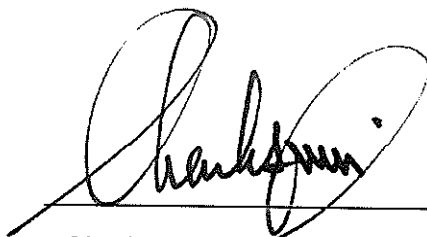


SCOPE OF WORK  
FOR  
THE FEASIBILITY STUDY  
ON  
THE CONSTRUCTION  
OF  
A NEW BRIDGE ACROSS RIVER NILE AT JINJA  
IN  
THE REPUBLIC OF UGANDA  
  
AGREED UPON BETWEEN  
  
MINISTRY OF WORKS AND TRANSPORT  
  
AND  
  
JAPAN INTERNATIONAL COOPERATION AGENCY

Kampala, July 8, 2008



Tomoyuki Naito  
*Leader of Preparatory Study Team*  
*Japan International Cooperation Agency*  
*Japan*



Charles Muganzi Amooti  
*Permanent Secretary*  
*Ministry of Works and Transport*  
*The Republic of Uganda*



## **I . INTRODUCTION**

In response to the official request of the Government of Republic of Uganda (hereinafter referred to as "GOU"), the Government of Japan (hereinafter referred to as "GOJ") decided to conduct the Study on the construction of a new bridge across River Nile at Jinja (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the GOJ, will jointly undertake the Study with the authorities concerned of GOU.

On the part of GOU, Uganda National Roads Authority (hereinafter referred to as "UNRA") which is autonomous under Ministry of Works and Transport (hereinafter referred to as "MOWT"), shall act as the counterpart agency to the Japanese study team and as the coordinating body in relation with other concerned organizations for the smooth implementation of the Study.

UNRA is the organization mandated to plan, develop, and maintain the national road network and bridges in the country of Uganda.

The present document sets forth the Scope of Work with regard to the Study.

## **II . OBJECTIVES OF THE STUDY**

The objectives of the Study are:

1. to conduct the feasibility study on the construction of a new bridge across River Nile at Jinja including its approach roads
2. to transfer relevant skills and technologies to personnel concerned with the Study

## **III . STUDY AREA**

The Study shall focus on the area directly influenced by the proposed bridge construction project, as shown in Appendix-1.

## **IV . SCOPE OF THE STUDY**

In order to achieve the objectives mentioned above, the Scope of Work for the Study shall cover the following items:

1. Preparatory Works
  - 1-1. Planning for Implementation of the Study
  - 1-2. Preparation of the Inception Report (IC/R)
2. Analyses of Existing Conditions
  - 2-1. Analyses based on existing/available data, information and reports
    - (1) The country and Study area
      - a) Socio-Economic conditions and future development plans of the country as well as Study area
      - b) Current conditions and future development plans of the transport sector of the country as well as Study area
      - c) Environment protection laws and regulations including "Environment Impact Assessment (EIA)" and land acquisition
      - d) Policies, laws and regulations regarding resettlement
      - e) Other data and information related to the Study
    - (2) The Study Area

- a) Natural, socio-economic and environmental conditions
  - b) Land use including environmentally sensitive areas
  - c) Current transport network and traffic of roads and railways
  - d) Traffic data on land transport and other transport in the Study area
  - e) Future transport development plan of roads and railways
  - f) Other data and information related to the Study
- 2-2. Analyses based on the investigations and surveys by the Study
- a) Socio-economic survey in the Study area including land use
  - b) Surveys of transport infrastructure, systems and service in the Study area
  - c) Traffic survey in the Study area
  - d) Engineering survey related to the proposed bridge construction including topographic surveys and geotechnical investigation for bridge foundation and approach road.
  - e) Environment survey related to the proposed bridge and road construction including possible land acquisition
  - f) Social survey related to the proposed bridge and road construction including possible impacts and mitigation measures of resettlement
3. Future Traffic Demand Forecast
- 3-1. Clarification of the current socio-economic framework of the study area
  - 3-2. Clarification of the current traffic demand related to the study area including (a) generation and attraction, (b) distribution, (c) modal split, and (d) traffic assignment
  - 3-3. Review of national and regional development plans related to the Study area
  - 3-4. Assumption of future socio-economic framework of the Study area
  - 3-5. Assumption of the future transport network related to the Study area
  - 3-6. Forecast of future traffic demand related to the Study area
  - 3-7. Clarifications of the structure of future traffic demand using the new bridge across River Nile
4. Study on alternative methods for crossing the River Nile
- 4-1. Identification of the alternative methods for crossing the river as well as criteria for selecting the best option
  - 4-2. Surveys on alternative methods
    - a) Socio-economic condition survey including land use
    - b) Natural condition survey from engineering view point
    - c) Study on possible environmental and social impacts
  - 4-3. Assessment of alternatives and selection of best option
    - a) Improvement of other methods
    - b) Construction of the bridge
    - c) Zero option
  - 4-4. Recommendation on the method for crossing the river
5. Feasibility analysis of the Study
- 5-1. Basic policy for the feasibility study on the bridge construction project
  - 5-2. Development of bridge alternatives by location, design and alignment from cost effective and updated technology considerations
  - 5-3. Development of decision matrix for selection of the best alternative
  - 5-4. Feasibility study on the selected best alternative
    - a) Designing (bridge section and approach road sections)  
The design is to include design of components (including investigations such as Hydraulic Study, Wind Impact Study, Seismic Impact Study, etc.) and drawings including construction methodology and Bill of Quantity (BOQ).
    - b) Costing (Investment and operation/maintenance)  
Cost estimate will be based on BOQ and estimated unit rates
    - c) Scheduling
    - d) Financial evaluation including finding FIRR and other parameters

- e) Economic evaluation including finding EIRR and other parameters
  - f) Evaluation of environmental and social impacts including the costing of mitigation measures for possible impacts
  - g) Conclusion of the feasibility analysis
6. Overall Evaluation and Recommendations
    - 6-1. Overall evaluation of the project
    - 6-2. Recommendations for the project implementation
    - 6-3. Recommendations for environmental and social considerations
    - 6-4. Recommendations for land acquisition and rehabilitation/ resettlement plan
  7. Technology Transfer to Counterpart Personnel

## **V. SCHEDULE OF THE STUDY**

The Study is estimated twelve (12) months in accordance with the tentative schedule as attached in the Appendix-2. The schedule is tentative and subject to be modified when both parties agree upon any necessity that will arise during the course of the Study.

## **VI. STUDY IMPLEMENTATION MECHANISM**

1. Steering Committee and Technical Committee  
MOWT will establish the Steering Committee to provide policy guidelines, and Technical Committee to provide technical advice for the Study and sort out technical problems, if any.
2. Collaboration between JICA Study Team and Counterpart Team of UNRA  
UNRA will assign the counterpart personnel to work together with JICA Study Team on a daily basis.
3. Technical Committee  
Technical Committee which is consisted of both GOU and JICA Study Team is to review the Study and make comments for improving results of the Study from time to time. The comments and recommendations suggested by the Technical Committee shall be suitably integrated into the Study.

## **VII. REPORTS**

JICA shall prepare and submit following reports in English to the GOU.

### **1. Inception Report:**

Thirty (30) copies, at the time of commencement of the Study

### **2. Progress Report I:**

Thirty (30) copies will be submitted at the time of three (3) months after the commencement of the Study.

### **3. Interim Report:**

Thirty (30) copies will be submitted at the time of about six (6) months after the commencement of the Study.

### **4. Progress Report II :**

Thirty (30) copies will be submitted at the time of about eight (8) months after the commencement of the Study.

5. Draft Final Report:

Forty (40) copies will be submitted at the time of about ten (10) months after the commencement of the Study.

The GOU shall submit its comments within one (1) month after the receipt of the Draft Final Report.

6. Final Report:

Fifty (50) copies will be submitted within one (1) month after the receipt of the comments on the Draft Final Report.

## **VIII. UNDERTAKINGS OF JICA**

For the implementation of the Study, JICA shall take the following measures;

1. to dispatch, as its own expense, the Japanese Study Team (hereinafter referred to as “the Study Team”) and
2. to pursue technology transfer to the counterpart personnel during the Study

## **IX. UNDERTAKINGS OF THE GOU**

1. To facilitate the smooth conduct of the Study; the GOU shall take necessary measures:

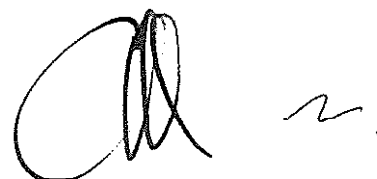
- (1) To permit the members of the Team to enter, leave and sojourn in Uganda for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees;
- (2) To exempt the members of the Team from taxes, duties and any other charges on equipment, machinery and other material brought into Uganda for the implementation of the Study;
- (3) To exempt the members of the Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the team for their services in connection with the implementation of the Study;
- (4) To provide necessary facilities to the Team for the remittance as well as utilization of the funds introduced into Uganda from Japan in connection with the implementation of the Study;

2. GOU shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the Team.

3. MOWT shall act as a counterpart agency to the Team and also as a coordinating body with other relevant organizations for the smooth implementation of the Study, on behalf of the GOU.

4. MOWT shall, at its own expense, provide the Team with the following, in cooperation with other organizations concerned:

- (1) Security-related information on as well as measures to ensure the safety of the Team;
- (2) Information on as well as support in obtaining medical service;
- (3) Available data (including maps and photographs) and information related to the Study;
- (4) Counterpart personnel;

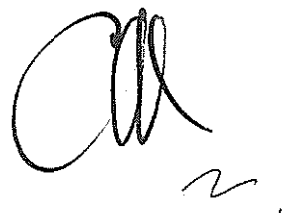


- (5) Suitable office space with necessary equipment; and
- (6) Credentials or identification cards.

5. GOU shall be responsible for the environmental and social impact considerations process which includes the cost of hiring of consultants, EIA approval, etc., in accordance with the time schedule of the Study.

#### **X. CONSULTATION**

JICA and the MOWT shall consult with each other in respect of any matter that may arise from or in connection with the Study.

A handwritten signature in black ink, consisting of a large, stylized 'C' followed by a series of loops and a small flourish at the end.



## APPENDIX 2

## TENTATIVE SCHEDULE

Month	1	2	3	4	5	6	7	8	9	10	11	12
Work in Uganda												
Work in Japan												
Reports	△ IC/R		△ PR/R-1			△ IT/R		△ PR/R-2		△ DF/R		△ F/R

IC/R: Inception Report

PR/R: Progress Report

IT/R: Interim Report

DF/R: Draft Final Report

F/R: Final Report



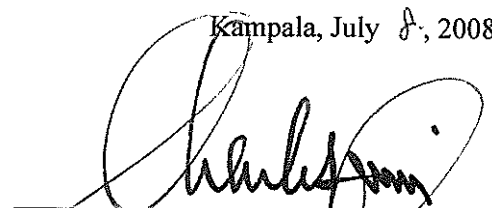
3. Minutes of Meeting (M/M)

MINUTES OF MEETING  
ON  
SCOPE OF WORK  
FOR  
THE FEASIBILITY STUDY  
ON  
THE CONSTRUCTION  
OF  
A NEW BRIDGE ACROSS RIVER NILE AT JINJA  
IN  
THE REPUBLIC OF UGANDA  
AGREED UPON BETWEEN  
MINISTRY OF WORKS AND TRANSPORT  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

Kampala, July 8, 2008



Tomoyuki Naito  
*Leader of Preparatory Study Team*  
*Japan International Cooperation Agency*  
*Japan*



Charles Muganzi Amooti  
*Permanent Secretary*  
*Ministry of Works and Transport*  
*The Republic of Uganda*



In Response to the official request of the Government of Republic of Uganda (hereinafter referred to as “GOU”), the Government of Japan (hereinafter referred to as “GOJ”) dispatched the preparatory study team headed by Mr. Tomoyuki NAITO (hereinafter referred to as “the Team”) from 22<sup>nd</sup> June to 12<sup>th</sup> July, 2008, through Japan International Cooperation Agency (hereinafter referred to as “JICA”), to discuss the scope of work for the Feasibility Study on the Construction of a New Bridge Across River Nile at Jinja (hereinafter referred to as “the Study”).

During the stay of the Team in Uganda, a series of meetings were held with Uganda National Roads Authority (UNRA)/Ministry of Works and Transport (MOWT) and other organizations related to the Study. The list of participants of the meetings is shown in Annex 1.

This document summarizes major items discussed between both sides and is intended to supplement the Scope of Work for smooth conduct of the Study.

### **1. Study Title**

Both sides agreed that the title of the Study is “The Feasibility Study on the Construction of a New Bridge Across River Nile at Jinja”.

### **2. Basic Stance of the Study**

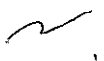
2-1 Both parties agreed that the Study will make maximum use of the existing related records and reports, includes “*Nile Bridge at Jinja Uganda – Pre Investment Study*” which is officially released by Road Agency Formation Unit, Ministry of Works and Transport, Uganda on March 2006, under the consultation by Mott Macdonald and Kagga & Partners.

2-2 Based on the principle to utilize existing related records and reports as described in above 2-1, both parties agreed that the Study will focus on proposed three (3) locations for the New Bridge Across River Nile at Jinja which are indicated on Appendix-1 of the Scope of Work of the Study.

2-3 GOU requested to minimize the schedule of the Study which is shown on Appendix-2 of the Scope of Work as tentative, because of the necessity and urgency of the New Bridge. The Team understands the significance of the request and promised to consider further possibility before the commencement of the Study.

### **3. Utilization of the Data**

The data of the River Nile and its surrounding area’s conditions as well as transport



demand forecast contained in the study report of The National Transport Master Plan (NTMP) and other related study reports owned by GOU will be used to the extent possible, although supplementary traffic surveys and river condition surveys will be carried out during the Study to incorporate any recent changes. UNRA/MOWT agreed to make its best efforts to provide those data to the Study Team.

#### **4. Steering Committee**

Both parties agreed that a Steering Committee (hereinafter referred to as “the Committee”) will be set up for effective and efficient implementation of the Study under the chair of the MOWT. The Committee will decide on important matters to promote the output of the Study. The Committee will comprise representatives from the following ministries and other related organizations.

- (1) Ministry of Works and Transport (MOWT)
- (2) Uganda National Road Agency (UNRA)
- (3) Jinja Municipal Council
- (4) Njeru Town Council
- (5) National Environment Management Authority (NEMA)
- (6) Ministry of Finance, Planning and Economic Development (MOFPED)
- (7) Ministry of Lands, Housing, and Urban Development (MOLHUD)
- (8) Ministry of Water and Environment (MOWE)
- (9) JICA Study Team
- (10) JICA Uganda Office


MOWT shall inform JICA Uganda Office of the members of the Committee before the commencement of the Study.

#### **5. Transfer of Technology**

The Study Team will make an effort to transfer skills and technology through On-the-Job Training. In addition to that MOWT requested for counterpart training in Japan as part of technology know-how transfer activity. The Team promised to convey it to JICA headquarters and Japanese Official Development Assistance (ODA) taskforce. In case, the request is approved by GOJ, the number, field and duration of the training shall be discussed after the commencement of the Study.

#### **6. Counterpart Personnel**

Both parties agreed that the Study should be conducted in close collaboration between the Ugandan side and the Japanese side. In this context, UNRA agreed to assign an appropriate number of counterpart personnel. The macro organization chart of UNRA is shown in



Annex-2.

## **7. Environmental and Social Considerations**

The Team explained the basic concept of environmental and social considerations based on JICA's guidelines, and emphasized on the responsibility of Uganda side in conducting the environmental and social considerations while ensuring information disclosure and participation of stakeholders from the early stages of the Study. Both parties agreed to use JICA and NEMA EIA guidelines during the Study.

## **8. Railway Bridge**

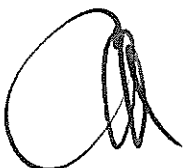
MOWT mentioned to the Team the possibility to incorporate the railway into the proposed New Bridge. However, since "*East African Railway Master Plan Study*" which includes Ugandan railway is still under discussion among region's stakeholders, MOWT advised the Team that the Study should concentrate on the New Bridge Design only for road transportation use because viable road alternative to the existing bridge at Nalubaale crossing at Jinja is very urgent and important. The Team concurred with MOWT's advice.

## **9. Width of New Bridge**

GOU requested the Team to consider the four (4) lanes for the width of the New Bridge. The Team understood the significance of the request, and the detail should be verified within the Study.

## **10. Others**

- 10-1 Both sides agreed the result of the Study would be open to the public in order to achieve maximum use of the Study results
- 10-2 The Team notified that they estimated to start discussion of the Inception Report in October 2008, subject to JICA's internal procedures.
- 10-3 GOU suggested to explore the possibility of carrying out Pre-Qualification (P/Q) in parallel with Detailed Design (D/D) in order to minimize tendering process to meet the urgent requirement for the New Bridge.



## **The List of Participants in the Meeting**

### **UGANDAN SIDE**

#### **Ministry of Works and Transport (MOWT)**

A.O.Mugisa, Commissioner for Roads

A.O.Orach, Principal Executive Engineer/Bridges

#### **Uganda National Roads Authority (UNRA)**

James Okiror, Director of Projects

George Bwanga, Projects Manager

Jonathan Tugume, Monitoring and Evaluation Officer

### **JAPANESE SIDE**

#### **The Preparatory Study Team, JICA**

Tomoyuki Naito, Leader

Takahiro Goto, Study Planning

Teruo Nakagawa, Bridge Planning

Akihiko Kitayama, Road Planning

Nobuyuki Iijima, Environmental and Social Consideration/Natural Conditions

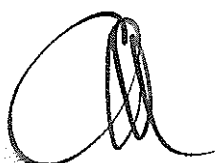
#### **Japan Bank for International Cooperation**

Atsushi Yamamoto, Country Officer, Development Assistance Department IV

Yoshio Tomita, Deputy Director, Sector Strategy Development Department

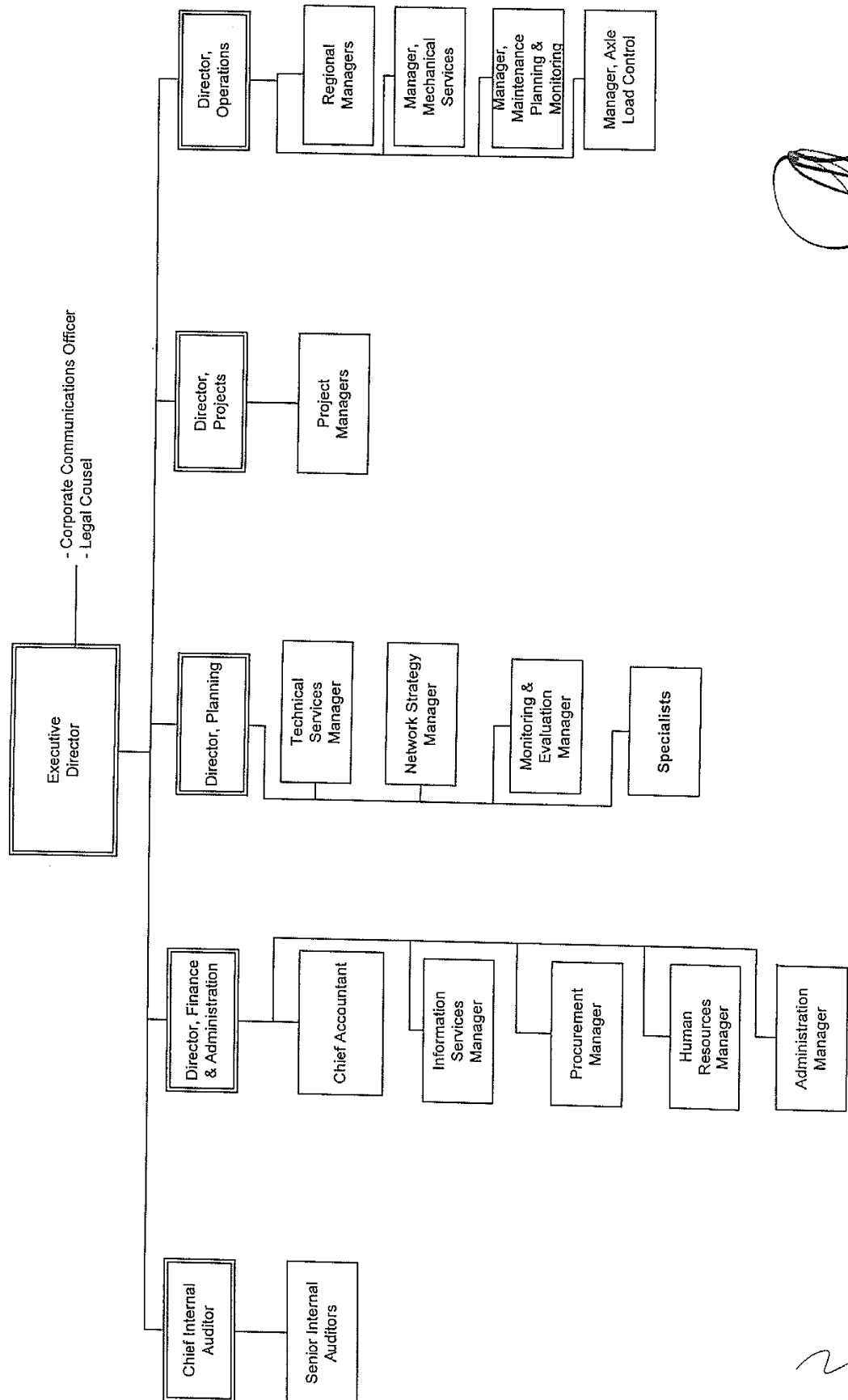
#### **JICA Uganda Office**

Yuriko Doi, Assistant Resident Representative



# Uganda National Roads Authority

## Macro Organogram



Annex-2

#### 4. 収集資料リスト

番号	資料の名称	発行年	型版	形態	頁数	原本／ コピー	部数	収集先 (発行機関)
1	National Transportation Master Plan	2005	A4	製本	150	ソフト コピー	1	MOWT
2	Jinja Municipality Structure Plan 2008-2018	2008	A4	製本	120	ハード コピー	1	MOLG
3	Ministerial Budget Policy Statement Financial Year 2007/2008	2007	A4	製本	250	ハード コピー	1	MOWT
4	ジンジャ市土地利用図、2018 年	2008	-	ペーパー	1	ソフト コピー	1	MOLG
5	Detailed Budget Estimates For FY 08/09	2008	A4	ペーパー	5	ハード コピー	1	UNRA
6	Road Geometric Design Manual	2005	A4	製本	250	ソフト コピー	1	UNEA
7	Drainage Design Manual	2005	A4	製本	100	ソフト コピー	1	UNRA
8	Pavement Design Manual	2005	A4	製本	100	ソフト コピー	1	UNRA
9	Road Maintenance Specification	2005	A4	製本	100	ソフト コピー	1	UNRA
10	Road Maintenance Management Manual	2005	A4	製本	150	ソフト コピー	1	UNRA
11	路側交通量調査結果 (平成 20 年 7 月 3 日 7:00～19:00)	2008	A4	ペーパー	50	ハード コピー	1	JICA 事前調査団
12	ジンジャ市内の交通調査と解析	2008	A4	ペーパー	25	ソフト コピー	1	MOLG
13	National Road Network Map	2008	-	ペーパー	1	ソフト コピー	1	UNRA
14	National Road Inventory Data	2008	A4	ペーパー	5	ソフト コピー	1	UNRA
15	Company Profile of PROME Consultants & List of Major Consultants	2008	A4	ペーパー	80	ハード& ソフト コピー	1	PROME & UNRA
16	SOLEL BONEH INTERNATIONAL LTD. (SBI) & List of Approved Local Contractors	2008	A4	製本	20	ハード& ソフト コピー	1	SBI & UNRA
17	鉄道橋一般図	1931	A0	ペーパー	1	ハード コピー	1	URC
18	鉄道橋断面図	1931	A0	ペーパー	1	ハード コピー	1	URC
19	Emergency Repairs on Nalubaale Dam Bridge Final Report-Volume 1	2005	A4	ペーパー	96	ハード コピー	1	MOWT
20	Emergency Repairs on Nalubaale Dam Bridge Final Report-Volume 2	2005	A4	ペーパー	55	ハード コピー	1	MOWT
21	Bridge Design Manual	2005	A4	製本	166	ソフト コピー	1	MOWT
22	Vol.3 Project Specific Guide (Roads & Bridges)	2005	A4	製本	65	ソフト コピー	1	MOWT
23	Standard drawings	2005	A3	製本	25	ソフト コピー	1	MOWT
24	Uganda seismic data	2008	A4	ペーパー	6	ソフト コピー	1	DGSM
25	Cadastral Map	2008	A1	ペーパー	21	ソフト コピー	1	MOLHUD
26	ジンジャ・ムコノ県上下水道網図	2008	A0	ペーパー	1	ソフト コピー	1	NWSC
27	The National Environment Statute 1995	1995	A4	ペーパー	66	ソフト コピー	1	インターネット
28	The National Environment Act Cap.153	1997	A5	製本	82	原本	1	NEMA

29	Guideline for Environmental Impact Assessment in Uganda	1997	A4	製本	60	原本	1	NEMA
30	The Environment Impact Assessment Regulations, 1998	1998	A5	製本	71	原本	1	NEMA
31	The National Environment(Conduct and Certification of Environmental Practitioners) Regulations, 2003	2003	A5	製本	36	原本	1	NEMA
32	The Land Act Cap.227 (Land (Amendment) Act 2004 を含む)	1998	A5	製本	23	原本	1	UPPC
32	Land Regulations 2004	2004	A5	製本	138	原本	1	UPPC
33	The Land Acquisition Act Cap.226	1965	A5	ペーパー	12	ハードコピー	1	UNRA
34	2008 Statistical Abstract	2008	A4	製本	227	原本	1	UBOS
35	2002 Uganda Population and Housing Census (JINJA and MUKONO District)	2002	A4	ペーパー	80	ソフトコピー	1	UBOS
36	Hydrological Data (Water Level, Velocity, Discharge)	2008	A4	エクセルデータ	3	ソフトコピー	1	MOWE Department of Water Resources
37	Meteorological Data (ジンジャ市の雨量)	2008	A4	エクセルデータ	1	ソフトコピー	1	MOWE Department of Meteorological
38	Uganda Electricity Transmission Company Limited(UETCL) RP442 Resettlement Action Plan(RAP) Final Report	2006	A4	電子データ	82	ソフトコピー	1	インターネット
39	The proposed Construction of the Hydro-Electric Power Project and its Impact on Land Acquisition, Human Right and Land Rights of the Affected People around the Proposed Dam Site.	2007	A4	Pdf ファイル	52	ソフトコピー	1	インターネット
40	Uganda Geological Map	2004	A1	ペーパー	1	原本	1	DGSM
41	Geological Map of JINJA	1957	A1	ペーパー	1	原本	1	DGSM
42	Geological Map of East Africa	1952	A0	ペーパー	1	原本	1	DGSM
43	Map of JINJA (1:10,000)	1963	A0	ペーパー	1	原本	1	MOLHUD
44	Map of JINJA (1:50,000)	1997	A0	ペーパー	1	原本	1	MOLHUD
45	Map of JINJA (1:2,500) 周辺3枚	1962	A1	ペーパー	3	原本	1	MOLHUD

(未入手資料リスト)

番号	資料の名称	発行年	型版	形態	頁数	原本／ コピー	部数	収集先 (発行機関)
1	Land Use Map	未確認	A0	ペーパー	必要部分	原本	—	MOLHUD Department of Survey and mapping
2	Land Cover Map	未確認	A0	ペーパー	必要部分	原本	—	ditto
3	絶滅危惧種リスト	未確認	不明	電子ファイル	不明	ソフトコピー	—	マケレレ大学 /NEMA
4	北部バイパス リセトルメントアクションプラン	未確認	A4	ペーパー	不明	ソフトコピー	1	UNRA
5	NGO リスト	2008	A4	電子ファイル	不明	ソフトコピー	1	NEMA
6	ジンジャ市 気象データ (気温・湿度・蒸発散量)	2008	A4	電子ファイル	不明	ソフトコピー	1	MOWE Department of Meteorological