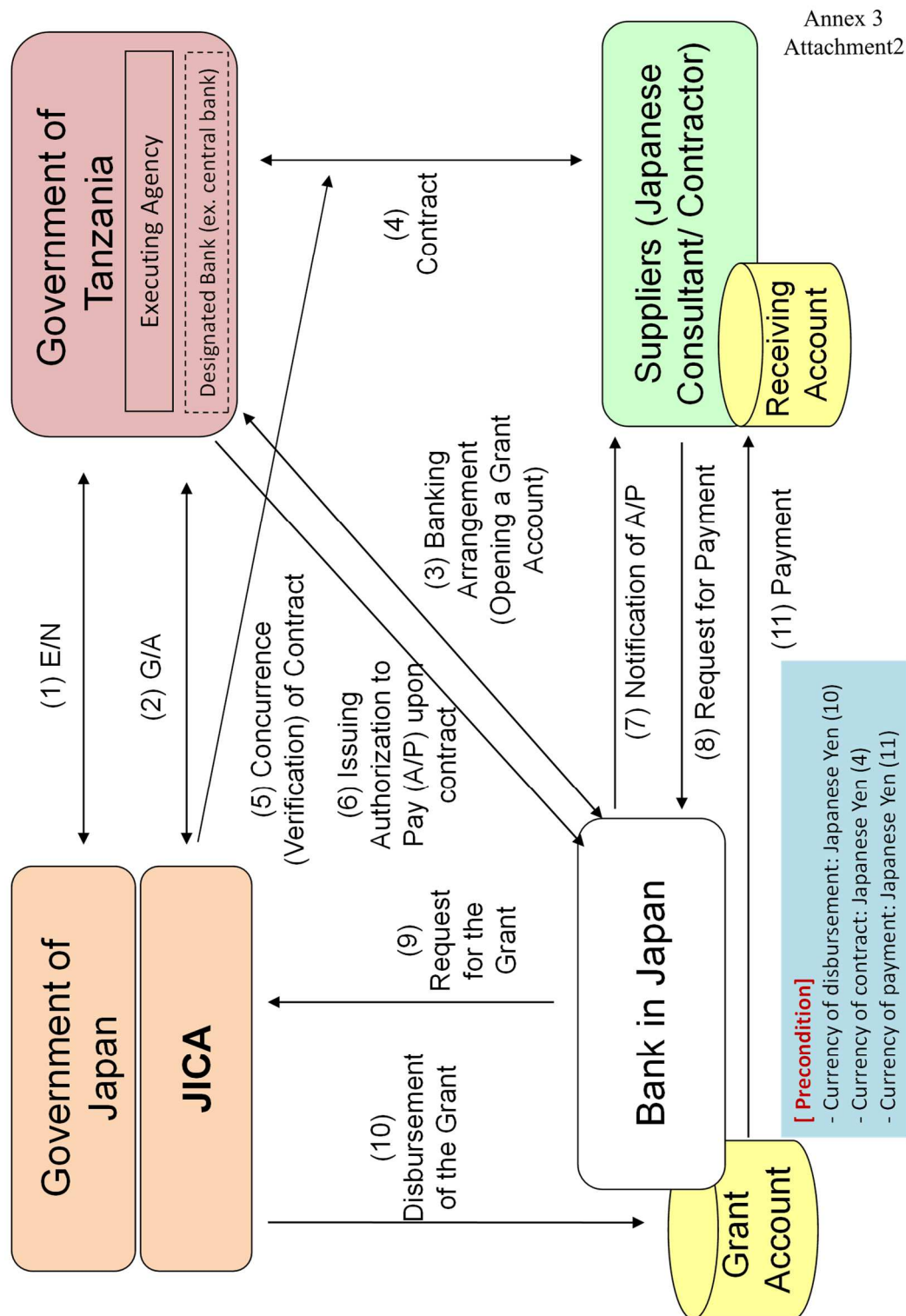
Stage	Procedures	Remarks	Recipient Government	Japanese Government	JICA	Consultants	Contractors	Agent Bank
Official Request	Request for grants through diplomatic channel	Request shall be submitted before appraisal stage.	x	x				
1. Preparation	(1) Preparatory Survey Preparation of outline design and cost estimate		x		x	x		
2. Appraisal	(2) Preparatory Survey Explanation of draft outline design, including cost estimate, undertakings, etc.		x		x	x		
	(3) Agreement on conditions for implementation	Conditions will be explained with the draft notes (E/N) and Grant Agreement (G/A) which will be signed before approval by Japanese government.	x	x (E/N)	x (G/A)			
	(4) Approval by the Japanese cabinet			x				
3. Implementation	(5) Exchange of Notes (E/N)		x	x				
	(6) Signing of Grant Agreement (G/A)		x		x			
	(7) Banking Arrangement (B/A)	Need to be informed to JICA	x					x
	(8) Contracting with consultant and issuance of Authorization to Pay (A/P)	Concurrence by JICA is required	x			x		x
	(9) Detailed Design (D/D)		x			x		
	(10) Preparation of bidding documents	Concurrence by JICA is required	x			x		
	(11) Bidding	Concurrence by JICA is required	x			x	x	
	(12) Contracting with contractor/supplier and issuance of A/P	Concurrence by JICA is required	x				x	x
	(13) Construction works/procurement	Concurrence by JICA is required for major modification of design and amendment of contracts.	x			x	x	
	(14) Completion certificate		x			x	x	
4. Ex-post monitoring & evaluation	(15) Ex-post monitoring	To be implemented generally after 1, 3, 10 years of completion, subject to change	x		x			
	(16) Ex-post evaluation	To be implemented basically after 3 years of completion	x		x			

Notes:

1. Project Monitoring Report and Report for Project Completion shall be submitted to JICA as agreed in the G/A.
2. Concurrence by JICA is required for allocation of grant for remaining amount and/or contingencies as agreed in the G/A.



## Financial Flow of Japanese Grant (A/P Type)



Annex 3  
Attachment2

<p><b><u>Project Monitoring Report</u></b></p> <p><i>on</i></p> <p><b><u>Project Name</u></b></p> <p>Grant Agreement No. <u>XXXXXXXX</u></p> <p>20XX, Month</p>
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**Organizational Information**

<b>Signer of the G/A</b>  (Recipient)	<div style="border-bottom: 1px solid black; margin-bottom: 5px;"></div> Person in Charge (Designation) <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div> Contacts <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div> Address: <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div> Phone/FAX: <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div> Email: <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div>
<b>Executing Agency</b>	<div style="border-bottom: 1px solid black; margin-bottom: 5px;"></div> Person in Charge (Designation) <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div> Contacts <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div> Address: <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div> Phone/FAX: <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div> Email: <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div>
<b>Line Ministry</b>	<div style="border-bottom: 1px solid black; margin-bottom: 5px;"></div> Person in Charge (Designation) <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div> Contacts <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div> Address: <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div> Phone/FAX: <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div> Email: <div style="border-bottom: 1px solid black; margin-top: 10px; margin-bottom: 5px;"></div>

**General Information:**

<b>Project Title</b>	
<b>E/N</b>	Signed date: Duration:

<b>G/A</b>	Signed date: Duration:
<b>Source of Finance</b>	Government of Japan: Not exceeding JPY _____ mil. Government of (_____): _____

## 1: Project Description

### 1-1 Project Objective

--

### 1-2 Project Rationale

- Higher-level objectives to which the project contributes (national/regional/sectoral policies and strategies)
- Situation of the target groups to which the project addresses

--

### 1-3 Indicators for measurement of "Effectiveness"

Quantitative indicators to measure the attainment of project objectives		
Indicators	Original (Yr     )	Target (Yr     )
Qualitative indicators to measure the attainment of project objectives		

## 2: Details of the Project

### 2-1 Location

Components	Original (proposed in the outline design)	Actual
1.		

### 2-2 Scope of the work

Components	Original* (proposed in the outline design)	Actual*
1.		

Reasons for modification of scope (if any).

(PMR)

## 2-3 Implementation Schedule

Items	Original		Actual
	<i>(proposed in the outline design)</i>	<i>(at the time of signing the Grant Agreement)</i>	

Reasons for any changes of the schedule, and their effects on the project (if any)

## 2-4 Obligations by the Recipient

### 2-4-1 Progress of Specific Obligations

See Attachment 2.

### 2-4-2 Activities

See Attachment 3.

### 2-4-3 Report on RD

See Attachment 11.

## 2-5 Project Cost

### 2-5-1 Cost borne by the Grant(Confidential until the Bidding)

Components			Cost (Million Yen)	
	Original <i>(proposed in the outline design)</i>	Actual <i>(in case of any modification)</i>	Original <sup>1),2)</sup> <i>(proposed in the outline design)</i>	Actual
	1.			
Total				

Note: 1) Date of estimation:  
2) Exchange rate: 1 US Dollar = Yen

### 2-5-2 Cost borne by the Recipient

Components			Cost (1,000 Taka)	
	Original <i>(proposed in the outline design)</i>	Actual <i>(in case of any modification)</i>	Original <sup>1),2)</sup> <i>(proposed in the outline design)</i>	Actual
	1.			

Note: 1) Date of estimation:  
2) Exchange rate: 1 US Dollar =

Reasons for the remarkable gaps between the original and actual cost, and the countermeasures (if any)

(PMR)

## 2-6 Executing Agency

- Organization's role, financial position, capacity, cost recovery etc,
- Organization Chart including the unit in charge of the implementation and number of employees.

**Original** (at the time of outline design)

name:

role:

financial situation:

institutional and organizational arrangement (organogram):

human resources (number and ability of staff):

**Actual** (PMR)

## 2-7 Environmental and Social Impacts

- The results of environmental monitoring based on Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- The results of social monitoring based on in Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- Disclosed information related to results of environmental and social monitoring to local stakeholders (whenever applicable).

# 3: Operation and Maintenance (O&M)

## 3-1 Physical Arrangement

- Plan for O&M (number and skills of the staff in the responsible division or section, availability of manuals and guidelines, availability of spareparts, etc.)

**Original** (at the time of outline design)

**Actual** (PMR)

## 3-2 Budgetary Arrangement

- Required O&M cost and actual budget allocation for O&M

**Original** (at the time of outline design)

**Actual** (PMR)

#### 4: Potential Risks and Mitigation Measures

- Potential risks which may affect the project implementation, attainment of objectives, sustainability
- Mitigation measures corresponding to the potential risks

##### Assessment of Potential Risks *(at the time of outline design)*

Potential Risks	Assessment
1. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:
	Contingency Plan (if applicable):
	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
2. (Description of Risk)	Mitigation Measures:
	Action required during the implementation stage:
	Contingency Plan (if applicable):
	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
3. (Description of Risk)	Action required during the implementation stage:
	Contingency Plan (if applicable):
Actual Situation and Countermeasures	

#### 5: Evaluation and Monitoring Plan (after the work completion)

##### 5-1 Overall evaluation

Please describe your overall evaluation on the project.

##### 5-2 Lessons Learnt and Recommendations

Please raise any lessons learned from the project experience, which might be valuable for the future assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

##### 5-3 Monitoring Plan of the Indicators for Post-Evaluation

Please describe monitoring methods, section(s)/department(s) in charge of monitoring, frequency, the term to monitor the indicators stipulated in 1-3.

Attachment

1. Project Location Map
2. Specific obligations of the Recipient which will not be funded with the Grant
3. Monthly Report submitted by the Consultant
  - Appendix - Photocopy of Contractor's Progress Report (if any)
    - Consultant Member List
    - Contractor's Main Staff List
4. Check list for the Contract (including Record of Amendment of the Contract/ Agreement and Schedule of Payment)
5. Environmental Monitoring Form / Social Monitoring Form
6. Monitoring sheet on price of specified materials (Quarterly)
7. Report on Proportion of Procurement (Recipient Country, Japan and Third Countries) (PMR (final )only)
8. Pictures (by JPEG style by CD-R) (PMR (final)only)
9. Equipment List (PMR (final )only)
10. Drawing (PMR (final )only)
11. Report on RD (After project)

Monitoring sheet on price of specified materials

1. Initial Conditions (Confirmed)

	Items of Specified Materials	Initial Volume A	Initial Unit Price (¥) B	Initial total Price C=A×B	1% of Contract Price D	Condition of payment	
						Price (Decreased) E=C−D	Price (Increased) F=C+D
1	Item 1	●●t	●	●	●	●	●
2	Item 2	●●t	●	●	●		
3	Item 3						
4	Item 4						
5	Item 5						

2. Monitoring of the Unit Price of Specified Materials

(1) Method of Monitoring : ●●

(2) Result of the Monitoring Survey on Unit Price for each specified materials

	Items of Specified Materials	1st ●month, 2015	2nd ●month, 2015	3rd ●month, 2015	4th	5th	6th
1	Item 1						
2	Item 2						
3	Item 3						
4	Item 4						
5	Item 5						

(3) Summary of Discussion with Contractor (if necessary)

-  
-  
-



## Report on Proportion of Procurement (Recipient Country, Japan and Third Countries)

(Actual Expenditure by Construction and Equipment each)

	Domestic Procurement (Recipient Country) A	Foreign Procurement (Japan) B	Foreign Procurement (Third Countries) C	Total D
Construction Cost	(A/D%)	(B/D%)	(C/D%)	
Direct Construction Cost	(A/D%)	(B/D%)	(C/D%)	
others	(A/D%)	(B/D%)	(C/D%)	
Equipment Cost	(A/D%)	(B/D%)	(C/D%)	
Design and Supervision Cost	(A/D%)	(B/D%)	(C/D%)	
Total	(A/D%)	(B/D%)	(C/D%)	

A-25

## Major Undertakings to be taken by the Government of Tanzania

**1. Specific obligations of the Government of Tanzania which will not be funded with the Grant**

(1) Before the Bidding

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To sign the banking arrangement (B/A) with a bank in Japan (the Agent Bank) to open bank account for the Grant	within 1 month after the signing of the G/A			
3	To bear the following commissions to the Agent Bank for the banking services based upon B/A				

	1) Advising commission of A/P	within 1 month after the signing of the contract(s)			
	2) Payment commission for A/P	every payment			
4	To approve IEE/EIA(Conditions of approval should be fulfilled, if any) and secure the necessary budget for implementation for EMP and EMoP (and fulfilling conditions of approval, if any).	within 1 month after the signing of the G/A			
5	To secure the necessary budget and implement land acquisition and resettlement (including preparation of resettlement sites), and compensation with full replacement cost in accordance with RAP	before notice of the bidding documents			
6	To implement social monitoring, and to submit the monitoring results to JICA, by using the monitoring form, on a quarterly basis as a part of Project Monitoring Report	until land acquisition and resettlement complete			
7	To secure and clear the following lands 1) right of way for the Project 2) temporary construction yard and stock yard near the Project area 3) borrow pit and disposal site near the Project area	before notice of the bidding documents			
8	To obtain the planning, zoning, building permit	before notice of the bidding documents			
9	To submit Project Monitoring Report (with the result of Detailed Design)	before preparation of the bidding documents			

(B/A: Banking Arrangement, A/P: Authorization to pay, N/A: Not Applicable)

## (2) During the Project Implementation

No.	Items	Deadline	In charge	Estimated Cost	Ref.
1	To issue A/P to the Agent Bank for the payment to the supplier and the contractor	within 1 month after signing of the contract(s)			
	To bear the following commissions to the Agent Bank for the banking services based upon the B/A				
2	1) Advising commission of A/P	within 1 month after signing of the contract(s)			
	2) Payment commission for A/P	every payment			
3	To ensure prompt unloading and customs clearance at the ports of disembarkation in recipient country and to assist the Supplier with internal transportation therein	during the Project			
4	To accord Japanese physical persons and/or physical persons of third countries whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the country of the Recipient and stay therein for the performance of their work	during the Project			

5	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the country of the Recipient with respect to the purchase of the products and/or the services be exempted	during the Project			
6	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project	during the Project			
7	To notify JICA promptly of any incident or accident, which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers.	during the construction			
8	1) To submit Project Monitoring Report	every month			
	2) To submit Project Monitoring Report (Final)	within one month after signing of Certificate of Completion of the Work under the contract(s)			
9	To submit a report concerning completion of the Project	within six months after completion of the Project			
10	To secure the following lands - temporary construction yard and stock yard near the Project area - borrow pit and disposal site near the Project area	during the construction			
11	To take necessary measure for safety construction - traffic control - public notifications Securing safety for personnel involved in the Project	during the construction			
12	To implement Environmental Management Plan (EMP) and Environmental Monitoring Plan (EMoP)	during the construction			
13	To submit results of environmental monitoring to JICA, by using the monitoring form, on a quarterly basis as a part of Project Monitoring Report	during the construction			
14	To implement RAP (livelihood restoration program)	for a period based on livelihood restoration program			
15	To implement social monitoring, and to submit the monitoring results to JICA, by using the monitoring form, on a quarterly basis as a part of Project Monitoring Report - Period of the monitoring may be extended if affected persons' livelihoods are not sufficiently restored. Extension of the monitoring will be decided based on agreement between 実施機関名 and JICA.	- until the end of livelihood restoration program (In case that livelihood restoration program is provided)			

## After the Project

No.	Items	Deadline	In charge	Estimated Cost	Ref.
1	To implement EMP and EMoP	for a period based on EMP and EMoP			
2	To submit results of environmental monitoring to JICA, by using the monitoring form, semi-annually - The period of environmental monitoring may be extended if any significant negative impacts on the environment are found. The extension of environmental monitoring will be decided based on the agreement between TANROADS and JICA.	for three years after the Project			
3	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid 1) Allocation of maintenance cost 2) Operation and maintenance of structure 3) Routine check/Periodic inspection	After completion of the construction			

## 2. Other obligations of the Government of Tanzania funded with the Grant

No.	Items	Deadline	Amount (Million Japanese Yen)
1	To widen an existing road between Bahi roundabout and Imagi roundabout from 2-lane to 4-lane To construct a new road with 2 lanes between Imagi roundabout and Regional Commissioner's office roundabout -		
2	To implement detailed design, bidding support and construction supervision (Consulting Service)		
3	Contingencies		
	Total		XXX

\* The Amount is provisional. This is subject to be approval of the Government of Japan.

- (2) Minutes of Discussion (M/D) for 2nd Field Survey (conducted as a web conference)

**Minutes of Discussions**  
**on the Preparatory Survey for the Project for**  
**Construction of Dodoma City Inner Ring Road**  
**(Explanation on Draft Preparatory Survey Report)**

With reference to the minutes of discussions signed between Ministry of Works and Transport (hereinafter referred to as "MoWT"), Tanzania National Roads Agency (hereinafter referred to as "TANROADS") and the Japan International Cooperation Agency (hereinafter referred to as "JICA") on November 22, 2019 and in response to the request from the Government of United Republic of Tanzania (hereinafter referred to as "Tanzania") on May, 2018, JICA organized the Preparatory Survey Team (hereinafter referred to as "the Team") for the explanation of the Draft Preparatory Survey Report (hereinafter referred to as "the Draft Report") for the Project for Construction of Dodoma City Inner Ring Road (hereinafter referred to as "the Project").

As a result of the discussions, both sides agreed on the main items described in the attached sheets. The Team and the Tanzania Officials acknowledge and agree that there is a possibility for these Minutes of Discussions to be signed by electronic signature, which will be considered as an original signature for all purposes and has the same force and effect as the original signature. The term of electronic signature includes electronically scanned and transmitted versions (e.g., via PDF) of an original signature.

Dar es Salaam, January 27, 2021



Mr. MATSUYAMA Satoru  
Senior Representative  
Tanzania Office  
Japan International Cooperation Agency



Eng. Patrick A. L. Mfugale  
Chief Executive  
Tanzania National Roads Agency  
United Republic of Tanzania

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Arch. Elius A. Mwakalinga  
Permanent Secretary  
Ministry of Works and Transport  
United Republic of Tanzania



## ATTACHMENT

1. Objective of the Project

The objective of the Project is to smoothen traffic flow, improve the living environment in Dodoma capital city, by constructing new section and widening the existing section of Dodoma city inner ring road, thereby contributing to smooth national logistics and economic growth in Tanzania.

2. Title of the Preparatory Survey

Both sides confirmed the title of the Preparatory Survey as “the Preparatory Survey for the Project for Construction of Dodoma City Inner Ring Road”.

3. Project site

Both sides confirmed that the site of the Project is in Dodoma City, which is shown in Annex 1.

4. Responsible Authority for the Project

Both sides confirmed the authorities responsible for the Project are as follows:

4-1. TANROADS will be the executing agency for the Project (hereinafter referred to as “the Executing Agency”). The Executing Agency shall coordinate with all the relevant authorities to ensure smooth implementation of the Project and ensure that the undertakings for the Project shall be taken care by relevant authorities properly and on time. The organization charts are shown in Annex 2.

4-2. The line Ministry of the Executing Agency is the MoWT. The MoWT shall be responsible for supervising the Executing Agency on behalf of the Government of Tanzania.

5. Contents of Draft Preparatory Survey Report

After the explanation of the contents of the Draft Preparatory Survey Report by the Team, the Tanzanian side agreed to its contents. JICA will finalize the Preparatory Survey Report based on the confirmed items. The report will be sent to the Tanzanian side around March 2021.

6. Cost estimate

Both sides confirmed that the cost estimate indicated in Annex5 explained by the Team is provisional and will be examined further by the Government of Japan for its



approval.

Both sides confirmed that the cost estimate including the contingency explained by the Team is provisional and will be examined further by the Government of Japan for its approval. The contingency would cover the additional cost against natural disaster, unexpected natural conditions, etc.

7. Confidentiality of the cost estimate and technical specifications

Both sides confirmed that the cost estimate and technical specifications of the Project should never be disclosed to any third parties until all the contracts under the Project are concluded.

8. Procedures and Basic Principles of Japanese Grant

The Tanzanian side agreed that the procedures and basic principles of Japanese Grant (hereinafter referred to as "the Grant") as described in Annex 3 shall be applied to the Project. In addition, the Tanzanian side agreed to take necessary measures according to the procedures.

9. Timeline for the project implementation

The Team explained to the Tanzanian side that the expected timeline for the project implementation is as attached in Annex 4.

10. Expected outcomes and indicators

Both sides agreed that key indicators for expected outcomes are as follows. The Tanzanian side will be responsible for the achievement of agreed key indicators targeted in year 2026 and shall monitor the progress for Ex-Post Evaluation based on those indicators.

[Quantitative indicators]

	Index name	Base value (Actual value in 2019)	Target value (2026) [3 years after project completion]
1	Number of large vehicles in the city center (units/day)	14,459 Nos.	8,675 Nos. (-40%)
2	Number of passengers (person/year) (Section 2-2)	11,200,000	21,100,000
3	Cargo volume (tonne/year)	4,210,000	7,920,000



(Section 2-2)		
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\*Section 2-2 will be widened to 4 lanes. Traffic volume is expected to increase since more vehicles will go through the section bypassing the city center

[Qualitative indicators]

- ① Improvement of smooth traffic flow in Dodoma city
- ② Improvement of living environment by reducing noise, vibration, etc. in Dodoma city by detouring large vehicle traffic.
- ③ Contribute to the smooth distribution and economic development of Tanzania by reducing transportation costs by facilitating intercity transportation.
- ④ Contribution to reducing traffic accidents by improving the safety and smoothness of night traffic by installing street lights and reflective studs.

11. Ex-Post Evaluation

JICA will conduct ex-post evaluation after three (3) years from the project completion, in principle, with respect to five evaluation criteria (Relevance, Effectiveness, Efficiency, Impact, Sustainability). The result of the evaluation will be publicized. The Tanzanian side is required to provide necessary support for the data collection.

12. Undertakings of the Project

Both sides confirmed the undertakings of the Project as described in Annex 5. Both sides agreed that No.5 of (2) in Annex 5 will be changed based on the results of discussions between the Government of Japan and the Government of Tanzania

The Tanzanian side assured to take the necessary measures and coordination including allocation of the necessary budget which are preconditions of implementation of the Project. It is further agreed that the costs are indicative, i.e. at Outline Design level. More accurate costs will be calculated at the Detailed Design stage.

Both sides also confirmed that the Annex 5 will be used as an attachment of G/A. Both sides confirmed that the Executing Agency shall take necessary measures to ensure and maintain the security of the Project site and the persons related to the implementation of the Project, in cooperation with relevant authorities during the Project period. Such security measures shall reasonably reflect needs of the Consultant/the Contractor engaging in the Project, as shown in Annex 5.




Both sides agreed that in case the additional security cost would be necessary for the implementation of the Project, such cost shall be borne by the Recipient without using the Grant.

13. Monitoring during the implementation

The Project will be monitored by the Executing Agency and reported to JICA by using the form of Project Monitoring Report (PMR) attached as Annex 6. The timing of submission of the PMR is described in Annex 5.

14. Project completion

Both sides confirmed that the project completes when all the facilities constructed and equipment procured by the Grant are in operation. The completion of the Project will be reported to JICA promptly by the Executing Agency, but in any event not later than six months after completion of the Project.

15. Environmental and Social Considerations

15-1 General Issues

15-1-1 Environmental Guidelines and Environmental Category

The Team explained that 'JICA Guidelines for Environmental and Social Considerations (April 2010)' (hereinafter referred to as "the Guidelines") is applicable for the Project. The Project is categorized as B because the Project is not considered to be a large-scale road project, is not located in a sensitive area, and has none of the sensitive characteristics under the Guidelines, it is not likely to have a significant adverse impact on the environment.

15-1-2 Environmental Checklist

The environmental and social considerations including major impacts and mitigation measures for the Project are summarized in the Environmental Checklist attached as Annex7. Both sides confirmed that in case of major modification of the content of the Environmental Checklist, the Tanzanian side shall submit the modified version to JICA in a timely manner.

15-2 Environmental Issues

15-2-1 Environmental Impact Assessment (EIA)

Both sides confirmed the EIA report will be approved by National Environmental Management Council (NEMC) in February 2021.



#### 15-2-2 Environmental Management Plan and Environmental Monitoring Plan

Both sides confirmed Environmental Management Plan (EMP) and Environmental Monitoring Plan (EMoP) of the Project is as Annex 8, respectively. Both side agreed that environmental mitigation measures and monitoring shall be conducted based on the EMP and EMoP, which may be updated during the detailed design stage.

#### 15-3 Social Issues

##### 15-3-1 Land Acquisition and Resettlement

Both sides confirmed the 4 ha of land would be aquired and 169 people would be relocated due to the implemenation of the Project.

Such land acquisition and resettlement shall be implemented based on the (Abbreviated) Resettlement Action Plan (RAP) as Annex 8 which was prepared in line with the Guidelines and authorized by the Tanzanian side by signing of the Grant Agreement.

#### 15-4 Environmental and Social Monitoring

##### 15-4-1 Environmental Monitoring

Both sides agreed that the Tanzanian side will submit results of environmental monitoring to JICA with PMR by using the monitoring form attached as Annex 10. The timing of submission of the monitoring form is described in Annex 5.

##### 15-4-2 Social Monitoring

Both sides confirmed that the Tanzanian side will implement social monitoring about land acquisition and resettlement plan proposed in the RAP. The Tanzanian side and the Team agreed that the Executing Agency will submit results of social monitoring to JICA with PMR by using the monitoring form attached as Annex 10.

##### 15-4-3 Information Disclosure of Monitoring Results

Both sides confirmed that the Tanzanian side will disclose results of environmental and social monitoring to local stakeholders through their website and/or in their field offices.

The Tanzanian side agreed JICA will disclose results of environmental and social monitoring submitted by the Tanzanian side as the monitoring forms attached as Annex 10 on its website.

#### 15-5. Gender Mainstreaming

Both sides confirmed that gender mainstreaming should be duly practiced for the Project implementation as the project is categorized as GIP (Gender Equality Project or Project Targeting Women), or GIS (Gender Integrated Project). In particular, Both sides agreed on the following gender elements to be integrated into the Project.

- (a) Specific measures will be taken as compensation for female householders affected by this project.
- (b) In the construction, equal pay for equal work and facilities for female workers will be installed.
- (c) Efforts from a gender perspective in recruitment, hiring systems, or staff training plans will be promoted.

## 16. Other Relevant Issues

### 16-1. Tax Issues

Both sides understood that the Government of Japan and the Government of Tanzania need to agree on items and persons that should be exempted from custom duties, internal taxes, and other fiscal levies in writing before the Project is officially approved by the Government of Japan.

Both sides confirmed that once both governments agreed on items and persons that should be exempted from custom duties, internal taxes, and other fiscal levies in writing, the additional survey will be conducted to review the cost estimates and make necessary adjustment for the approval and No.5 of (2) in Annex 5 will be changed based on the results of discussions between two governments.

Both side agreed that a supplemental minutes of discussions for the explanation of the Draft Preparatory Survey Report will be signed by the Executing Agency, MoWT, MoFP and JICA with the revised Annex5 in latter stage.

### 16-2. Disclosure of Information

Both sides confirmed that the Preparatory Survey Report from which project cost is excluded will be disclosed to the public after completion of the Preparatory Survey. The comprehensive report including the project cost will be disclosed to the public after all the contracts under the Project are concluded.

### 16-3. Completion of Inner Ring Road

The Executing Agency explained that Tanzanian side has already completed the construction of the section between Shabiby Roundabout and Makulu Roundabout on 5<sup>th</sup> December 2019

### 16-4. Traffic Management inside the Inner Ring Road

In relation to the quantitative indicator 1 of article 10, both sides confirmed that Tanzanian side will prepare regulations to limit access of large vehicles inflowing



inside inner ring road to improve the living environment in the city.

#### 16-5. Recommendations of Road Maintenance Conditions

In order to maintain the road to appropriate conditions, it is important to manage and maintain road facilities adequately by keeping in good conditions the pavement and other supplemental facilities thus effectively extending their life spans. The following recommendations are proposed:

- To check facilities regularly in order to control their conditions.
- To clean facilities, especially the side drains and culverts.
- To secure adequate budget for maintenance.
- To appropriately manage their maintenance cycle, taking into account timely routine and periodic maintenance.

#### 16-6. Safety Measures

The Tanzanian side understood the importance of safety measure in construction and service stage based on "The Guidance for the Management of Safety for Construction Works in Japanese ODA Projects" published on JICA's URL below.

[http://www.jica.go.jp/activities/schemes/oda\\_safety/ku57pq00001nz4cu-att/guidance\\_en.pdf](http://www.jica.go.jp/activities/schemes/oda_safety/ku57pq00001nz4cu-att/guidance_en.pdf)

Annex 1 Project Site

Annex 2 Organization Chart

Annex 3 Japanese Grant

Annex 4 Implementation Form

Annex 5 Major Undertakings to be taken by the Government of Tanzania

Annex 6 Project Monitoring Report

Annex 7 Environmental Check List

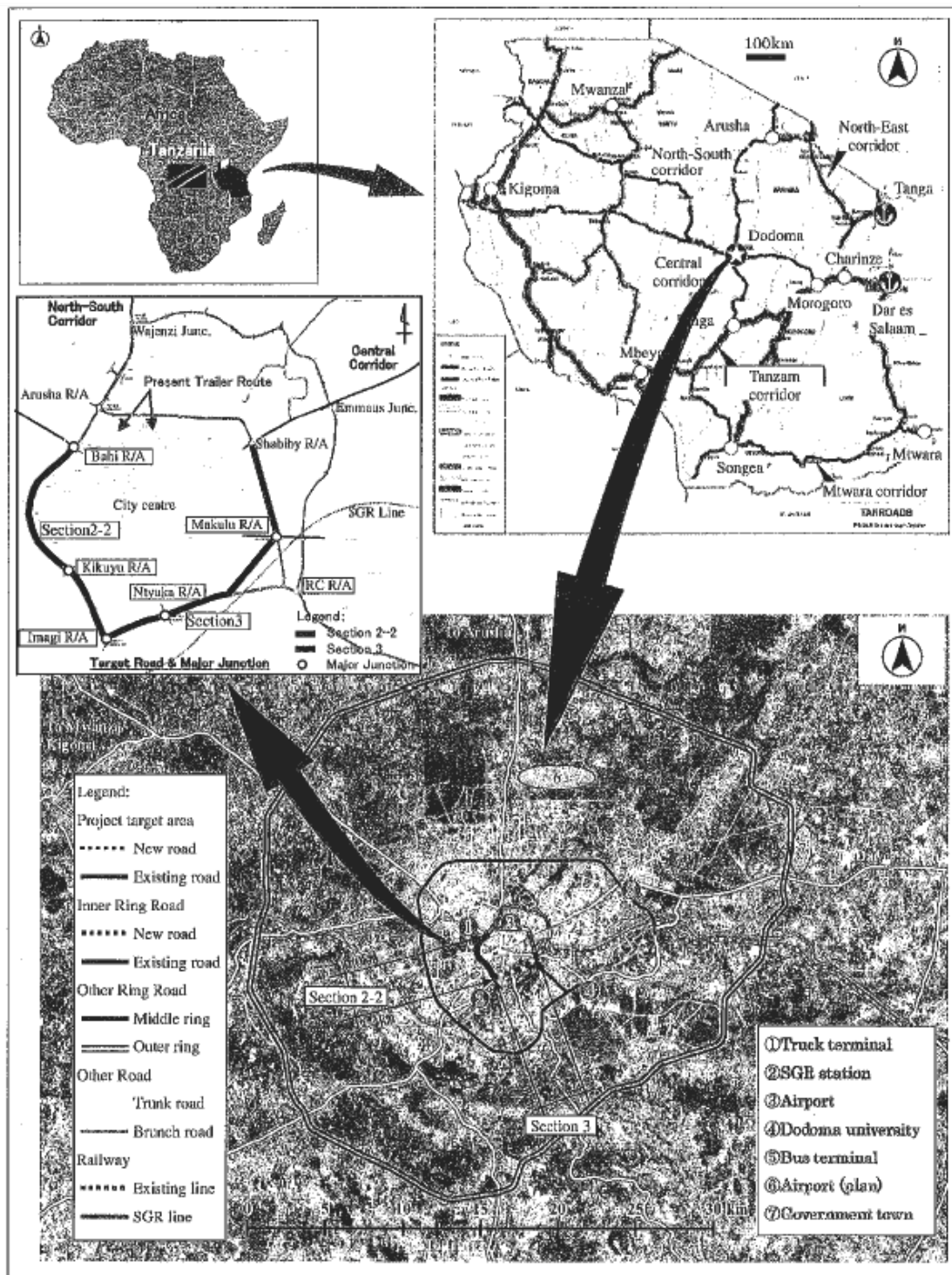
Annex 8 Environmental Management Plan/Environmental Monitoring Plan

Annex 9 (Abbreviated) Resettlement Action Plan

Annex 10 Environmental and Social Monitoring Form



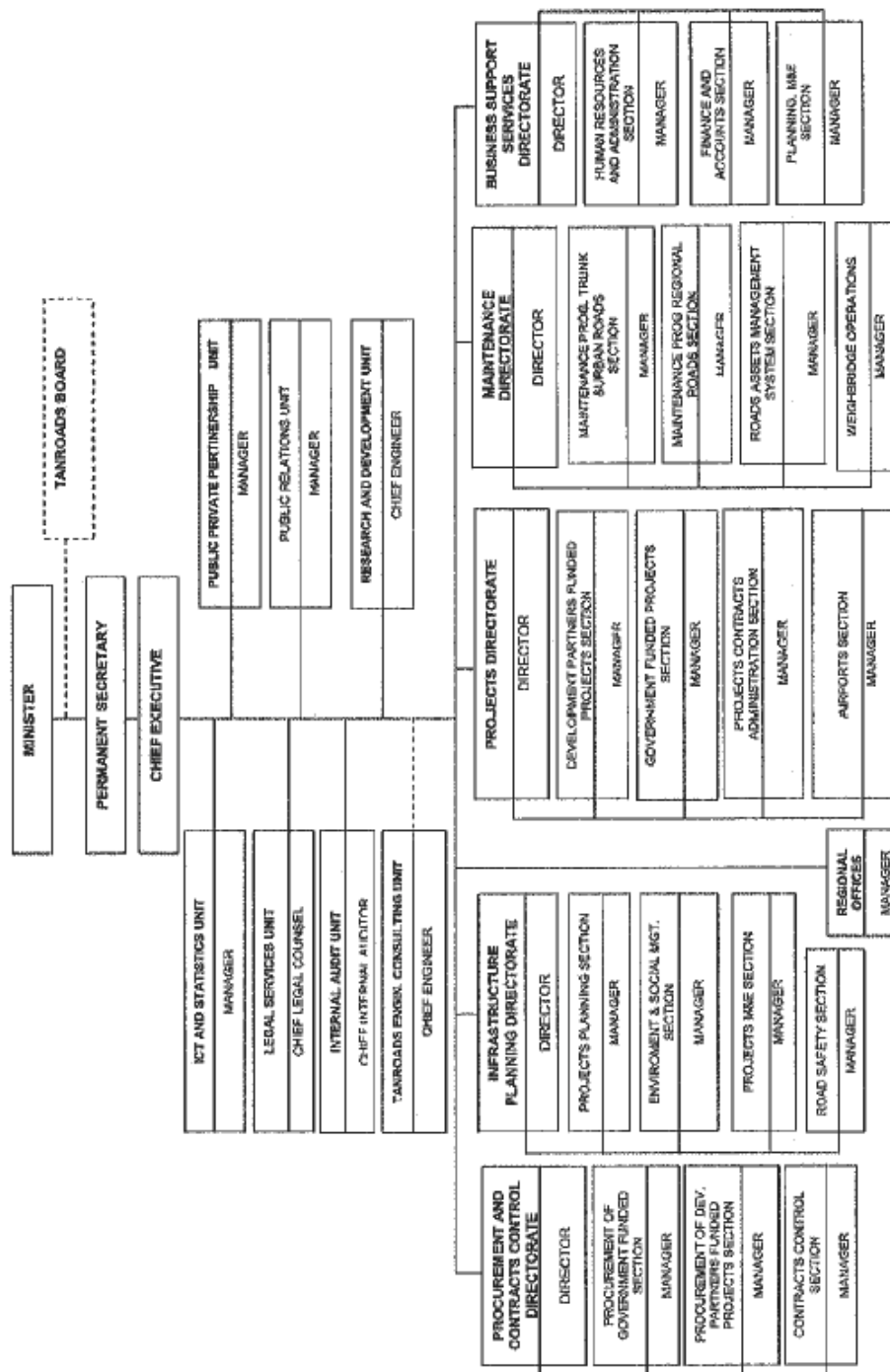
# Annex 1: Project Site



Location Map for the Project Road Section

## Organization Charts (Tanzania National Roads Agency)

**THE APPROVED FUNCTIONS AND ORGANIZATION STRUCTURE OF TANZANIA NATIONAL ROADS AGENCY**  
*(Approved by the President on 7<sup>th</sup> July, 2018)*



## JAPANESE GRANT

The Japanese Grant is non-reimbursable fund provided to a recipient country (hereinafter referred to as "the Recipient") to purchase the products and/or services (engineering services and transportation of the products, etc.) for its economic and social development in accordance with the relevant laws and regulations of Japan. Followings are the basic features of the project grants operated by JICA (hereinafter referred to as "Project Grants").

### 1. Procedures of Project Grants

Project Grants are conducted through following procedures (See "PROCEDURES OF JAPANESE GRANT" for details):

#### (1) Preparation

- The Preparatory Survey (hereinafter referred to as "the Survey") conducted by JICA

#### (2) Appraisal

- Appraisal by the government of Japan (hereinafter referred to as "GOJ") and JICA, and Approval by the Japanese Cabinet

#### (3) Implementation

##### Exchange of Notes

- The Notes exchanged between the GOJ and the government of the Recipient

##### Grant Agreement (hereinafter referred to as "the G/A")

- Agreement concluded between JICA and the Recipient

##### Banking Arrangement (hereinafter referred to as "the B/A")

- Opening of bank account by the Recipient in a bank in Japan (hereinafter referred to as "the Bank") to receive the grant

##### Construction works/procurement

- Implementation of the project (hereinafter referred to as "the Project") on the basis of the G/A

#### (4) Ex-post Monitoring and Evaluation

- Monitoring and evaluation at post-implementation stage

### 2. Preparatory Survey

#### (1) Contents of the Survey

The aim of the Survey is to provide basic documents necessary for the appraisal of the the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of



relevant agencies of the Recipient necessary for the implementation of the Project.

- Evaluation of the feasibility of the Project to be implemented under the Japanese Grant from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of an outline design of the Project.
- Estimation of costs of the Project.
- Confirmation of Environmental and Social Considerations

The contents of the original request by the Recipient are not necessarily approved in their initial form. The Outline Design of the Project is confirmed based on the guidelines of the Japanese Grant.

JICA requests the Recipient to take measures necessary to achieve its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the executing agency of the Project. Therefore, the contents of the Project are confirmed by all relevant organizations of the Recipient based on the Minutes of Discussions.

#### (2) Selection of Consultants

For smooth implementation of the Survey, JICA contracts with (a) consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

#### (3) Result of the Survey

JICA reviews the report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the feasibility of the Project.

### 3. Basic Principles of Project Grants

#### (1) Implementation Stage

##### 1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes (hereinafter referred to as "the E/N") will be signed between the GOJ and the Government of the Recipient to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Recipient to define the necessary articles, in accordance with the E/N, to implement the Project, such as conditions of disbursement, responsibilities of the Recipient, and procurement conditions. The terms and conditions generally applicable to the Japanese Grant are stipulated in the "General Terms and Conditions for Japanese Grant (January 2016)."



2) Banking Arrangements (B/A) (See "Financial Flow of Japanese Grant (A/P Type)" for details)

- a) The Recipient shall open an account or shall cause its designated authority to open an account under the name of the Recipient in the Bank, in principle. JICA will disburse the Japanese Grant in Japanese yen for the Recipient to cover the obligations incurred by the Recipient under the verified contracts.
- b) The Japanese Grant will be disbursed when payment requests are submitted by the Bank to JICA under an Authorization to Pay (A/P) issued by the Recipient.

3) Procurement Procedure

The products and/or services necessary for the implementation of the Project shall be procured in accordance with JICA's procurement guidelines as stipulated in the G/A.

4) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the Recipient to continue to work on the Project's implementation after the E/N and G/A.

5) Eligible source country

In using the Japanese Grant disbursed by JICA for the purchase of products and/or services, the eligible source countries of such products and/or services shall be Japan and/or the Recipient. The Japanese Grant may be used for the purchase of the products and/or services of a third country as eligible, if necessary, taking into account the quality, competitiveness and economic rationality of products and/or services necessary for achieving the objective of the Project. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm, which enter into contracts with the Recipient, are limited to "Japanese nationals", in principle.

6) Contracts and Concurrence by JICA

The Recipient will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be concurred by JICA in order to be verified as eligible for using the Japanese Grant.

7) Monitoring

The Recipient is required to take their initiative to carefully monitor the progress of the Project in order to ensure its smooth implementation as part of their responsibility in the G/A, and to regularly report to JICA about its status by using the Project Monitoring Report (PMR).

8) Safety Measures

The Recipient must ensure that the safety is highly observed during the implementation of the Project.

9) Construction Quality Control Meeting

Construction Quality Control Meeting (hereinafter referred to as the "Meeting") will be held for quality assurance and smooth implementation of the Works at each stage of the Works. The member of the Meeting will be composed by the



Recipient (or executing agency), the Consultant, the Contractor and JICA. The functions of the Meeting are as followings:

- a) Sharing information on the objective, concept and conditions of design from the Contractor, before start of construction.
- b) Discussing the issues affecting the Works such as modification of the design, test, inspection, safety control and the Client's obligation, during of construction.

## (2) Ex-post Monitoring and Evaluation Stage

- 1) After the project completion, JICA will continue to keep in close contact with the Recipient in order to monitor that the outputs of the Project is used and maintained properly to attain its expected outcomes.
- 2) In principle, JICA will conduct ex-post evaluation of the Project after three years from the completion. It is required for the Recipient to furnish any necessary information as JICA may reasonably request.

## (3) Others

### 1) Environmental and Social Considerations

The Recipient shall carefully consider environmental and social impacts by the Project and must comply with the environmental regulations of the Recipient and JICA Guidelines for Environmental and Social Considerations (April, 2010).

### 2) Major undertakings to be taken by the Government of the Recipient

For the smooth and proper implementation of the Project, the Recipient is required to undertake necessary measures including land acquisition, and bear an advising commission of the A/P and payment commissions paid to the Bank as agreed with the GOJ and/or JICA. The Government of the Recipient shall ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the Recipient with respect to the purchase of the Products and/or the Services be exempted or be borne by its designated authority without using the Grant and its accrued interest, since the grant fund comes from the Japanese taxpayers.

### 3) Proper Use

The Recipient is required to maintain and use properly and effectively the products and/or services under the Project (including the facilities constructed and the equipment purchased), to assign staff necessary for this operation and maintenance and to bear all the expenses other than those covered by the Japanese Grant.



4) Export and Re-export

The products purchased under the Japanese Grant should not be exported or re-exported from the Recipient.



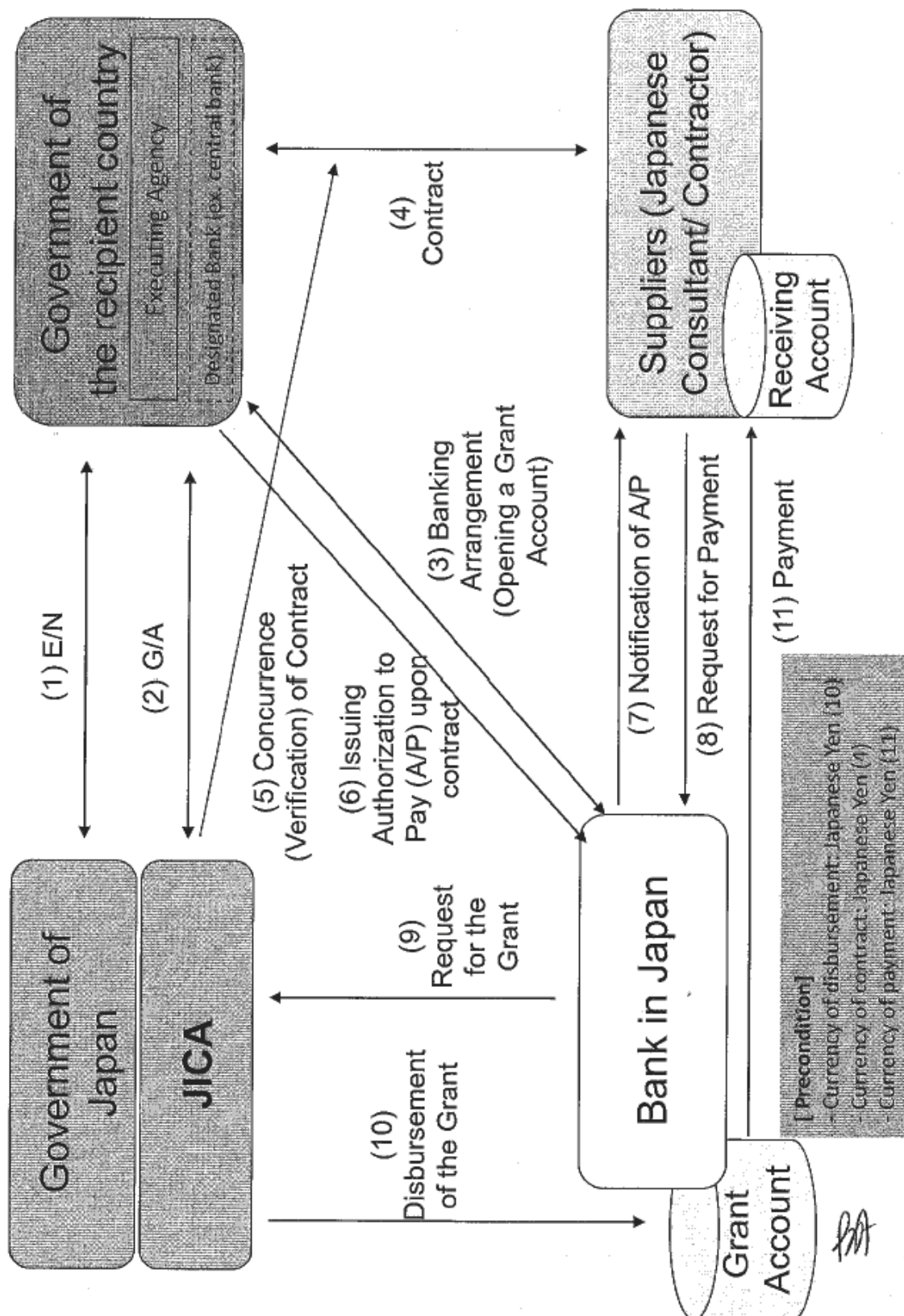
PROCEDURES OF JAPANESE GRANT

Stage	Procedures	Remarks	Recipient Government	Japanese Government	JICA	Consultants	Contractors	Agent Bank
Official Request	Request for grants through diplomatic channel	Request shall be submitted before appraisal stage.	x	x				
1. Preparation	(1) Preparatory Survey Preparation of outline design and cost estimate		x		x	x		
2. Appraisal	(2) Preparatory Survey Explanation of draft outline design, including cost estimate, undertakings, etc.		x		x	x		
	(3) Agreement on conditions for implementation	Conditions will be explained with the draft notes (E/N) and Grant Agreement (G/A) which will be signed before approval by Japanese government.	x	x (E/N)	x (G/A)			
	(4) Approval by the Japanese cabinet			x				
3. Implementation	(5) Exchange of Notes (E/N)		x	x				
	(6) Signing of Grant Agreement (G/A)		x		x			
	(7) Banking Arrangement (B/A)	Need to be informed to JICA	x					x
	(8) Contracting with consultant and issuance of Authorization to Pay (A/P)	Concurrence by JICA is required	x			x		x
	(9) Detail design (D/D)		x			x		
	(10) Preparation of bidding documents	Concurrence by JICA is required	x			x		
	(11) Bidding	Concurrence by JICA is required	x			x	x	
	(12) Contracting with contractor/supplier and issuance of A/P	Concurrence by JICA is required	x				x	x
	(13) Construction works/procurement	Concurrence by JICA is required for major modification of design and amendment of contracts.	x			x	x	
	(14) Completion certificate		x			x	x	
4. Ex-post monitoring & evaluation	(15) Ex-post monitoring	To be implemented generally after 1, 3, 10 years of completion, subject to change	x		x			
	(16) Ex-post evaluation	To be implemented basically after 3 years of completion	x		x			

notes:

1. Project Monitoring Report and Report for Project Completion shall be submitted to JICA as agreed in the G/A.
2. Concurrence by JICA is required for allocation of grant for remaining amount and/or contingencies as agreed in the G/A.

# Financial Flow of Japanese Grant (A/P Type)





[illegible]

## Major Undertakings to be taken by the Government of Tanzania

**1. Specific obligations of the Government of Tanzania which will not be funded with the Grant****(1) Before the Bidding**

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To sign the banking arrangement (B/A) with a bank in Japan (the Agent Bank) to open bank account for the Grant	within 1 month after the signing of the G/A	TANROADS	Nil	
2	To issue A/P to the Agent Bank for the payment to the consultant	within 1 month after the signing of the contract(s)	TANROADS		
3	To bear the following commissions to the Agent Bank for the banking services based upon B/A				
	1) Advising commission of A/P	within 1 month after the signing of the contract(s)	Ministry of Finance and Planning (MOFP)		
	2) Payment commission for A/P	every payment	MOFP		
4	To approve IEE/EIA (Conditions of approval should be fulfilled, if any) and secure the necessary budget for implementation for EMP and EMoP (and fulfilling conditions of approval, if any).	within 1 month after the signing of the G/A	NEMC		
5	To secure the necessary budget and implement land acquisition and resettlement (including preparation of resettlement sites), and compensation with full replacement cost in accordance with RAP	before notice of the bidding documents	TANROADS		
6	To implement social monitoring, and to submit the monitoring results to JICA, by using the monitoring form, on a quarterly basis as a part of Project Monitoring Report	until land acquisition and resettlement complete	TANROADS		
7	To secure and clear the following lands 1) right of way : 40m and 60m 2) temporary construction yard and stock yard near the Project area 3) borrow pit and disposal site near the Project area	before notice of the bidding documents	TANROADS		
8	To obtain the planning, zoning, building permit	before notice of the bidding documents	TANROADS		
9	To clear obstacles such as: 1) Public utilities (water pipes, electricity line, telephone line, etc.) 2) Other obstacles (advertise board and others)	before notice of the bidding documents	TANROADS		
10	To submit Project Monitoring Report (with the result of Detailed Design)	before preparation of the bidding documents	TANROADS		

(B/A: Banking Arrangement, A/P: Authorization to pay, N/A: Not Applicable)



## (2) During the Project Implementation

No.	Items	Deadline	In charge	Estimated Cost	Ref.
1	To issue A/P to the Agent Bank for the payment to the supplier and the contractor	within 1 month after signing of the contract(s)	TANROADS		
2	To bear the following commissions to the Agent Bank for the banking services based upon the B/A				
	1) Advising commission of A/P	within 1 month after signing of the contract(s)	MOFP		
	2) Payment commission for A/P	every payment	MOFP		
3	To ensure prompt unloading and customs clearance at the ports of disembarkation in recipient country and to assist the Supplier with internal transportation therein	during the Project	TANROADS		
4	To accord Japanese physical persons and/or physical persons of third countries whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the country of the Recipient and stay therein for the performance of their work	during the Project	TANROADS		

No.	Items	Deadline	In charge	Estimated Cost	Ref.
5	To be decided	during the Project	MOFP		
6	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project	during the Project	TANROADS		
7	To notify JICA promptly of any incident or accident, which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers.	during the construction	TANROADS		
8	1) To submit Project Monitoring Report	every month	TANROADS		
	2) To submit Project Monitoring Report (Final) (including as-built drawings, equipment list, photographs, etc.)	within one month after issuance of Certificate of Completion of the Work under the contract(s)	TANROADS		
9	To submit a report concerning completion of the Project	within six months after completion of the Project	TANROADS		
10	To provide facilities for distribution of electricity and water supply necessary for the implementation of the Project				
	1) Electricity a) The distributing line to the temporary site yard. b) Arrangement for permanent power supply for street lighting.	a) before start of the construction b) After completion of construction at the time of construction completion	TANROADS		
	2) Water Supply The city water distribution to the temporary site yard	before start of the construction	TANROADS		
11	To secure the following lands - temporary construction yard and stock yard near the Project area - borrow pit and disposal site near the Project area	during the construction	TANROADS		
12	To take measure necessary for security and safety of the Project - maintaining the safety of workers and the general public by thorough implementation of safety measures and immediate action in the case of accident - traffic control around the site(s) and on transportation routes of construction materials - installation of fences around the site(s)	during the construction	TANROADS		
13	To implement Environmental Management Plan (EMP) and Environmental Monitoring Plan (EMoP)	during the construction	TANROADS		
14	To submit results of environmental monitoring to JICA, by using the monitoring form, on a quarterly basis as a part of Project Monitoring Report	during the construction	TANROADS		
15	To implement RAP (livelihood restoration program)	for a period based on livelihood restoration program	TANROADS		
16	To implement social monitoring, and to submit the monitoring results to JICA, by using the monitoring form, on a quarterly basis as a part of Project Monitoring Report - Period of the monitoring may be extended if affected persons' livelihoods are not sufficiently restored. Extension of the monitoring will be decided based on agreement between TANROADS and JICA.	- until the end of livelihood restoration program (In case that livelihood restoration program is provided)	TANROADS		

## (3) After the Project

No.	Items	Deadline	In charge	Estimated Cost	Ref.
1	To implement EMP and EMoP	for a period based on EMP and EMoP	TANROADS		
2	To submit results of environmental monitoring to JICA, by using the monitoring form, semi-annually - The period of environmental monitoring may be extended if any significant negative impacts on the environment are found. The extension of environmental monitoring will be decided based on the agreement between TANROADS and JICA.	for three years after the Project	TANROADS		
3	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid 1) Allocation of maintenance cost 2) Operation and maintenance of structure 3) Routine check/Periodic inspection	After completion of the construction	TANROADS		

## 2. Other obligations of the Government of Tanzania funded with the Grant (Project components and provisional amount)

components and provisional amount)			
No.	Items	Deadline	Amount (Million Japanese Yen)
1	To widen an existing road between Bahi roundabout and Imagi roundabout from 2-lane to 4-lane To construct a new road with 2 lanes between Imagi roundabout and Makulu roundabout -		
2	To implement detailed design, bidding support and construction supervision (Consulting Service)		
3	Contingencies		
Confidential			

\* The Amount is provisional. This is subject to be approval of the Government of Japan.

<p><b><u>Project Monitoring Report</u></b></p> <p><b>on</b></p> <p><b><u>the Project for Construction of Dodoma City Inner Ring Road</u></b></p> <p><b><u>Grant Agreement No. XXXXXXXX</u></b></p> <p>20XX, Month</p>
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## Organizational Information

<b>Signer of the G/A (Recipient)</b>	Person in Charge <u>(Designation)</u> <hr/> Contacts <u>Address:</u> <u>Phone/FAX:</u> <u>Email:</u>
<b>Executing Agency</b>	Person in Charge <u>(Designation)</u> <hr/> Contacts <u>Address:</u> <u>Phone/FAX:</u> <u>Email:</u>
<b>Line Ministry</b>	Person in Charge <u>(Designation)</u> <hr/> Contacts <u>Address:</u> <u>Phone/FAX:</u> <u>Email:</u>

## General Information:

<b>Project Title</b>	
<b>E/N</b>	Signed date: Duration:
<b>G/A</b>	Signed date: Duration:
<b>Source of Finance</b>	Government of Japan: Not exceeding JPY _____ mil. Government of (_____): _____




## 1: Project Description

### 1-1 Project Objective

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### 1-2 Project Rationale

- Higher-level objectives to which the project contributes (national/regional/sectoral policies and strategies)
- Situation of the target groups to which the project addresses

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### 1-3 Indicators for measurement of "Effectiveness"

Quantitative indicators to measure the attainment of project objectives		
Indicators	Original (Yr )	Target (Yr )
Qualitative indicators to measure the attainment of project objectives		

## 2: Details of the Project

### 2-1 Location

Components	Original (proposed in the outline design)	Actual
1.		

### 2-2 Scope of the work

Components	Original* (proposed in the outline design)	Actual*
1.		

Reasons for modification of scope (if any).

(PMR)
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### 2-3 Implementation Schedule

Items	Original		Actual
	(proposed in the outline design)	(at the time of signing the Grant Agreement)	

Reasons for any changes of the schedule, and their effects on the project (if any)

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### 2-4 Obligations by the Recipient

2-4-1 Progress of Specific Obligations  
See Attachment 2.

2-4-2 Activities  
See Attachment 3.

2-4-3 Report on RD  
See Attachment 11.

### 2-5 Project Cost

2-5-1 Cost borne by the Grant(Confidential until the Bidding)

Components			Cost (Million Yen)	
	Original (proposed in the outline design)	Actual (in case of any modification)	Original <sup>1),2)</sup> (proposed in the outline design)	Actual
	1.			
Total				

Note: 1) Date of estimation:  
2) Exchange rate: 1 US Dollar = Yen

2-5-2 Cost borne by the Recipient

Components			Cost (1,000 Taka)	
	Original (proposed in the outline design)	Actual (in case of any modification)	Original <sup>1),2)</sup> (proposed in the outline design)	Actual
	1.			

Note: 1) Date of estimation:  
2) Exchange rate: 1 US Dollar =

Reasons for the remarkable gaps between the original and actual cost, and the countermeasures (if any)

(PMR)

## 2-6 Executing Agency

- Organization's role, financial position, capacity, cost recovery etc,
- Organization Chart including the unit in charge of the implementation and number of employees.

**Original** (at the time of outline design)

name:

role:

financial situation:

institutional and organizational arrangement (organogram):

human resources (number and ability of staff):

**Actual** (PMR)

## 2-7 Environmental and Social Impacts

- The results of environmental monitoring based on Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- The results of social monitoring based on in Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- Disclosed information related to results of environmental and social monitoring to local stakeholders (whenever applicable).

## 3: Operation and Maintenance (O&M)

### 3-1 Physical Arrangement

- Plan for O&M (number and skills of the staff in the responsible division or section, availability of manuals and guidelines, availability of spareparts, etc.)

**Original** (at the time of outline design)

**Actual** (PMR)

### 3-2 Budgetary Arrangement

- Required O&M cost and actual budget allocation for O&M

**Original** (at the time of outline design)

Actual (PMR)

#### 4: Potential Risks and Mitigation Measures

- Potential risks which may affect the project implementation, attainment of objectives, sustainability
- Mitigation measures corresponding to the potential risks

##### Assessment of Potential Risks (at the time of outline design)

Potential Risks	Assessment
1. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:
2. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:
3. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:

J.E

BA



	Contingency Plan (if applicable):
Actual Situation and Countermeasures (PMR)	

## 5: Evaluation and Monitoring Plan (after the work completion)

### 5-1 Overall evaluation

Please describe your overall evaluation on the project.

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### 5-2 Lessons Learnt and Recommendations

Please raise any lessons learned from the project experience, which might be valuable for the future assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

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### 5-3 Monitoring Plan of the Indicators for Post-Evaluation

Please describe monitoring methods, section(s)/department(s) in charge of monitoring, frequency, the term to monitor the indicators stipulated in 1-3.

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*[Handwritten signature]*

*[Handwritten signature]*

Attachment

1. Project Location Map
2. Specific obligations of the Recipient which will not be funded with the Grant
3. Monthly Report submitted by the Consultant
- Appendix - Photocopy of Contractor's Progress Report (if any)
  - Consultant Member List
  - Contractor's Main Staff List
4. Check list for the Contract (including Record of Amendment of the Contract/Agreement and Schedule of Payment)
5. Environmental Monitoring Form / Social Monitoring Form
6. Monitoring sheet on price of specified materials (Quarterly)
7. Report on Proportion of Procurement (Recipient Country, Japan and Third Countries) (PMR (final) only)
8. Pictures (by JPEG style by CD-R) (PMR (final) only)
9. Equipment List (PMR (final) only)
10. Drawing (PMR (final) only)
11. Report on RD (After project)



## Monitoring sheet on price of specified materials

## 1. Initial Conditions (Confirmed)

	Items of Specified Materials	Initial Volume A	Initial Unit Price (¥) B	Initial total Price C=A×B	1% of Contract Price D	Condition of payment Price (Decreased) E=C-D	Price (Increased) F=C+D
1	Item 1	●●t	●	●	●	●	●
2	Item 2	●●t	●	●	●		
3	Item 3						
4	Item 4						
5	Item 5						

## 2. Monitoring of the Unit Price of Specified Materials

(1) Method of Monitoring : ●●

(2) Result of the Monitoring Survey on Unit Price for each specified materials

	Items of Specified Materials	1st ● month, 2015	2nd ● month, 2015	3rd ● month, 2015	4th	5th	6th
1	Item 1						
2	Item 2						
3	Item 3						
4	Item 4						
5	Item 5						

(3) Summary of Discussion with Contractor (if necessary)

Report on Proportion of Procurement (Recipient Country, Japan and Third Countries)  
(Actual Expenditure by Construction and Equipment each)

	Domestic Procurement (Recipient Country) A	Foreign Procurement (Japan) B	Foreign Procurement (Third Countries) C	Total D
Construction Cost	(A/D%)	(B/D%)	(C/D%)	
Direct Construction Cost	(A/D%)	(B/D%)	(C/D%)	
others	(A/D%)	(B/D%)	(C/D%)	
Equipment Cost	(A/D%)	(B/D%)	(C/D%)	
Design and Supervision Cost	(A/D%)	(B/D%)	(C/D%)	
Total	(A/D%)	(B/D%)	(C/D%)	

Date:

Ref. No.

JAPAN INTERNATIONAL COOPERATION AGENCY

JICA TANZANIA OFFICE

[Address specified in the Article 5 of the Grant Agreement]

Attention: Chief Representative

Ladies and Gentlemen:

NOTICE CONCERNING PROGRESS OF PROJECT

Reference : Grant Agreement, dated [signed date of the G/A], for [name of the Project]

In accordance to the Article 6 (3) of the Grant Agreement, we would like to report on the progress of the Project up to the following stages:

[Common]

- ☐ Preparation of bidding documents - result of detailed design
- ☐ Completion of final works under construction/procurement contract

[Construction]

- ☐ Monthly progress [Month/Year]

[Procurement of Equipment]

- ☐ Shipping/delivery, hand-over (take over) of equipment
- ☐ Installation works
- ☐ Operational training

- ☐ Other \_\_\_\_\_

Please see the details as per attached Project Monitoring Report (PMR).

Very truly yours,

[Signature] \_\_\_\_\_

[Name of the signer]

[Title of the signer]

[Name of the executing agency]



cc:  
Director General  
Financial Cooperation Implementation Department  
Japan International Cooperation Agency  
*[Address specified in the Article 5 of the Grant Agreement]*



Annex 7 Environmental Check List

Category	Environmental Item	Main Check Items	Yes: Y No: N	Specific environmental and social considerations (Reason for Yes / No, basis, mitigation measures, etc.)
1. Permits and Explanation	(1) EIA and Environmental Permits	<p>(a) Have EIA reports been officially completed?</p> <p>(b) Have EIA reports been approved by authorities of the host country's government?</p> <p>(c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied?</p> <p>(d) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?</p>	<p>(a) Y</p> <p>(b) N</p> <p>(c) N</p> <p>(d) Y</p>	<p>(a) A draft EIA report was prepared in February 2020. According to the "Environmental Impact Assessment and Audit Regulations, 2005," which is defined under the "Environmental Management Act, No. 20 of 2004," The project is included in the scope of the business list (the First Schedule, Mandatory list A, 9- (i)) that requires environmental impact assessment, and it is required to carry out full-scale environmental impact assessment (EIA). TANROADS secured the budget necessary for the implementation of EIA, conducted an EIA survey and prepared an EIA report.</p> <p>(b) TANROADS is expected to submit the prepared EIA report to NEMC and obtain EIA license from the Minister for Environment by November 2020.</p> <p>(c) See (b).</p> <p>(d) It is necessary to obtain the following permits and approvals. Land use permit of about 1km at the end point: TANROADS has received a land use permit from the related land owner in Mar., 2020.</p>

for



2 Countermeasures against pollution	(1) Air quality	(a) Is there any effect from air pollutants emitted from vehicles that pass by? Is it consistent with the environmental standards of the country concerned? (b) If the air pollution status near the route is already above the environmental standard, will the project further worsen the air pollution? Are measures taken for air quality?	(a) Y (b) Y	(a) ~ (b) Although air pollutants will not be emitted, dust will be generated during construction due to large vehicles for construction, so water sprinkling will be implemented.
	(2) Water quality	(a) Is the quality of water in the downstream water area deteriorated due to soil runoff from exposed topsoil such as embankments and cuts? (b) Is the runoff drainage from the road surface polluting groundwater and other water sources? (c) Is the drainage from the parking / service area, etc. consistent with the country's emission standards? In addition, will the discharge produce water bodies that are inconsistent with the environmental standards of the country concerned?	(a) N (b) N (c) N	(a) Large-scale topographical changes and earthworks will not be carried out because the roads will be improved. Turbid water will be generated due to the construction work, but there is no intake facility in the downstream area. (b) In principle, drainage from the road surface is guided to the end of the stream by drainage facilities such as gutters, so there is no impact on the water source. (c) Parking / service areas are not planned in this project.
	(3) Waste	(a) Is the waste from the parking / service area properly treated and disposed of in accordance with the regulations of the country concerned?	(a) Y	(a) Waste will be treated according to the regulations of Dodoma City.
	(4) Noise and vibration	(a) Are noise and vibrations caused by passing vehicles in line with the country's standards?	(a) N	(a) Tanzania does not have specific numerical values for noise and vibration regulations. Although noise and vibration are expected to be generated with the road construction of this project, noise can be suppressed by limiting the construction time to daytime and not performing nighttime construction.
3 natural environme nt	(1) Protected area	(a) Is the site located in a protected area specified by the law or international treaty of the country concerned? Will the project affect the protected area?	(a) N	(a) The project site is not located in the protected area.
	(2) Ecosystem	(a) Does the site include primary forests, tropical natural forests, and ecologically important habitats (coral reefs, mangrove wetlands, tidal flats, etc.)? (b) Does the site include habitats of valuable species that need protection under the laws and international treaties of the country concerned? (c) If there are concerns about serious impacts on the ecosystem, are measures taken to reduce the impact on the ecosystem? (d) Are measures taken for blocking the movement routes of wildlife and livestock, dividing habitats, and traffic accidents of animals? (e) Will the destruction of forests, poaching, desertification, and dryness of wetlands due to the development of roads? Is there a risk that the alien species (which did not previously live in the area), pests, etc. may be introduced and disrupt the ecosystem? Are measures for these prepared? (f) If a road is constructed in an undeveloped area, will the natural environment be greatly damaged by the new area development?	N	(a)-(f) The project site is located in the urban area of Dodoma, and most of the vegetation and fauna are being lost or replaced due to urban development. As a result, no rare species or endangered species are found in the project site, and no impact on the ecosystem is expected.

3 natural environment	(3) Hydrology	(a) Is alteration of topography and construction of new structures such as tunnels adversely affecting the flow of surface water and groundwater?	(a) N	(a) In this project, no large-scale land alteration and land reclamation work will be carried out, so no adverse effect on surface water or groundwater flow is expected.
	(4) Topography and geology	(a) Is there a poor geological location on the route that could cause landslides or landslides? If so, are appropriate measures taken such as construction methods? (b) Is earth and sand collapse or landslide caused by civil works such as embankment and cutting? Are appropriate measures taken to prevent landslides and landslides? (c) Is soil runoff from the embankment, cut section, dump site, and sediment collection site? Are appropriate measures taken to prevent sediment outflow?	(a) N (b) N (c) Y	(a) ~ (b) In the vicinity of the planned route, it is confirmed that no steep slopes where landslides and landslides are likely to occur. (c) A large amount of soil will not accidentally run out if proper embankment is performed.
4 Social environment	(1) Resettlement	(a) Will involuntary resettlement occur with the implementation of the project? If so, will efforts be made to minimize the impact of the relocation? (b) Is adequate explanation given to resettled residents regarding compensation and livelihood reconstruction measures before resettlement? (c) Is a resettlement plan conducted, including a resettlement price compensation plan and restoration of the living infrastructure after the resettlement? (d) Is compensation paid before the transfer? (e) Is the compensation policy documented? (f) Does the resettlement plan pay particular attention to vulnerable groups, such as women, children, the elderly, the poor, ethnic minorities, and indigenous peoples? (g) Is it possible to obtain a pre-relocation agreement with the resettled residents? (h) Is a system in place to properly implement resettlement? Are sufficient implementation capabilities and budgetary measures taken? (i) Is it planned to monitor the impact of resettlement? (j) Is a complaint handling mechanism established?	(a) Y (b) Y (c) Y (d) Y (e) Y (f) Y (g) Y (h) Y (i) Y (j) Y	(a) Involuntary resettlement will occur with the implementation of this project. The construction of new roads in Section 3 will affect 43 households and 187 residents. TANROADS has already been assessed at the FS stage, and is preparing RAP. TANROADS will implement the plan before the project starts. (b) In the process of creating RAP, explanations will be given to the people affected by the project. TANROADS will explain the assistance regarding the relocation to the residents based on the RAP. (c) A socio-economic survey will be conducted in the preparation of a resettlement plan (RAP), and compensation for reacquisition prices, livelihoods and recovery of living standards will be considered. (d) According to Tanzanian law, compensation must be made prior to relocation. TANROADS will pay compensation before relocation. (e) RAP includes compensation policy. (f) A socio-economic survey is conducted at the project site in the process of preparing RAP, and the existence of such vulnerable groups is confirmed in the survey. If there are vulnerable groups, consider their needs. Special attention will be given to women, children and the elderly. (g) In the process of preparing and implementing RAP, obtain the agreement of the households affected by the project before relocation. (h) In the process of preparing RAP, an implementation system for implementing resettlement will be established. TANROADS and other related organizations will secure the resources necessary to implement RAP. (i) RAP includes a monitoring plan for its proper implementation. (j) A complaint handling mechanism is constructed in the process of creating a RAP.

(2) Life and livelihood	<p>(a) If the road is constructed by new development, is there any impact on the existing means of transportation and the lives of the residents engaged in it? Also, will there be major changes in land use and livelihoods, or will unemployment occur? Is the plan considering the mitigation of these effects?</p> <p>(b) Will the project adversely affect the lives of other residents? Will consideration be given to mitigate the impact if necessary?</p> <p>(c) Is there a risk of illness (including infectious diseases such as HIV) due to population influx from other areas? Will appropriate public health considerations be made if necessary?</p> <p>(d) Will the project adversely affect road traffic in the surrounding area (congestion, increase in traffic accidents, etc.)?</p> <p>(e) Will roads hinder the movement of residents?</p> <p>(f) Will road structures (overpasses, etc.) cause sunlight obstruction and radio interference?</p>	<p>(a) Y</p> <p>(b) Y</p> <p>(c) Y</p> <p>(d) Y</p> <p>(e) N</p> <p>(f) N</p>	<p>(a)-(b)</p> <p>The project may cause involuntary resettlement of residents and negatively affect the lives of residents. To minimize this effect, RAP will be prepared and implemented by TANROADS. Construction work can affect public access to public services and transportation. However, since the construction work is carried out in a limited place and in a short time, the degree of negative impact is not serious and is limited. The site manager will instruct the local residents to instruct the construction vehicles to pass safely.</p> <p>(c) In construction work, it is assumed that most of the workers will be hired locally and no large influx of workers is expected, so no negative impact on infectious diseases is expected. However, with some inflow of workers along the project site, it is considered necessary to raise awareness about HIV / AIDS prevention.</p> <p>(d) This plan is a project whose main purpose is to reduce traffic congestion. Consideration should be given to traffic congestion and traffic accidents during construction. In addition, it is necessary to plan safety facilities at the right places in the planned roads.</p> <p>(e) ~ (f)</p> <p>There will be no obstacles to resident movement, sunlight obstruction, and radio interference.</p>
(3) Cultural heritage	(a) Is there a possibility that the project will damage archeologically, historically, culturally, and religiously valuable heritage sites and historical sites? Also, are measures taken by the domestic law of the country concerned taken into consideration?	(a) N	(a) There are no cultural properties on or near the site.
(4) Landscape	(a) Is there any adverse effect on landscapes that require special consideration? If so, will the necessary measures be taken?	(a) N	(a) There is no landscape to be considered in the site and its surroundings.
(5) Minorities and indigenous peoples	<p>(a) Is consideration given to reducing the impact on the ethnic minorities and indigenous people's culture and lifestyle in the country concerned?</p> <p>(b) Are minority and indigenous people's rights regarding land and resources respected?</p>	N	<p>(a)-(b)</p> <p>The site is not an area where ethnic minorities or indigenous peoples with their own culture and lifestyle live.</p>

4 Social environment	(6) Working environment	<p>(a) Is the country's work environment law to be followed?</p> <p>(b) Are safety measures for the personnel involved in the project taken, such as the installation of safety equipment related to the prevention of occupational accidents and the management of harmful substances, for the personnel involved in the project?</p> <p>(c) Are intangible measures planned and implemented for people involved in the project, such as the establishment of a safety and health plan and safety training for workers (including traffic safety and public health)?</p> <p>(d) Are proper measures taken to prevent security personnel involved in the project from infringing on the safety of project personnel and local residents?</p>	<p>(a) Y</p> <p>(b) Y</p> <p>(c) Y</p> <p>(d) Y</p>	<p>(a) In accordance with relevant laws and regulations such as Occupational Health and Safety Act, 2003 and Employment and Labor Relations Act 2004, TANROADS develops Occupation Health and Safety Policy. , And ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY (ESHS) CODE OF CONDUCT for contractors have been created. This project will be conducted in accordance with these policies and guidelines.</p> <p>(b) Safety regulations, protective measures, and safety-conscious measures will be implemented during the project implementation period in accordance with the TANROADS Occupational Safety and Health Policy.</p> <p>(c) When working under a contract under the supervision of TANROADS, the contractor shall carry out daily occupational health and safety audits by the contractor to prevent accidents and other occupational accidents, and records shall be kept. .</p> <p>(d) The security guards of the project will be trained so that they can respond appropriately to the residents and related parties. This is included in the contractor's regular safety communications.</p>
5 others	(1) Impact during construction	<p>(a) Are mitigation measures prepared for pollution (noise, vibration, muddy water, dust, exhaust gas, waste, etc.) during construction?</p> <p>(b) Will the construction adversely affect the natural environment (ecosystem)? Are mitigation measures prepared for the impacts?</p> <p>(c) Will the construction negatively affect the social environment? Are mitigation measures prepared for the impacts?</p>	<p>(a) Y</p> <p>(b) N</p> <p>(c) Y</p>	<p>(a) To prevent noise and vibration generated by construction work, avoid unnecessary puffing of the accelerator during work, and avoid night work. Wastes will be collectively transported to the Dodoma City designated treatment plant for disposal. Water is regularly sprayed to reduce the dust.</p> <p>(b) No adverse effects on the ecosystem will occur.</p> <p>(c) Install safety facilities and guides as necessary so that the current traffic flow is not affected as much as possible.</p>

	(2) Monitoring	(a) Among the above environmental items, is the operator's monitoring planned / implemented for items that may have an impact? (b) How are the items, methods, frequencies, etc. of the plan defined? (c) Is the business operator's monitoring system (organization, personnel, equipment, budget, etc. and their continuity) established? (d) Is the method and frequency of reporting from the business operator to the competent authorities regulated?	(a) Y (b) Y (c) Y (d) Y	(a) In the process of environmental impact assessment, an environmental and social monitoring plan will be prepared, and this plan will be implemented by TANROADS. (b) Monitoring items, methods and frequency will be included in the environmental and social monitoring plan. According to the implementation of the project, these should be monitored at the frequency and timing set during construction and operation. (c) The Monitoring Framework will be established during the development of the Environmental and Social Monitoring Plan. (d) According to the Environmental Impact Assessment and Auditing Regulations, 2005, the National Environmental Management Council (NEMC) can be ordered to submit a monitoring report if necessary.
6 Points to keep in mind	Reference to other environmental checklists	(a) If necessary, add the relevant check items from the checklist for forestry and evaluate them (for cases involving large-scale logging). (b) If necessary, add the relevant check items from the checklist for transmission lines / distribution (e.g., when construction of transmission / transformation / distribution facilities is involved).	N	Not applicable.
	Precautions for using the environmental checklist	(a) If necessary, check the impact on trans boundary or global environmental issues. (When factors related to trans boundary waste treatment, acid rain, ozone depletion, global warming, etc. are considered)	N	Not applicable.

Source: Study Team

Note 1) Regarding the "standards of the country concerned" in the table, if there is a significant discrepancy compared with the internationally recognized standards, consider countermeasures as necessary. Items for which regulations are not currently established in the country concerned will be examined by comparison with appropriate standards outside the country (including experience in Japan).

Note 2) The environmental checklist only shows standard environmental check items, and depending on the characteristics of the business and region, it is necessary to delete or add items.

Annex 8 Environmental management and monitoring plans

Table: Environmental management / monitoring plan (draft)

Environmental items	Item	Place	Frequency	Responsible organization	Supervisory authority	Cost
<b>【Before Construction】</b>						
Authorization	<ul style="list-style-type: none"> <li>EIA acquisition status</li> <li>Compliance with EIA incidental conditions</li> </ul>	N/A	Before construction starts	TANROADS	NEMC	-
Existing infrastructure	Confirmation of redevelopment status of temporarily removed public facilities	Near construction site	Before construction starts	Contractor	TANROADS	Included in SV costs
<b>【Construction】</b>						
Air pollution	Dust and exhaust gas during construction such as NO <sub>2</sub> , NO, SO <sub>2</sub> , CO, PM10, PM2.5	Near construction site (A specific point will be decided after the construction starts)	Once a month	Contractor	TANROADS	Included in SV costs
Water pollution	Muddy water generated during construction	Near construction site	Once a month	Contractor	TANROADS	ditto
Waste	Type, amount, and treatment method of generated waste	Near construction site	Once a month	Contractor	TANROADS	ditto
Soil Contamination	Oil leaks etc. that occur when using heavy equipment	Near construction site	Once a month	Contractor	TANROADS	ditto
Noise and vibration	Influence of noise and vibration of heavy equipment on the residential area around the site during construction	Near construction site	Once a month	Contractor	TANROADS	ditto
Resettlement	Please refer to 3-8					
Regional economy such as employment and livelihood	<ul style="list-style-type: none"> <li>Implementation status of policy to prioritize employment of local residents</li> <li>Social security registration status of long-term construction workers</li> <li>Wage payment status to workers</li> <li>Retirement payments to retirees</li> </ul>	N/A	Once a month	Contractor (+Environmental experts)	TANROADS	ditto
Existing Social Infrastructure and Institution	Relocate and restore affected infrastructure / utilities.	Near construction site	Once every 6 months	TANROADS (in collaboration with public organizations such as TTCL) / MoWTC	TANROADS	ditto
Infectious diseases such as HIV / AIDS	Implementation status of HIV / AIDS preventive management program by contractors	Near construction site	Once every 6 months	Contractor (+Environmental experts)	TANROADS	ditto

Environmental items	Item	Place	Frequency	Responsible organization	Supervisory authority	Cost
Working environment (including work safety)	<ul style="list-style-type: none"> <li>Occupational health and safety management system (OHSMS) formulation and implementation status</li> <li>Installation and management status of first aid kit</li> <li>Use of personal protective equipment (PPE)</li> <li>Implementation status of regular occupational health and safety (OHS) training</li> </ul>	Near construction site	Once a month	Contractor (+Environmental experts)	TANROADS	ditto
Accidents	<ul style="list-style-type: none"> <li>Implementation status of occupational safety management plan</li> <li>Accident occurrence status</li> </ul>	Near construction site	Once a month	Contractor	TANROADS	ditto
<b>[In use]</b>						
Air pollution	Dust and exhaust gas during construction	Near construction site	Once a month	TANROADS	TANROADS	SV costs included
Water pollution	Oil leaks etc. that occur when using heavy equipment	Around the target road	Once a month	TANROADS	TANROADS	ditto
Waste	Type, amount, and treatment method of generated waste	Around the target road	Once a month	TANROADS	TANROADS	ditto
Noise and vibration	Noise and vibration due to increased traffic volume	Around the target road	Once a month	TANROADS	TANROADS	ditto
Regional economy such as employment and livelihood	Changes in the road safety situation	Around the target road	Once a month	TANROADS	TANROADS	Conducted by staff, no cost
Existing Social Infrastructure and Institution	Changes in the road safety situation	Around the target road	Once a month	TANROADS	TANROADS	ditto
Accidents	Traffic accidents due to increased traffic volume and speedup	Places with heavy traffic around the target road	Once a month	TANROADS	TANROADS	ditto

Source: ESIA report (Environmental and Social Impact Assessment Report) , Note: SV= Construction supervision



Table: Entitlement Matrix for the Dodoma Inner Ring Road

Land and Assets	Types of Impact	Person(s) Affected	Compensation/Entitlement/Benefits
Agricultural land	Loss of land rights.	Farmer/ title holder  loosing less than 20% and the rest of the land is economically viable	Provision of In-kind with land of similar qualities or higher or Cash compensation for affected land at market value costs for the lost piece of land as per the preference of the PAP; Consultations and concurrence of both spouses in the process of land acquisition and provision of compensation. Notice to harvest standing seasonal crops and compensation
		Farmer/ title holder  loosing greater than 20% and the rest of the land is not economically viable	Provision of In-kind with land of similar qualities or higher or Cash compensation for affected land at market value costs for the lost land as per the preference of the PAP; Consultations and concurrence of both spouses in the process of land acquisition and provision of compensation. Provide at least three (3) months advance notice to shift from occupied land. Cash compensation equivalent to average of last 3 years' market value for the mature and harvested crop, or market value of the crop for the remaining period of tenancy/lease agreement, whichever is greater. Cash compensation for structures and other land improvements at market value cost (if affected); Legal assistance, transaction costs for purchase such as registration, transfer taxes and/or customary fees will also be compensated for those opting for replacement land. .
		Tenant	Cash compensation for the harvest or produce from the affected land, structures and other assets owned or established by the tenant at full replacement costs.
		Squatter/informal occupant	Cash compensation for crops and trees planted by the occupant. Provision of advance notice of at least three (3) months to harvest and/or shift from the land. If the farmer without land title is classified as a vulnerable person, then additional assistance should be described in individual RAP/ARAP, and may include additional training on farming techniques, additional legal guidance on how to acquire title to land, and identification of financing options for acquiring land.
		Lease holder	Cash compensation at full replacement costs of the affected permanent crops or of the crops if seasonal crops will have to be harvested prior to maturity. Cash compensation for any unfulfilled lease prorated by the area lost.



Land and Assets	Types of Impact	Person(s) Affected	Compensation/Entitlement/Benefits
Commercial land	Loss of land	Business owner is lease holder (the person who is losing the income or business) Land used for business partially affected. Limited loss	Cash compensation for affected land at market value costs for the lost piece of land. Loss of Profit (Net profit/p.m. x 36 months) calculated based on loss by PAP. Consultations and concurrence of both spouses in the process of land acquisition and provision of compensation.
		Land used for business severely affected	Provision of In-kind or Cash compensation for affected land at market value costs for the lost land as per the preference of the PAP. Loss of Profit (Net profit/p.m. x 36 months). Cash compensation/refund of the any unfulfilled lease/rents. Support for transportation of business materials to relocation site and back to reconstructed facilities. Provide at least three (3) months advance notice to shift from occupied land. Consultations and concurrence of both spouses in the process of land acquisition and provision of compensation.
Business structure	Business structure	Owner occupied business structure owners	Choose between options such as: (i) Structure unit in chosen relocation site; (ii) Reconstruction of structure in adjacent unaffected lot or (iii) Cash compensation for the lost structure; and, Loss of profit as per the national legal requirements (Net profit/p.m. x 36 months). Consultations and concurrence of both spouses in the process of land acquisition and provision of compensation. Provide at least three (3) months' advance notice to shift from occupied property. Resettlement assistance in the form of: (a) transport allowance; (b) disturbance allowance; (c) accommodation allowance during reestablishment to new place; and, (d) livelihood development assistance (e) Legal assistance for purchase of land, transactional costs and taxes (f) Search assistance by the local land office.
		Tenant/Lessee of house	Cash compensation for affected assets (verifiable improvements to the property by the tenant); Loss of profit calculated at 36 months' net profit as per the legal requirement; Relocation assistance (costs of shifting + allowance equivalent to four months rental costs). Assistance to help find alternative rental arrangements. Livelihood Rehabilitation and Restoration assistance if required (assistance with job placement, skills training). Provide at least three (3) months advance notice to shift from occupied property.
Residential Land	Loss of portion of residential land	Owner occupied residential	Provision of options for Cash and In-kind compensation for affected land

Land and Assets	Types of Impact	Person(s) Affected	Compensation/Entitlement/Benefits
	Remaining land still viable for present use.	structure that will move - Legal (occupancy rights or residential license) holder	at market value costs with consultations and concurrence of both spouses; Provision of at least three (3) months' notice to vacate the land prior to land take; PAPs to be allowed to salvage remain of the affected property. Cash compensation for the affected structures and land improvements including trees; Resettlement assistance: (a) Legal assistance for purchase, (b) Search assistance, (c) complementary allowance for additional cost of living, (d) assistance to find alternative rental during the period of relocation.
		Owner occupied residential structure that may redevelop in the same plot - Legal (occupancy rights or residential license) holder	Cash compensation for affected land at market value costs for land acquired portion acquired; Cash compensation for the affected structures (if the whole structure will be lost) and land improvements including trees built/established and owned by the legal holder with consultations and concurrence of both spouses; If structure is affected but still usable, cash compensation for the lost section and compensation to repair the remainder of the usable structure.
		Lessee/Leaseholder	Cash compensation for any unfulfilled lease prorated by the area lost. Cash compensation at market value cost for affected structures and improvements, including economic trees, built or established and owned by the lessee. Search assistance for alternative land by linking to local government authority to allocate surveyed plots. If the renter or lease holder is classified as a vulnerable person, then additional assistance should be described in individual RAP/ARAPs and may include: additional legal guidance on terms/conditions to request in rental agreement, and identification of programs that specifically provide support to vulnerable people renting land.
		Squatter/informal settler	Cash compensation for affected structures and improvements, including economic trees, built or established and owned by the informal settler. Provide at least three (3) months' advance notice to shift from occupied land.
	Loss of all or major portion of residential land  Remaining area insufficient for continued use or becomes uneconomically viable	Legal rights/residential license holder	Option for In-kind with land of similar qualities or higher or Cash compensation lost land at market value cost; Cash compensation of affected land improvements, structures, trees, crops owned by the legal holder at full replacement cost. Salvageable materials of demolished structures and cut trees. Provide at least three (3) months' advance notice to shift from occupied land. Legal assistance, transaction costs for purchase such as registration, transfer taxes and/or customary fees

Land and Assets	Types of Impact	Person(s) Affected	Compensation/Entitlement/Benefits
		Lessee/leaseholder of land	will also be compensated for those opting for replacement land. Cash compensation/refund of the any unfulfilled lease/rents. Cash compensation for land improvements, structures (including house) and trees established and owned by the Lessee. Salvageable materials of the structure or house;
		Squatter/informal settler into the land	Cash compensation for land improvements, structures (including house) and trees established and owned by the squatter. Salvageable materials of the structure or house
House/Abodes	Physical displacement of household (loss of dwelling), Loss of rental income	Homeowners and his family and members of households	Choose between options such as: (i) Housing unit in chosen relocation site; (ii) Reconstruction of house in adjacent unaffected lot or (iii) Cash compensation for the lost house; and, Resettlement assistance in the form of: (a) transport allowance; (b) disturbance allowance; (c) accommodation allowance during reestablishment to new place; and, (d) livelihood development assistance (e) Legal assistance for purchase (c) Search assistance
		Tenant/Lessee of house	Cash compensation for affected assets (verifiable improvements to the property by the tenant). Right to salvage materials without deduction from compensation. Relocation assistance (costs of shifting + allowance equivalent to four months' rental costs). Assistance to help find alternative rental arrangements. Rehabilitation assistance if required (assistance with job placement, skills training)
		Squatter of house/structure	Cash compensation for affected structure at market value cost. Right to salvage materials without deduction from compensation. Relocation assistance (costs of shifting + assistance to find alternative secure accommodation preferably in the community of residence through involvement of the project. Alternatively, assistance to find accommodation in rental housing or in a squatter settlement scheme, if available. Rehabilitation assistance if required assistance with job placement, skills training.
Buildings and structures other than the house	Loss of structures or portions of structures other than the house	Owner of structure	Cash compensation for affected structure based on market value cost without depreciation. Right to salvageable materials of demolished structure.
Business or access to livelihood	Loss of business of livelihood source	Street vendor (informal without title or lease to the stall or shop)	Opportunity cost compensation equivalent to 2 months' net income based on tax records for previous year (or tax records from comparable business, or estimates), or the relocation allowance, whichever is higher.

Land and Assets	Types of Impact	Person(s) Affected	Compensation/Entitlement/Benefits
			Relocation assistance (costs of shifting). Assistance to obtain alternative site to re-establish the business.
		Business owners	Cash compensation for relocation cost and lost net income during the relocation period as per the national legal provisions of loss of profit allowance (Net profit/p.m. x 36 months). Alternative site within the area to continue business, transport cost where applicable, affected property where applicable, loss of business (3 months) where applicable
Seasonal crops	Loss of harvest	Verified owner of crops (whether land owner, tenant, or squatter)	No compensation. Provision of advance notice of at least three (3) months to harvest and/or shift from the land
Trees and perennial crops	Loss of trees or perennial crops	Verified owner of trees (whether landowner, tenant or squatter)	Cash compensation based on type, age and productive value of affected trees plus disturbance allowance
Temporary possession of land during construction	Interruption of economic activities	PAP (whether owner, tenant, or squatter)	Cash compensation for any loss of income, cash compensation for any temporary land possession (rental charges). Restoration of land to its original or better state.
Loss of livelihood (socially vulnerable)	Losses of any asset and disruption of lives	Vulnerable PAPs (Enumerate Categories), Household with PWDs, Single Women HH head, Poor households	Additional entitlements to be determined based on consultation with Vulnerable PAPs
Community facilities	Loss of community facility (church, halls, school, sports)	Community residents	Replacement/restoration at the cost of the project
Graves	Removal of graves	Relatives, community	Relocation or removal according to local customs and as per the provisions in the Graves removal act
Seasonal Land Users	Loss of use of land for seasonal activities	Affected persons	Assistance to help find alternative land for seasonal use

# Annex 10 Environmental and Social Monitoring Form

## <Monitoring during construction>

### 1. Permit / Explanation

Monitoring item	Monitoring results
Status of environmental permit	
Status of compliance with incidental conditions of environmental permit	

### 2. Stakeholder consultation

No.	Stakeholder consultation date	Participants (affiliation, number of participants)	Agenda / Comments from participants	Action Items
1				
2				
3				

### 3. Resettlement

#### Compensation payment

Target area	Total number of plans (number of households HHs) (A)	Number of households that have received compensation (HHs) (B)	Progress rate % (B/A x 100)
Section 3a			

#### Implementation of relocation

Target area	Total number of planned relocations (number of households HHs) (A)	Number of relocated households (HHs) (B)	Progress rate % (B/A x 100)
Section 3a			

#### Others

Item	Monitoring results
Grievance procedure	
Restoration of livelihood	
Relocation site	

### 4. Waste

Item	Content	Type of waste	Amount generated (Monthly)	Processing method	Contractor
Waste disposal	Check the validity of waste treatment				



5. Noise and vibration

Item	Content	Measurement item	Measured value	Measured value before construction	Measurement location / frequency
Noise and vibration	During construction, check the effects of noise and vibration from construction vehicles, etc.	Noise and vibration situation Interview with local residents			Measurement place: Construction site Frequency: When loading large truck and operating large machine

6. Local economy: employment and means of livelihood, etc.

Item	Monitoring period	Monitoring results
Implementation status of policies that prioritize the employment of local residents		
Social security registration status of long-term construction workers		
Status of wage payments to workers		
Status of payment of retirement allowances to retirees		

7. Existing Social Infrastructure and Institution

Item	Monitoring period	Monitoring results
Relocation and restoration of affected infrastructure / utilities		

8. HIV/AIDS and diseases

Item	Monitoring period	Monitoring results
Implementation status of HIV / AIDS preventive management programs by contractors		

9. Working Condition (including safety)

Item	Monitoring period	Monitoring results
Formulation and implementation status of occupational safety and health (OH & S) management plan		
First aid kit installation and management status		
Usage of personal protective equipment (PPE)		
Occupational Safety and Health (OH & S) Regular Training Implementation Status		

#### 10. Accidents

Item	Monitoring period	Monitoring results
Implementation status of occupational safety management plan		
Accident occurrence status (number, location, accident content, response status)		

#### <In-service monitoring>

##### 1. Waste

Item	Content	Type of waste	Amount generated (Monthly)	Processing method	Contractor
Waste disposal	Check the validity of waste treatment				

##### 2. Noise and vibration

Item	Content	Measurement item	Measured value	Measured value before construction	Measurement location / frequency
Noise and vibration	During construction, check the effects of noise and vibration from construction vehicles, etc.	Noise and vibration situation Interview with local residents			

##### 3. Local economy: employment and means of livelihood, etc.

Item	Monitoring period	Monitoring results
Changes in the road safety situation (Visual inspection, interviewing neighbors.)		

##### 4. Existing Social Infrastructure and Institution

Item	Monitoring period	Monitoring results
Changes in the road safety situation (Visual inspection, interviewing neighbors.)		

##### 5. Accidents

Item	Fulfillment status	Frequency
Traffic control status, security system, accident prevention measures		Every 6 months

## Appendix 5: Technical Note for the Project

The Preparatory Survey on the Project for Construction of DODOMA City Inner Ring Road  
Japan International Cooperation Agency (JICA) Survey Team

### Memorandum

30 March, 2020

**Subject: Technical Note of Design Value to be used for Preparatory Survey on The Project for Construction of Dodoma City Inner Ring Road**

The JICA Preparatory Survey Team will propose the following principal standard for the design of captioned project.

Table: Proposed Road Design Parameter

Item		Description	Ref. Standard
Target road section		Approx. 6.5 km Start: Bahi Roundabout (R/A) – Imagi R/A – Makulu R/A	
Road Type		Trunk Road Class A	Road Geometric Design Manual 2011, Ministry of Works
Design Class		Design Class 4	
Design speed		60 ~ 80 km/hr	
Number of lanes		2 Nos.	
Carriageway width		3.25~3.5m/ lane, 2 directions	
Shoulder width		1.0~2.0 m	
Central reserve width		14.0 m	
Service road width		5.0 m (including footpaths)	
Maximum cross fall		2.5%	
Maximum grade		5% ~ 4%	
Minimum radius of curves		150 m ~ 300 m	
Embankment slopes	Less than 1.0 m	1:4	
	1.0 to 3.0	1:2	
	Greater than 3.0	1:1.5	
Excavation slopes	Hard Rock	1:1 ~ 4:1	
	Decomposed rock and compacted soils	1:1 ~ 1:2	
	Ordinary soils	1:1.2~1.5	
Pavement design life		20 years	
Pavement structures	Carriageways	Wearing/ Binder: AC Base: DBM40 Sub Base: C1	Pavement and Material Design Manual 1999- MOW, Interim Guideline for the Design of Hot Mix Asphalt, MOWTC 2018, Standard Specifications for Road Works 2000 – MOW, Central Materials Laboratory Testing Manual, 2000- MOW
	Service roads	Wearing: AC Base: Crushed material (CRS) Sub Base: G45	
	Bus Stops	Concrete	AASHTO



Return periods for drainage	Major culverts	25 years	Hydrology and Hydraulics: TRRL East Africa Flood Modal / SANRAL Drainage Manual (2013)
	Minor culverts	10 years	
	Side drainage	5 years	
Drainage structures	Transversal	Concrete culvert (box, pipe)	
	Road side	Concrete ditch (U type with covers, concrete lining type)	
	Access/Entrance	Concrete ditch (culvert type, U type with covers, slab type)	

**Note:**

**(1) Right of Way (RoW) / Road reserve width**

Bahi to Imagi	(Approx. 3.4 km) = 60.0 m
Imagi to Ntyuka	(Approx. 1.0 km) = 40.0 m
Ntyuka to Makulu	(Approx. 2.2 km) = 60.0 m

**(2) Junction**

- 1) Bahi Junction: at 0.0km: At grade, Roundabout type
- 2) Kikuyu Junction: at 2.2km: At grade, Roundabout type
- 3) Imagi Junction: at 3.4km: At grade, Roundabout type
- 4) Ntyuka Junction: at 4.4km: At grade, Roundabout type
- 5) Makulu Junction: at 6.5km: At grade, Roundabout type

**(3) Safety facilities**

- Street light For along the target road will be studied (connection to the existing power line will be excluded)
- Ancillaries Traffic sign, delineator, New jersey type barrier

**(4) Alignment**

- 1) Review F/S (August 2019) alignment
- 2) The alignment from section approx.. 970m eastward from Ntyuka Junction to Makulu Junction needs to be offset approx. 200m to the west of the SGR alignment. Furthermore, it is necessary to avoid large-scale buildings under construction and Planned for construction.

**(4) Social and Environmental Consideration**

**1) Removal and Relocation**

**i) Public Utilities (Water (pipe and related facilities), electric, telephone, sewage line)**

Relocation of public utilities which affected along-side of the ring road shall be finished before the expected PQ on June 2021 by TANROADS..

**ii) Private properties**

Removal of existing private properties (wall, plants, etc.) required within the RoW shall be finished before the PQ on June 2021 by TANROADS..

**2) Environmental permission**

Environmental permission obtained in Feb./2020, for target road section required.

Note: AC=Asphaltic concrete, R/A=round about, F/S= Draft Feasibility Studies and Preliminary Design (Aug 2019)



Eng. Patrick A. L. Mfugale  
The Chief Executive  
Tanzania National Roads Agency  
The United Republic of Tanzania



Hideaki MORITA  
The Chief Consultant of JICA Survey Team  
INGEROSEC CORPORATION

## Appendix 6: Meeting attendants list for 5th/Mar./2020 at TANRAODS Dodoma office

### 1. Purpose of the meeting

Just before the end of the 1st field survey conducted in November 2019, there was a request from the Tanzanian stakeholders to make a new route near the end of the target road. In March 2020, an additional survey was conducted on the approximately 1km section of the new route, the results were shared by the parties concerned, and the area for the new route road was confirmed at the site.

Affiliation and position	Name
<b>Ministry of Works, Transport and Communications (MoWTC)</b>	
Assist. Director, Urban Road	Eng. Mollel
<b>Tanzania National Roads Agency (TANROADS) Dodoma</b>	
Project Engineer	Eng. Lema
Head of Planning Unit	Eng. Cyprian H. K. Lubida
Engineer of Planning Unit	Eng. Magesa Reuben
<b>Tanzania Rural and Urban Roads Agency (TARURA)</b>	
Senior Engineer	Mr. Majuto
<b>Dodoma City Council (DCC)</b>	
Town Planner	Ms. Aisha Masanja
JICA survey Team	
Chief Consultant	Mr. Hideaki Morita

## Appendix 7: Environmental Monitoring Form and Environmental Checklist

### (1) Environmental Monitoring Form

Based on the monitoring plan, the proposed monitoring form for this project is shown below.

< Monitoring during construction >

#### 1. Permit / Explanation

Monitoring item	Monitoring results
Status of environmental permit	
Status of compliance with incidental conditions of environmental permit	

#### 2. Stakeholder consultation

No.	Stakeholder consultation date	Participants (affiliation, number of participants)	Agenda / Comments from participants	Action Items
1				
2				
3				

#### 3. Resettlement

Compensation payment

Target area	Total number of plans (number of households HHs) (A)	Number of households that have received compensation (HHs) (B)	Progress rate % (B/A x 100)
Section 3a			

Implementation of relocation

Target area	Total number of planned relocations (number of households HHs) (A)	Number of relocated households (HHs) (B)	Progress rate % (B/A x 100)
Section 3a			

Others

Item	Monitoring results
Grievance procedure	
Restoration of livelihood	
Relocation site	

#### 4. Waste

Item	Content	Type of waste	Amount generated (Monthly)	Processing method	Contractor
Waste disposal	Check the validity of waste treatment				

#### 5. Noise, Vibration, Air and Water quality

Item	Content	Measurement item	Measured	Measured	Measurement
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			value	value before construction	location / frequency
Noise and vibration	During construction, check the effects of noise and vibration from construction vehicles, etc.	Noise and vibration situation Interview with local residents	dB (Example Japan: Area facing the road 65 dB or less)		Measurement place: Construction site (Measurement before the start of construction and monthly during construction) Frequency: When loading large truck and operating large machine
Air and water quality	Check the impact of construction	Dust / oil leak	mg/m <sup>3</sup> (Standard value 0.1mg/m <sup>3</sup> )		Near construction site. At the start of construction and once a month

6. Local economy: employment and means of livelihood, etc.

Item	Monitoring period	Monitoring results
Implementation status of policies that prioritize the employment of local residents		
Social security registration status of long-term construction workers		
Status of wage payments to workers		
Status of payment of retirement allowances to retirees		

7. Existing Social Infrastructure and Institution

Item	Monitoring period	Monitoring results
Relocation and restoration of affected infrastructure / utilities		

8. HID/AIDS and diseases

Item	Monitoring period	Monitoring results
Implementation status of HIV / AIDS preventive management programs by contractors		

9. Working Condition (including safety)

Item	Monitoring period	Monitoring results
Formulation and implementation status of occupational safety and health (OH & S) management plan		
First aid kit installation and management status		
Usage of personal protective equipment (PPE)		
Occupational Safety and Health		

(OH & S) Regular Training Implementation Status		
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#### 10. Accidents

Item	Monitoring period	Monitoring results
Implementation status of occupational safety management plan		
Accident occurrence status (number, location, accident content, response status)		

#### < In-service monitoring >

##### 1. Waste

Item	Content	Type of waste	Amount generated (Monthly)	Processing method	TANROADS
Waste disposal	Check the validity of waste treatment				

##### 2. Noise and vibration

Item	Content	Measurement item	Measured value	Measured value before construction	Measurement location / frequency
Noise and vibration	During construction, check the effects of noise and vibration from construction vehicles, etc.	Noise and vibration situation Interview with local residents	dB (Example Japan: Area facing the road 65 dB or less)		

##### 3. Local economy: employment and means of livelihood, etc.

Item	Monitoring period	Monitoring results
Changes in the road safety situation (Visual inspection, interviewing neighbors.)		

##### 4. Existing Social Infrastructure and Institution

Item	Monitoring period	Monitoring results
Changes in the road safety situation (Visual inspection, interviewing neighbors.)		

##### 5. Accidents

Item	Fulfilment status	Frequency
Traffic control status, security system, accident prevention measures		Every 6 months

## A-86

Category	Environmental Item	Main Check Items	Yes: Y No: N	Specific environmental and social considerations (Reason for Yes / No, basis, mitigation measures, etc.)
1. Permits and Explanation	(1)EIA and Environmental Permits	(a) Have EIA reports been officially completed?	(a) Y	(a) A draft EIA report was prepared in February 2020. According to the “Environmental Impact Assessment and Audit Regulations, 2005,” which is defined under the “Environmental Management Act, No. 20 of 2004,” The project is included in the scope of the business list (the First Schedule, Mandatory list A, 9- (i)) that requires environmental impact assessment, and it is required to carry out full-scale environmental impact assessment (EIA). TANROADS secured the budget necessary for the implementation of EIA, conducted an EIA survey and prepared an EIA report.
		(b) Have EIA reports been approved by authorities of the host country’s government?	(b) N	(b) TANROADS is expected to submit the prepared EIA report to NEMC and obtain EIA license from the Minister for Environment.
		(c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied?	(c) N	(c) See (b).
		(d) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country’s government?	(d) Y	(d) It is necessary to obtain the following permits and approvals. Land use permit of about 1km at the end point: TANROADS has received a land use permit from the related land owner in Mar., 2020.
	(2) Explanation to local stakeholders	a) Are the contents and impact of the project properly explained to local stakeholders, including information disclosure, and understood? (b) Were the comments from the residents reflected in the project contents?	(a) Y	(a) In accordance with Section 178 of the Environmental Management Act 2004 and Section 17 of the Environmental Impact Assessment and Auditing Regulations, TANROADS confirmed the stakeholders involved in the project and conducted stakeholder consultations during the EIA process. Stakeholder consultations will be conducted at (1) scoping, (2) detailed investigation stage of EIA report preparation, (3) EIA report review stage, and (4) EIA report disclosure. Discussions with the following stakeholders are conducted in the EIA process. <ul style="list-style-type: none"> <li>· Municipal Authorities</li> <li>· Dodoma City Hall (DCC)</li> <li>· Dodoma Urban Water Supply and Sanitation Agency (DUWASA)</li> <li>· Tanzania Power Supply Company (TANESCO)</li> <li>· Tanzania Communications Corporation (TTCL)</li> <li>· Local residents</li> </ul>

			(b) Y	<p>In addition, the EIA report is open to the public. The EIA report is published based on the Environmental Management Act, 2004 (the Environmental Management Act, No. 20 of 2004) and the Environmental Impact Assessment and Audit Regulations (2005). (NEMC) plays that role.</p> <p>(b) Comments made by residents and others in the stakeholder consultations conducted during the EIA process are reflected in the Environmental and Social Management Program (ESMP) and the Environmental Monitoring Plans (EMP).</p>
	(3) Examination of alternatives	(a) Have multiple alternatives to the project plan been considered (including items related to the environment and society during the study)?	(a) Y	<p>(a) In order to reduce the negative impact on the environment and society including the land acquisition and resettlement and reduce the project cost, in order to maximize the outcome of the project, the initial request, the alternative plan, plan not to carry out the project were compared</p> <p><input type="checkbox"/> Alternatives proposed by the study team</p> <p><input type="checkbox"/> Draft initial request from TANROADS</p> <p><input type="checkbox"/> Plan not to implement the project</p> <p>Plan not to carry out the project does not correct the current traffic congestion in the city. On the other hand, the initial request from TANROADS is expected to cause a large number of resettlement in Section 3. The alternatives proposed by the study team are most recommended because the scale of resettlement is smaller than the initial request.</p>
2 Countermeasures against pollution	(1) Air quality	<p>(a) Is there any effect from air pollutants emitted from vehicles that pass by? Is it consistent with the environmental standards of the country concerned?</p> <p>(b) If the air pollution status near the route is already above the environmental standard, will the project further worsen the air pollution? Are measures taken for air quality?</p>	<p>(a) Y</p> <p>(b) Y</p>	<p>(a) ~ (b)</p> <p>Although air pollutants will not be emitted, dust will be generated during construction due to large vehicles for construction, so water sprinkling will be implemented.</p>
	(2) Water quality	<p>(a) Is the quality of water in the downstream water area deteriorated due to soil runoff from exposed topsoil such as embankments and cuts?</p> <p>(b) Is the runoff drainage from the road surface polluting groundwater and other water sources?</p> <p>(c) Is the drainage from the parking / service area, etc. consistent with the country's emission standards? In addition, will the discharge produce water bodies that are inconsistent with the environmental standards of the country concerned?</p>	<p>(a) N</p> <p>(b) N</p> <p>(c) N</p>	<p>(a) Large-scale topographical changes and earthworks will not be carried out because the roads will be improved. Turbid water will be generated due to the construction work, but there is no intake facility in the downstream area.</p> <p>(b) In principle, drainage from the road surface is guided to the end of the stream by drainage facilities such as gutters, so there is no impact on the water source.</p> <p>(c) Parking / service areas are not planned in this project.</p>
	(3) Waste	(a) Is the waste from the parking / service area properly treated and disposed of in accordance with the regulations of the country concerned?	(a) Y	(a) Waste will be treated according to the regulations of Dodoma City.
	(4) Noise and vibration	(a) Are noise and vibrations caused by passing vehicles in line with the country's standards?	(a) N	(a) Tanzania does not have specific numerical values for noise and vibration regulations. Although noise and vibration are expected to be generated with the

				road construction of this project, noise can be suppressed by limiting the construction time to daytime and not performing nighttime construction.
3 natural environment	(1) Protected area	(a) Is the site located in a protected area specified by the law or international treaty of the country concerned? Will the project affect the protected area?	(a) N	(a) The project site is not located in the protected area.
	(2) Ecosystem	(a) Does the site include primary forests, tropical natural forests, and ecologically important habitats (coral reefs, mangrove wetlands, tidal flats, etc.)? (b) Does the site include habitats of valuable species that need protection under the laws and international treaties of the country concerned? (c) If there are concerns about serious impacts on the ecosystem, are measures taken to reduce the impact on the ecosystem? (d) Are measures taken for blocking the movement routes of wildlife and livestock, dividing habitats, and traffic accidents of animals? (e) Will the destruction of forests, poaching, desertification, and dryness of wetlands due to the development of roads? Is there a risk that the alien species (which did not previously live in the area), pests, etc. may be introduced and disrupt the ecosystem? Are measures for these prepared? (f) If a road is constructed in an undeveloped area, will the natural environment be greatly damaged by the new area development?	N	(a)-(f) The project site is located in the urban area of Dodoma, and most of the vegetation and fauna are being lost or replaced due to urban development. As a result, no rare species or endangered species are found in the project site, and no impact on the ecosystem is expected.
3 natural environment	(3) Hydrology	(a) Is alteration of topography and construction of new structures such as tunnels adversely affecting the flow of surface water and groundwater?	(a) N	(a) In this project, no large-scale land alteration and land reclamation work will be carried out, so no adverse effect on surface water or groundwater flow is expected.
	(4) Topography and geology	(a) Is there a poor geological location on the route that could cause landslides or landslides? If so, are appropriate measures taken such as construction methods? (b) Is earth and sand collapse or landslide caused by civil works such as embankment and cutting? Are appropriate measures taken to prevent landslides and landslides? (c) Is soil runoff from the embankment, cut section, dump site, and sediment collection site? Are appropriate measures taken to prevent sediment outflow?	(a) N (b) N (c) Y	(a) ~ (b) In the vicinity of the planned route, it is confirmed that no steep slopes where landslides and landslides are likely to occur. (c) A large amount of soil will not accidentally run out if proper embankment is performed.
4 Social environment	(1) Resettlement	(a) Will involuntary resettlement occur with the implementation of the project? If so, will efforts be made to minimize the impact of the relocation?	(a) Y	(a) Involuntary resettlement will occur with the implementation of this project. The construction of new roads in Section 3 will affect 43 households and 187 residents. TANROADS has already been assessed at the FS stage, and is preparing RAP. TANROADS will implement the plan before the project starts.
		(b) Is adequate explanation given to resettled residents regarding compensation and livelihood reconstruction measures before resettlement? (c) Is a resettlement plan conducted, including a resettlement price compensation plan and restoration of the living infrastructure after the resettlement? (d) Is compensation paid before the transfer?	(b) Y	(b) In the process of creating RAP, explanations will be given to the people affected by the project. TANROADS will explain the assistance regarding the relocation to the residents based on the RAP.



	(2) Life and livelihood	<p>(e) Is the compensation policy documented?</p> <p>(f) Does the resettlement plan pay particular attention to vulnerable groups, such as women, children, the elderly, the poor, ethnic minorities, and indigenous peoples?</p> <p>(g) Is it possible to obtain a pre-relocation agreement with the resettled residents?</p> <p>(h) Is a system in place to properly implement resettlement? Are sufficient implementation capabilities and budgetary measures taken?</p> <p>(i) Is it planned to monitor the impact of resettlement?</p> <p>(j) Is a complaint handling mechanism established?</p>	<p>(c) Y</p> <p>(d) Y</p> <p>(e) Y</p> <p>(f) Y</p> <p>(g) Y</p> <p>(h) Y</p> <p>(i) Y</p> <p>(j) Y</p>	<p>(c) A socio-economic survey will be conducted in the preparation of a resettlement plan (RAP), and compensation for reacquisition prices, livelihoods and recovery of living standards will be considered.</p> <p>(d) According to Tanzanian law, compensation must be made prior to relocation. TANROADS will pay compensation before relocation.</p> <p>(e) RAP includes compensation policy.</p> <p>(f) A socio-economic survey is conducted at the project site in the process of preparing RAP, and the existence of such vulnerable groups is confirmed in the survey. If there are vulnerable groups, consider their needs. Special attention will be given to women, children and the elderly.</p> <p>(g) In the process of preparing and implementing RAP, obtain the agreement of the households affected by the project before relocation.</p> <p>(h) In the process of preparing RAP, an implementation system for implementing resettlement will be established. TANROADS and other related organizations will secure the resources necessary to implement RAP.</p> <p>(i) RAP includes a monitoring plan for its proper implementation.</p> <p>(j) A complaint handling mechanism is constructed in the process of creating a RAP.</p>
		<p>(a) If the road is constructed by new development, is there any impact on the existing means of transportation and the lives of the residents engaged in it? Also, will there be major changes in land use and livelihoods, or will unemployment occur? Is the plan considering the mitigation of these effects?</p> <p>(b) Will the project adversely affect the lives of other residents? Will consideration be given to mitigate the impact if necessary?</p> <p>(c) Is there a risk of illness (including infectious diseases such as HIV) due to population influx from other areas? Will appropriate public health considerations be made if necessary?</p> <p>(d) Will the project adversely affect road traffic in the surrounding area (congestion, increase in traffic accidents, etc.)?</p> <p>(e) Will roads hinder the movement of residents?</p> <p>(f) Will road structures (overpasses, etc.) cause sunlight obstruction and radio interference?</p>	<p>(a) Y</p> <p>(b) Y</p> <p>(c) Y</p> <p>(d) Y</p>	<p>(a)-(b)</p> <p>The project may cause involuntary resettlement of residents and negatively affect the lives of residents. To minimize this effect, RAP will be prepared and implemented by TANROADS. Construction work can affect public access to public services and transportation. However, since the construction work is carried out in a limited place and in a short time, the degree of negative impact is not serious and is limited. The site manager will instruct the local residents to instruct the construction vehicles to pass safely.</p> <p>(c) In construction work, it is assumed that most of the workers will be hired locally and no large influx of workers is expected, so no negative impact on infectious diseases is expected. However, with some inflow of workers along the project site, it is considered necessary to raise awareness about HIV / AIDS prevention.</p> <p>(d) This plan is a project whose main purpose is to reduce traffic congestion. Consideration should be given to traffic congestion and traffic accidents during construction. In addition, it is necessary to plan safety facilities at the right places in the planned roads.</p>

			(e) N (f) N	(e) ~ (f) There will be no obstacles to resident movement, sunlight obstruction, and radio interference.
	(3) Cultural heritage	(a) Is there a possibility that the project will damage archeologically, historically, culturally, and religiously valuable heritage sites and historical sites? Also, are measures taken by the domestic law of the country concerned taken into consideration?	(a) N	(a) There are no cultural properties on or near the site.
	(4) Landscape	(a) Is there any adverse effect on landscapes that require special consideration? If so, will the necessary measures be taken?	(a) N	(a) There is no landscape to be considered in the site and its surroundings.
	(5) Minorities and indigenous peoples	(a) Is consideration given to reducing the impact on the ethnic minorities and indigenous people's culture and lifestyle in the country concerned? (b) Are minority and indigenous people's rights regarding land and resources respected?	N	(a)-(b) The site is not an area where ethnic minorities or indigenous peoples with their own culture and lifestyle live.
4 Social environment	(6) Working environment	(a) Is the country's work environment law to be followed? (b) Are safety measures for the personnel involved in the project taken, such as the installation of safety equipment related to the prevention of occupational accidents and the management of harmful substances, for the personnel involved in the project? (c) Are intangible measures planned and implemented for people involved in the project, such as the establishment of a safety and health plan and safety training for workers (including traffic safety and public health)? (d) Are proper measures taken to prevent security personnel involved in the project from infringing on the safety of project personnel and local residents?	(a) Y  (b) Y  (c) Y  (d) Y	(a) In accordance with relevant laws and regulations such as Occupational Health and Safety Act, 2003 and Employment and Labor Relations Act 2004, TANROADS develops Occupation Health and Safety Policy. , And ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY (ESHS) CODE OF CONDUCT for contractors have been created. This project will be conducted in accordance with these policies and guidelines.  (b) Safety regulations, protective measures, and safety-conscious measures will be implemented during the project implementation period in accordance with the TANROADS Occupational Safety and Health Policy.  (c) When working under a contract under the supervision of TANROADS, the contractor shall carry out daily occupational health and safety audits by the contractor to prevent accidents and other occupational accidents, and records shall be kept. .  (d) The security guards of the project will be trained so that they can respond appropriately to the residents and related parties. This is included in the contractor's regular safety communications.

5 others	(1) Impact during construction	(a) Are mitigation measures prepared for pollution (noise, vibration, muddy water, dust, exhaust gas, waste, etc.) during construction? (b) Will the construction adversely affect the natural environment (ecosystem)? Are mitigation measures prepared for the impacts? (c) Will the construction negatively affect the social environment? Are mitigation measures prepared for the impacts?	(a) Y  (b) N (c) Y	(a) To prevent noise and vibration generated by construction work, avoid unnecessary puffing of the accelerator during work, and avoid night work. Wastes will be collectively transported to the Dodoma City designated treatment plant for disposal. Water is regularly sprayed to reduce the dust. (b) No adverse effects on the ecosystem will occur. (c) Install safety facilities and guides as necessary so that the current traffic flow is not affected as much as possible.
	(2) Monitoring	(a) Among the above environmental items, is the operator's monitoring planned / implemented for items that may have an impact? (b) How are the items, methods, frequencies, etc. of the plan defined? (c) Is the business operator's monitoring system (organization, personnel, equipment, budget, etc. and their continuity) established? (d) Is the method and frequency of reporting from the business operator to the competent authorities regulated?	(a) Y  (b) Y  (c) Y  (d) Y	(a) In the process of environmental impact assessment, an environmental and social monitoring plan will be prepared, and this plan will be implemented by TANROADS. (b) Monitoring items, methods and frequency will be included in the environmental and social monitoring plan. According to the implementation of the project, these should be monitored at the frequency and timing set during construction and operation. (c) The Monitoring Framework will be established during the development of the Environmental and Social Monitoring Plan. (d) According to the Environmental Impact Assessment and Auditing Regulations, 2005, the National Environmental Management Council (NEMC) can be ordered to submit a monitoring report if necessary.
6 Points to keep in mind	Reference to other environmental checklists	(a) If necessary, add the relevant check items from the checklist for forestry and evaluate them (for cases involving large-scale logging). (b) If necessary, add the relevant check items from the checklist for transmission lines / distribution (e.g., when construction of transmission / transformation / distribution facilities is involved).	N	Not applicable.
	Precautions for using the environmental checklist	(a) If necessary, check the impact on trans boundary or global environmental issues. (When factors related to trans boundary waste treatment, acid rain, ozone depletion, global warming, etc. are considered)	N	Not applicable.

Source: Study Team

Note 1) Regarding the “standards of the country concerned” in the table, if there is a significant discrepancy compared with the internationally recognized standards, consider countermeasures as necessary. Items for which regulations are not currently established in the country concerned will be examined by comparison with appropriate standards outside the country (including experience in Japan).

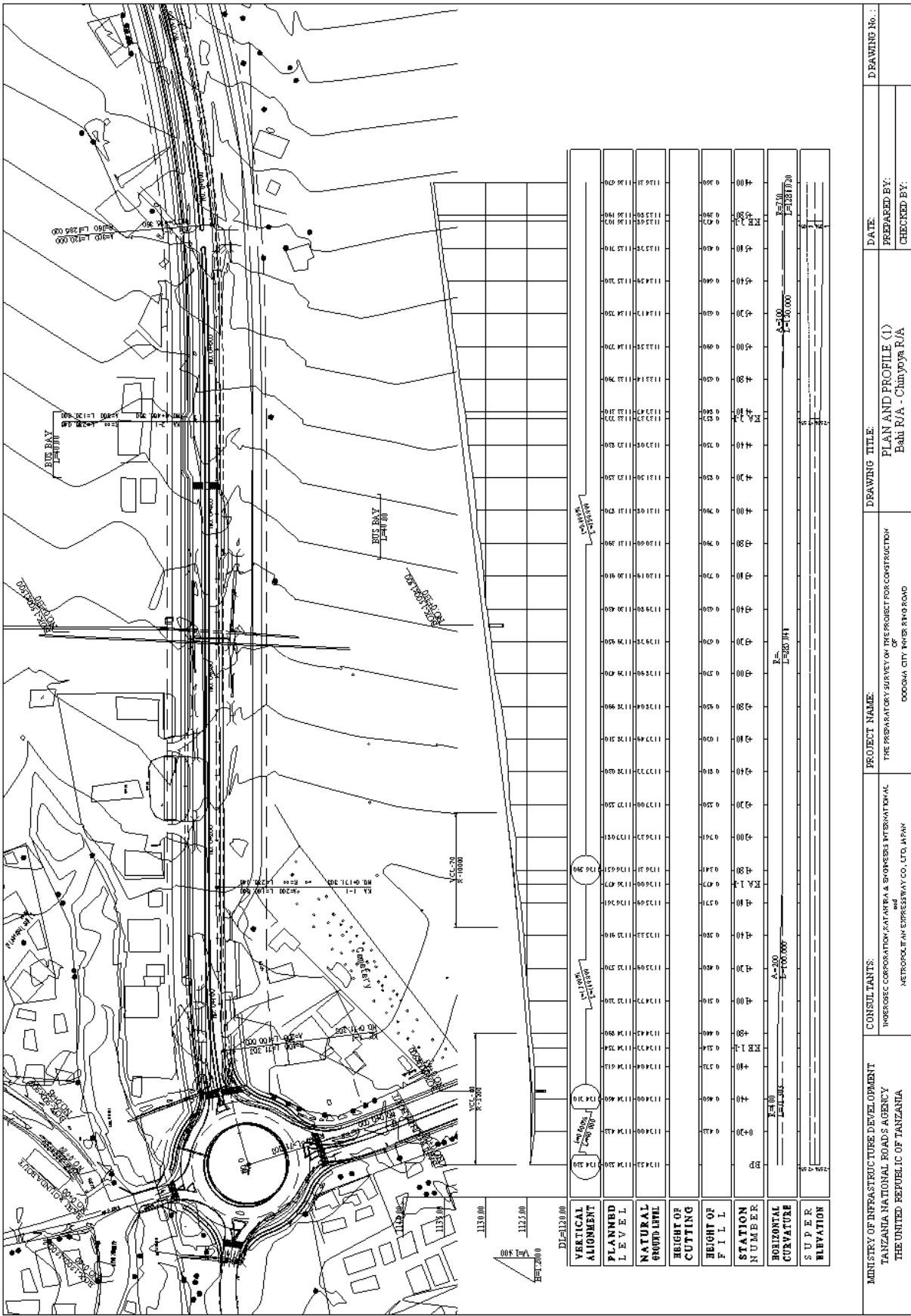
Note 2) The environmental checklist only shows standard environmental check items, and depending on the characteristics of the business and region, it is necessary to delete or add items.

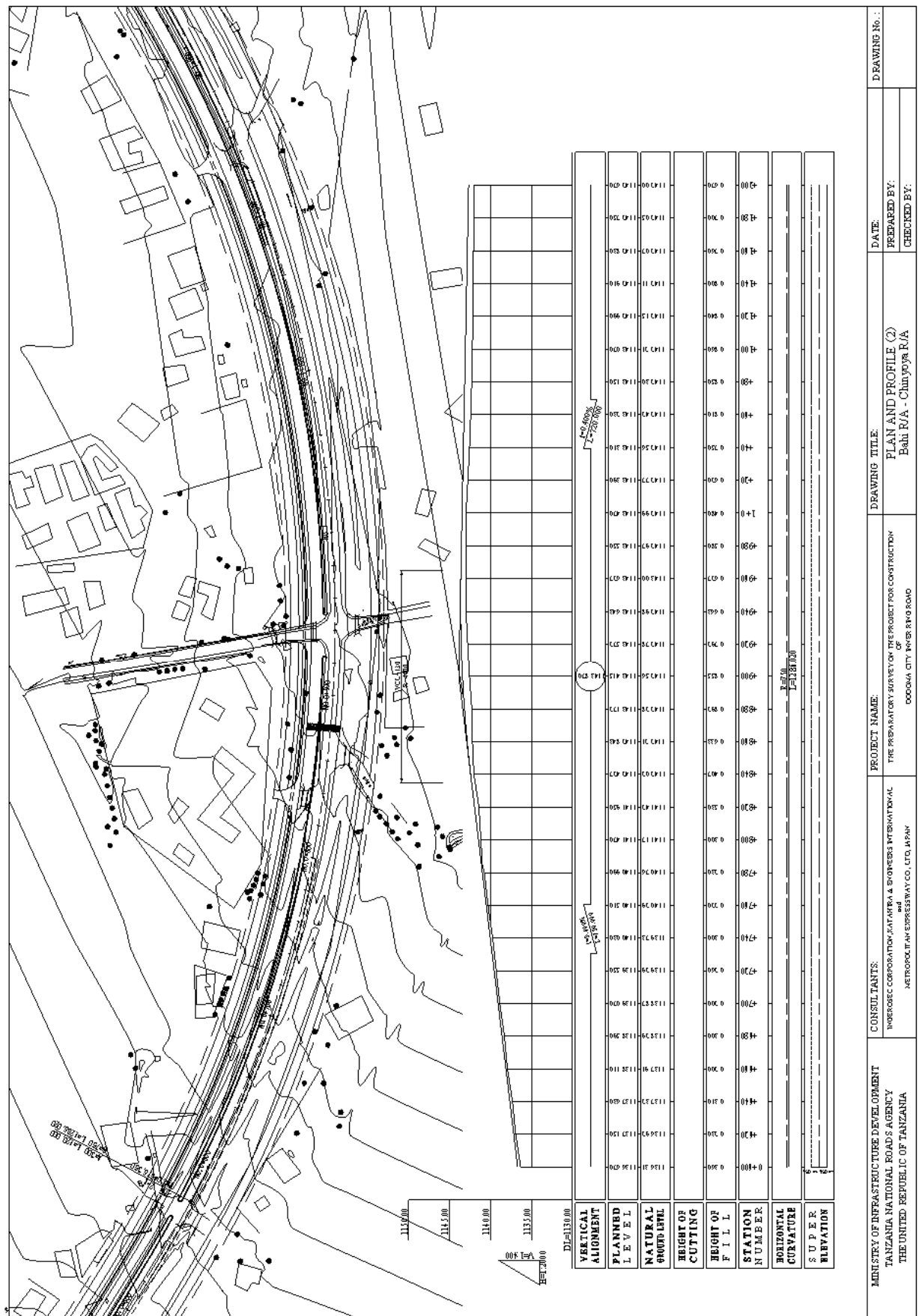
## Appendix 8: Other Documents (Outline Design Drawings)

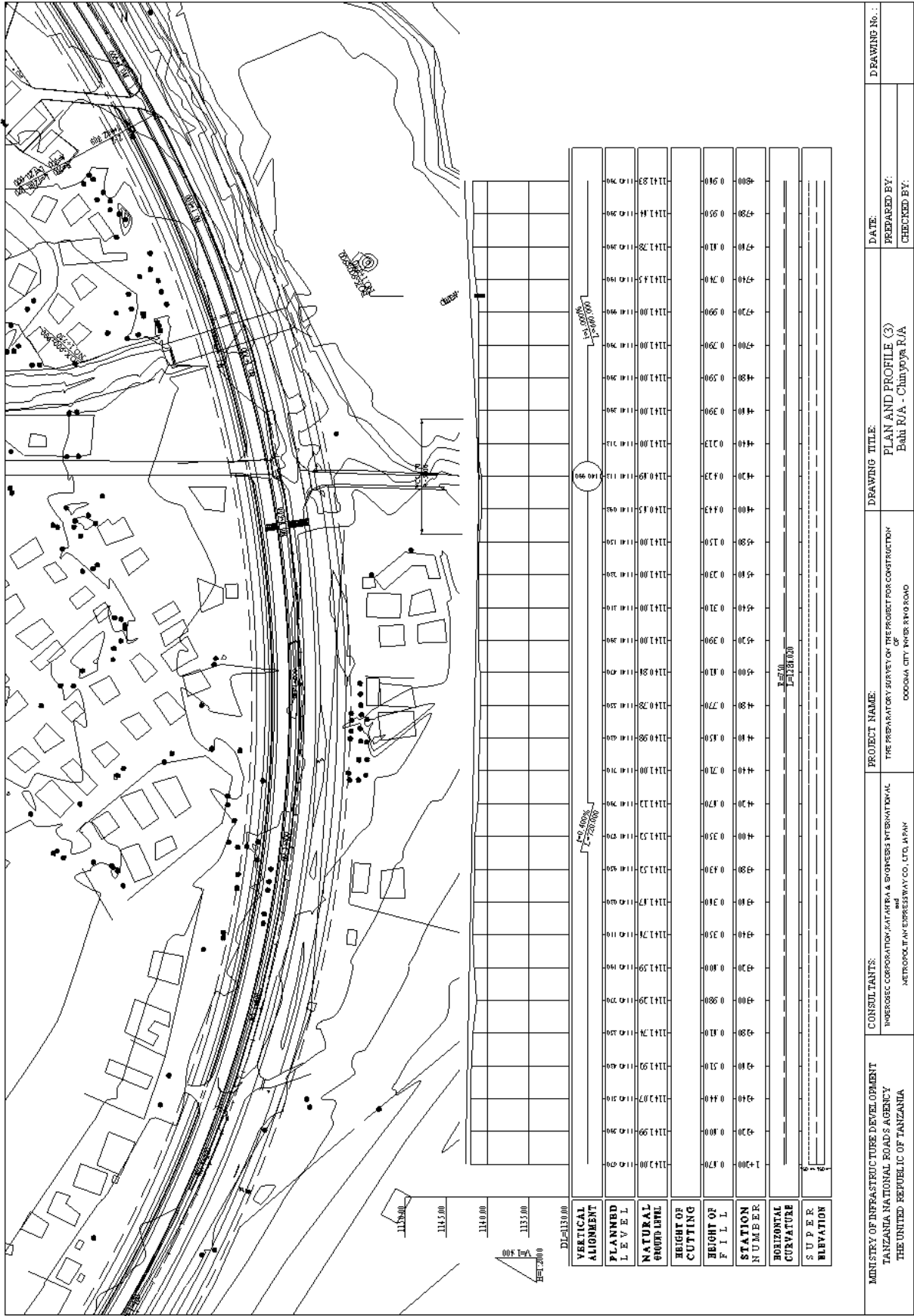
### List of Basic design drawing

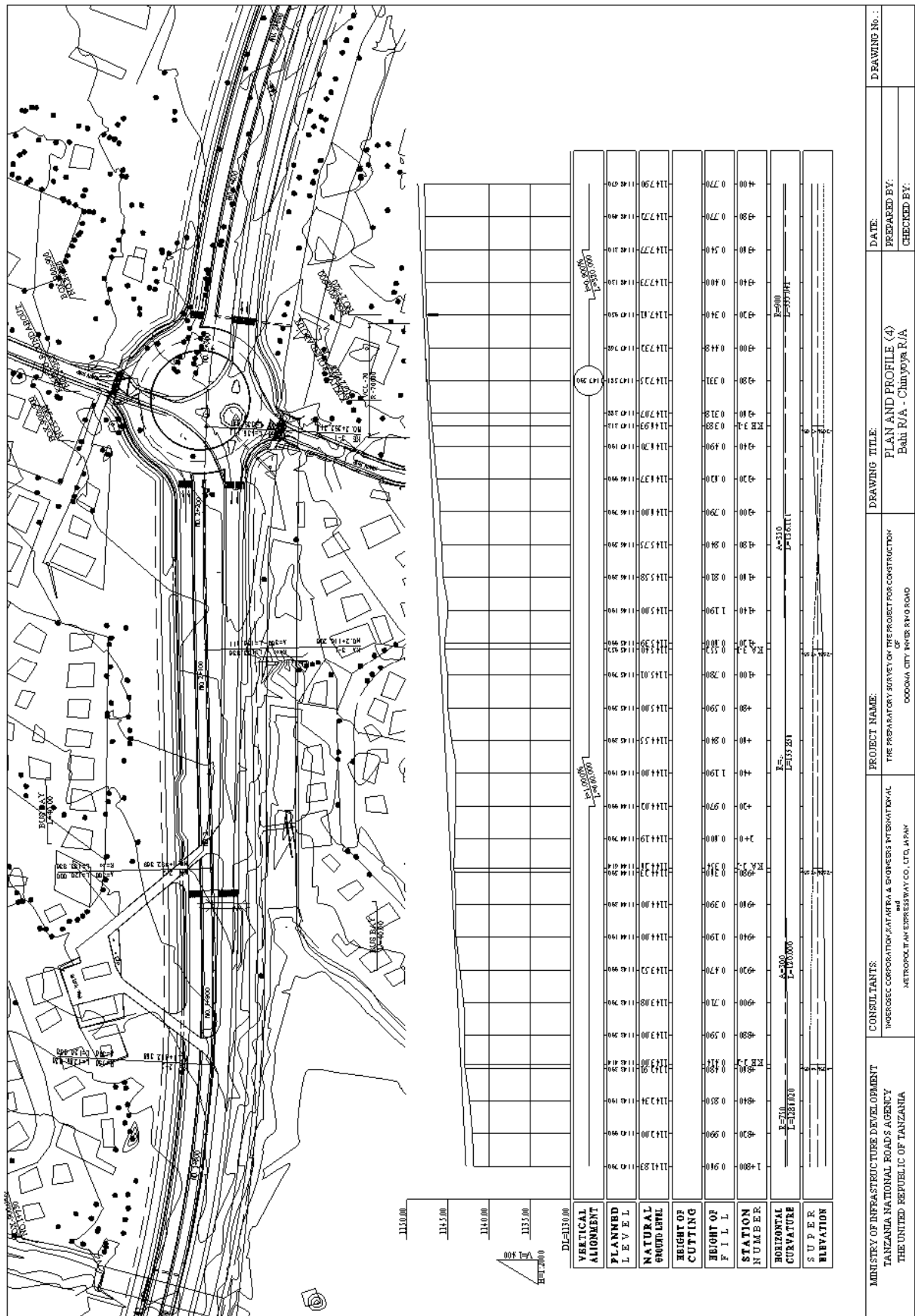
Item	Contents of drawing	Number of drawing
1	Road standard cross section, road plan and profile	13
2	Drainage facilities structural drawing	1
3	Incidental facilities structural drawing	1

Section 2-2 Road

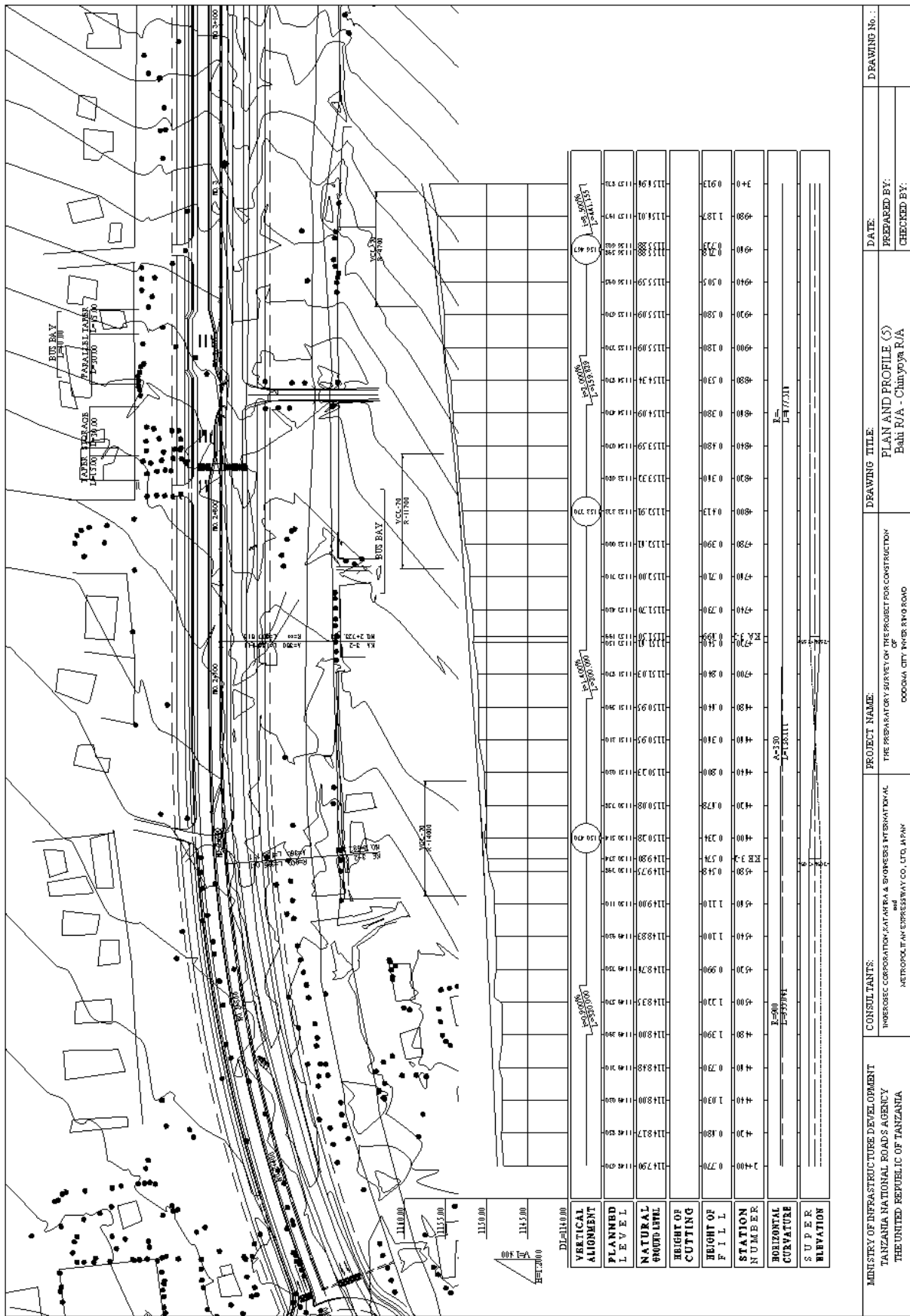


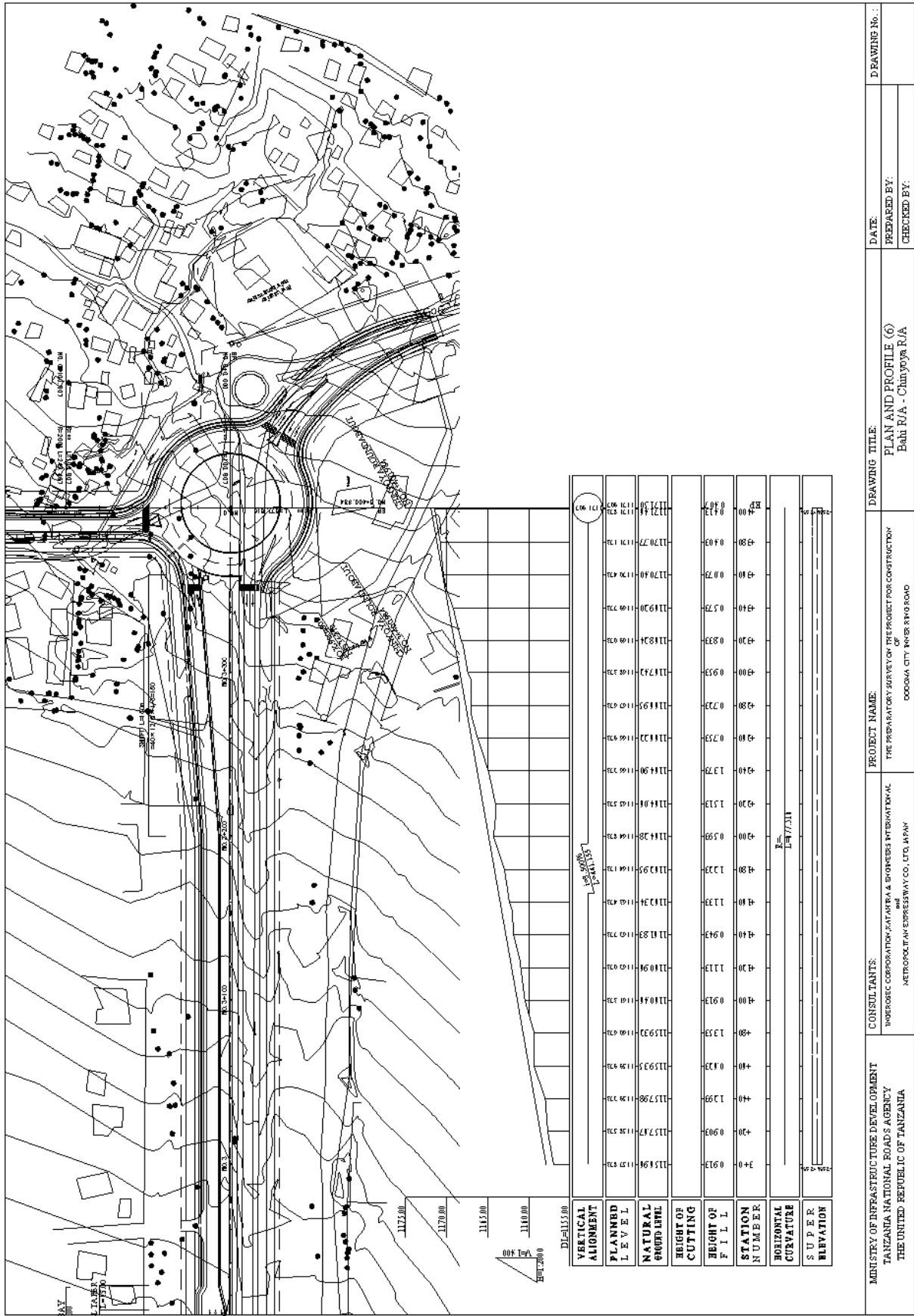




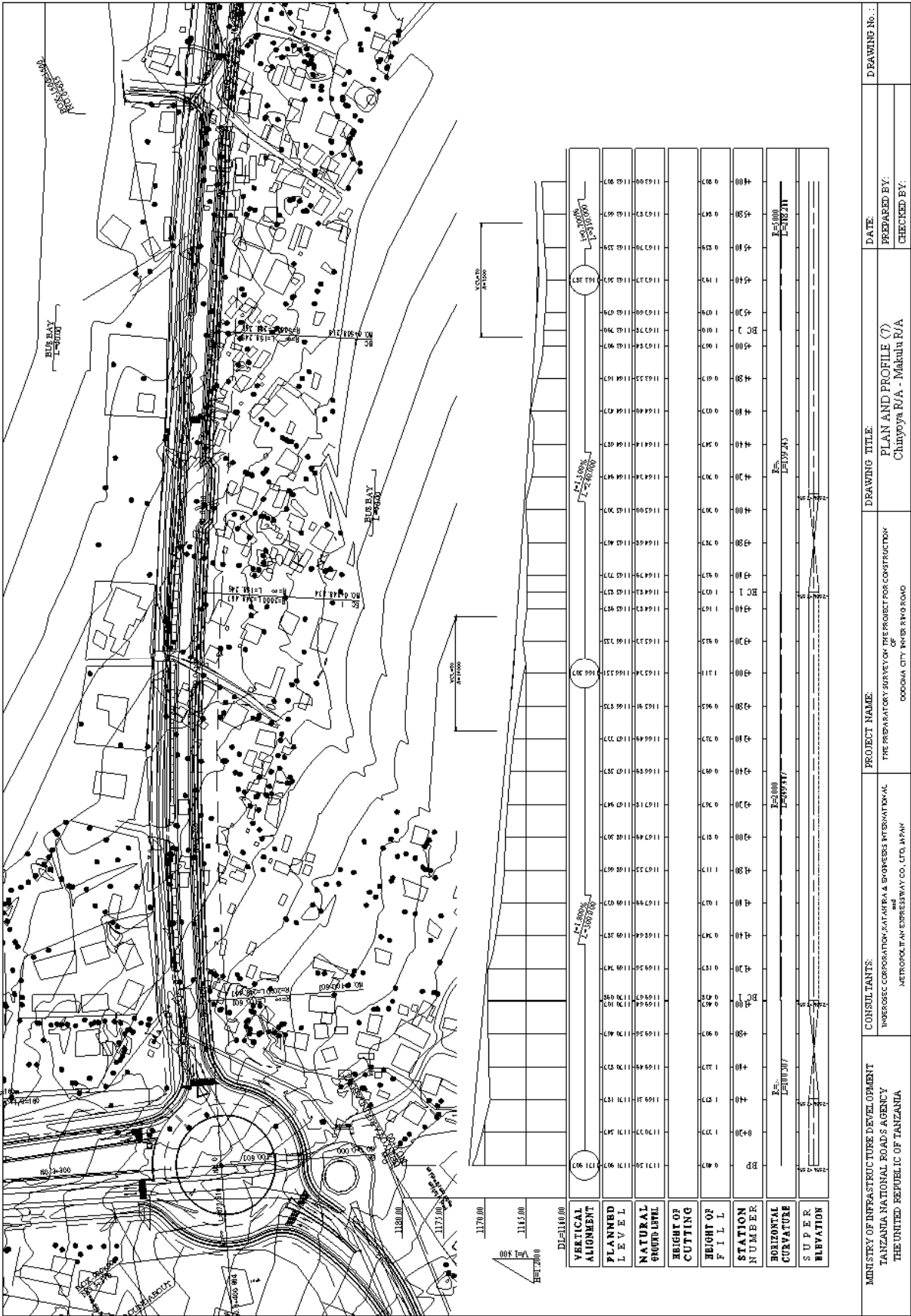


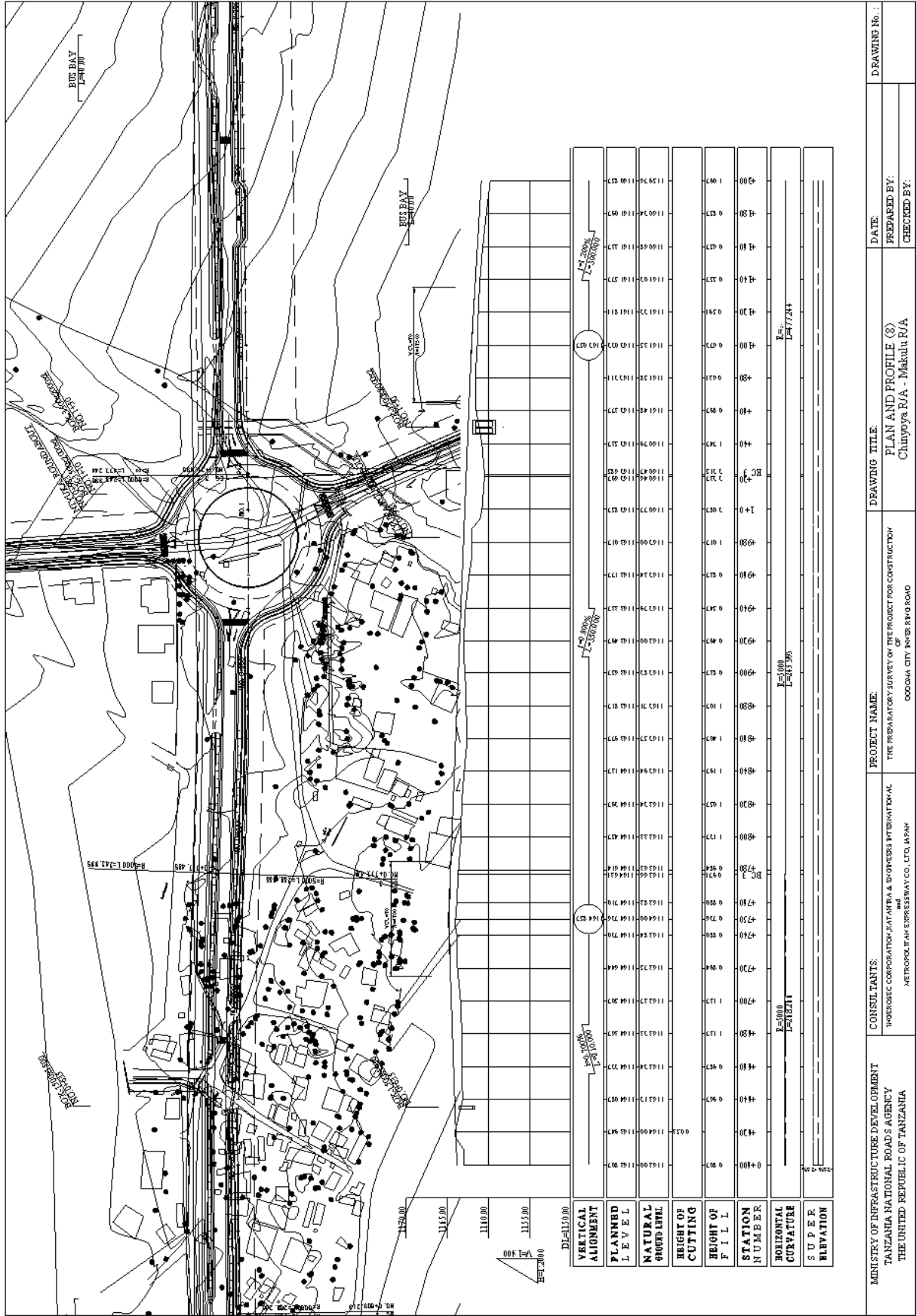


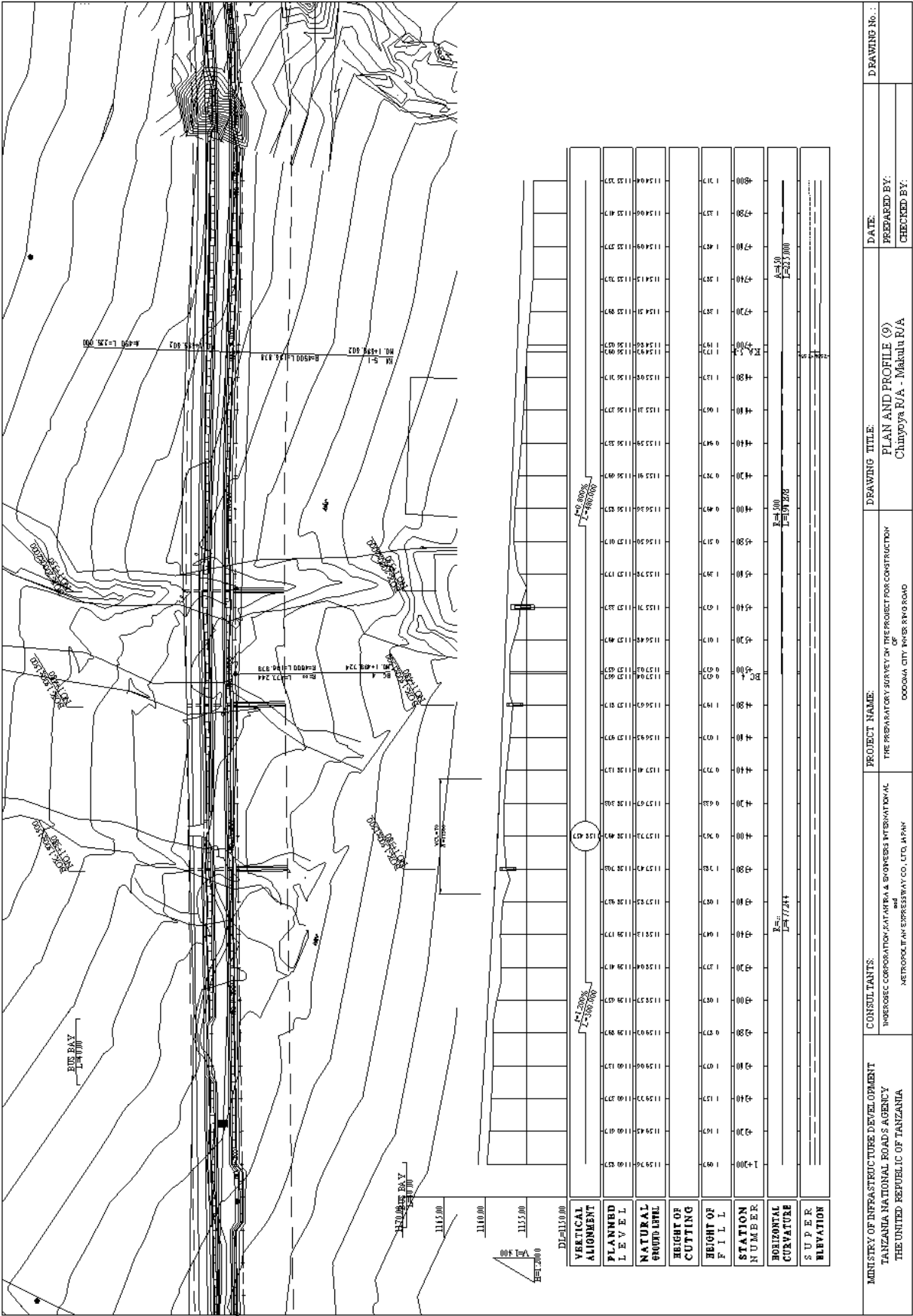


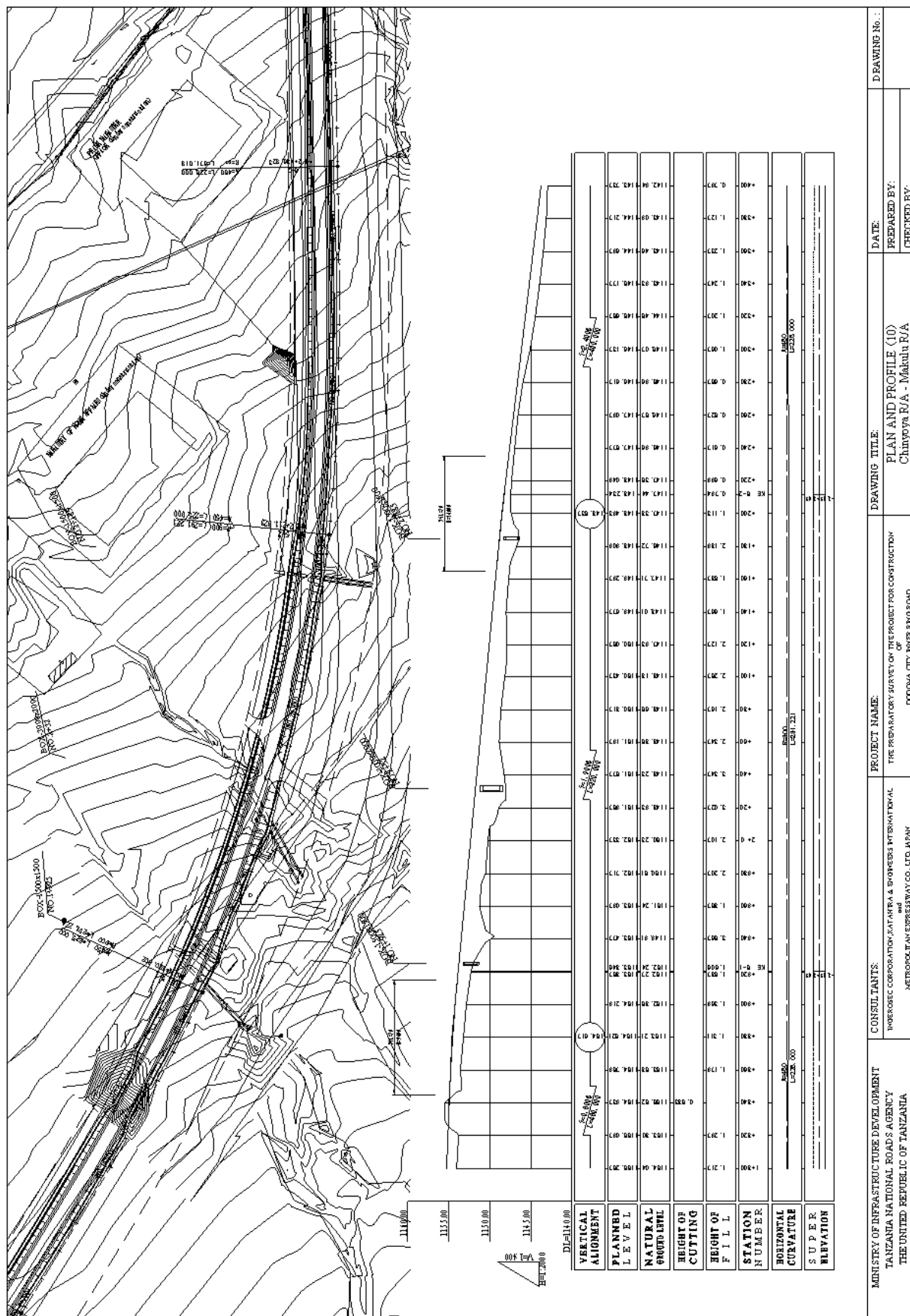


Section 3 Road

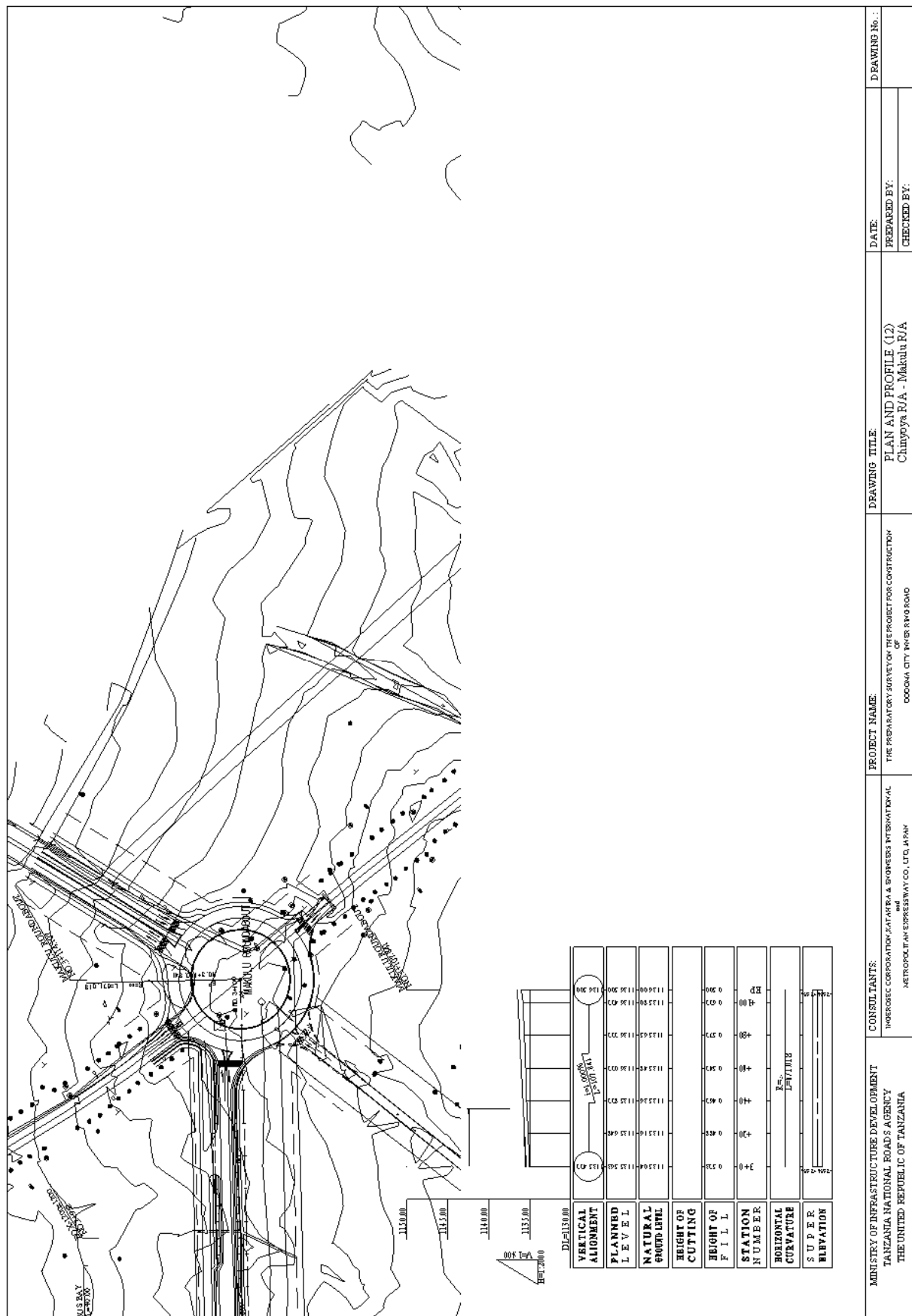












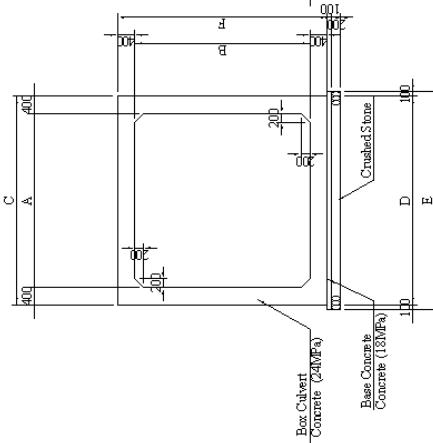




## A-106

## SCALE AS SHOWN

Box Culvert (Cast in Situ Concrete) SCALE 1:100  
3500 x 2000 x 2



TYPE	A	B	C	D	E	F	REMARK
2000 x 2000	2000	2000	2800	2800	3000	2800	
3000 x 2000	3000	2000	3800	3800	4000	2800	

MINISTRY OF INFRASTRUCTURE DEVELOPMENT TANZANIA NATIONAL ROADS AGENCY P.O. BOX 1000 DAR ES SALAAM THE UNITED REPUBLIC OF TANZANIA	CONSULTANTS: ENGINEERING CONSULTANTS & ENGINEERS INTERNATIONAL P.O. BOX 1000 DAR ES SALAAM TANZANIA	PROJECT NAME: THE PREPARATORY SURVEY ON THE PROJEKT FOR CONSTRUCTION OF THE NATIONAL ROAD FROM DAR ES SALAAM TO LTD. 1424N NORTH OF LTD. 1424N FOR 0044 (TUNGARE) BRIDGE ROAD.	DRAWING TITLE:	DATE:	DRAWING No.:
			DRAINAGE STRUCTURE ( 5 )	PREPARED BY: CHECKED BY:	038

