

## 資 料

1. 調査団員・氏名
2. 調査行程
3. 関係者（面会者）リスト
4. 討議議事録（M/D）
5. 事業事前計画表（概略設計時）
6. 参考資料／入手資料リスト
7. ソフトコンポーネント計画書（なし）
8. その他の資料・情報

## 資料1 調査団員・氏名

1. 調査団員・氏名

現地調査

	氏 名	担 当	所 属
1	梅永 哲 Mr. Umenaga Satoshi	総 括	J I C A 経済基盤開発部 運輸交通・情報通信第三課長
2	横井 博行 Mr. Yokoi Hiroyuki	計画管理	J I C A 経済基盤開発部 運輸交通・情報通信第三課
3	香野 拓司 Mr. Kono Takuji	業務主任/地すべり対策	片平エンジニアリング・ インターナショナル
4	小林 聖仁 Mr. Kobayashi Kiyohito	副業務主任/機材計画	片平エンジニアリング・ インターナショナル
5	玉置 隆一 Mr. Tamaki Takakazu	調達計画/積算	片平エンジニアリング・ インターナショナル
6	山口 晋二 Mr. Yamaguchi Shinji	業務調整（自社負担）	片平エンジニアリング・ インターナショナル

## 資料 2 調査行程

## 2. 調査行程

### 現地調査

	日	曜日	JICA 本部		コンサルタント				
			梅永 哲 (総括)	横井 博行 (計画管理)	香野 拓司 (業務主任・ 地すべり対策)	小林 聖仁 (副業務主任・ 機材計画)	玉置 隆一 (調達計画・ 積算)	山口 晋二 (業務調整 (自社負担))	
1	12月8日	火	他案件対応		成田→香港: CX505 香港				
2	12月9日	水	他案件対応		→ドバイ: CX745 ドバイ→アディスアベバ: EK723			ナイロビ→ アディスアベバ: ET800	
【15:00～】JICAエチオピア事務所にて協議									
3	12月10日	木	他案件対応	【10:00～】アラムガナDRMCにて要請機材確認					
				【14:00～】アラムガナTraining & Testing Center調査・打合せ					
				【16:00～】アラムガナ機材倉庫調査→アラムガナDRMCにて要請機材確認					
4	12月11日	金	他案件対応		【10:00～】ムケトリセクション事務所およびヤード調査				
【16:00～】ERA本部にて要請機材およびプロジェクトについての協議									
5	12月12日	土	ムケトリセクション事務所およびヤード調査、アバイ渓谷地すべり状況(ゴハチオン～デジエン)現地調査						
6	12月13日	日	他案件対応		アバイ渓谷地すべり状況(ゴハチオン～デジエン)現地調査				
【10:00～】ERA本部にてミニツ(案)協議									
【16:00～】ERA本部にて要請機材最終協議・確認									
8	12月15日	火	他案件対応		【9:30～】ERAのCentral WarehouseとCentral Garage調査				
【PM】資料収集・整理									
9	12月16日	水	他案件対応		資料収集・整理				
【15:00～】ERA本部にてミニツ署名									
10	12月17日	木	【13:30～】在エチオピア日本国大使館報告			資料収集・現地調査結果概要取りまとめ			
				【16:00～】JICAエチオピア事務所報告					
11	12月18日	金	アディスアベバ		【10:00～】アラムガナDRMCにてQ&A回答書受領	現地調査結果概要取りまとめ	【10:00～】アラムガナDRMCにてQ&A回答書受領	現地調査結果概要取りまとめ	
					【13:30～】ERA本部にて環境関連許認可の調査		【13:30～】ERA本部にて環境関連許認可の調査		
12	12月19日	土	→ドバイ: EK724 ドバイ→関西: EK316 関西→羽田: JL188		現地調査結果概要取りまとめ				
13	12月20日	日	現地調査結果概要取りまとめ						
14	12月21日	月	/		アディスアベバ→ドバイ: ET602 ドバイ			アディスアベバ→ ナイロビ: ET801	
15	12月22日	火			/		→香港: CX746 香港→成田: CX504		

### 資料3 関係者（面会者）リスト

### 3. 関係者（面会者）リスト

#### (1) エチオピア道路公社（ERA）

Mr. Zaid Wolde Gabriel	Director General
Mr. Masfin Haile	Deputy Director General
Mr. Afework Bezulph	Executive assistance & Advisor to D.G.
Mr. Haddis Tesfaye	Highway Engineer
Mr. Ato Bekele Negussie	Planning & Programming Division Manager
Mr. Nebyou Endale Negash	Alemgena DRMC District Manager
Mr. Demelash Gebre Mariam	Alemgena DED Manager
Mr. Hailu Chekun	Training and Testing Chief
Ms. Mamona Belay	Muketuri Section Engineer II
Mr. Mohamed Sied	Muketuri Section Foreman
Mr. Gekachew Assefa	Industrial Section Head
Mr. Haile Michael Marean	Procurement Service

#### (2) 在エチオピア日本国大使館

駒野 欽一	特命全権大使
竹中 一行	経済協力担当官

#### (3) JICA エチオピア事務所

佐々木 克宏	所長
晋川 眞	次長
鈴木 桃子	所員

#### (4) 民間企業

##### 鹿島建設株式会社

内藤 智博	営業部 営業部長
畠山 力也	エチオピア出張所 工事課長
西尾 比呂隆	エチオピア出張所 事務長

##### 三菱商事株式会社

久米 正人	エチオピア支店 支店長
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## 資料4 討議議事録 (M/D)



**MINUTES OF DISCUSSIONS  
ON THE PREPARATORY SURVEY  
ON THE PROJECT FOR OPERATION AND MAINTENANCE OF  
TRUNK ROAD: GOHA TSHION – DEJEN (EQUIPMENT SUPPLY)  
IN THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA**


In response to a request from the Government of the Federal Democratic Republic of Ethiopia (hereinafter referred to as “Ethiopia”), the Government of Japan decided to conduct a Preparatory Survey on the Project for Operation and Maintenance of Trunk Road; Goha Tsion-Dejen (Equipment Supply) (hereinafter referred to as “the Project”) and entrusted the survey to Japan International Cooperation Agency (hereinafter referred to as “JICA”).

JICA sent to Ethiopia the Preparatory Survey Team for the Field Survey (hereinafter referred to as “the Team”), which is headed by Mr. Satoshi Umenaga, Director, Transportation and ICT Division 3, Economic Infrastructure Department, JICA, and is scheduled to stay in the country from December 8<sup>th</sup> to 21<sup>st</sup>, 2009.

The Team held discussions with the officials concerned of the Government of Ethiopia and conducted a field survey at the Project sites.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Preparatory Survey Report.

Addis Ababa, December 16, 2009

<p>梅永 哲</p> <p>Satoshi Umenaga Leader Preparatory Survey Team Japan International Cooperation Agency Japan</p>	<p> </p> <p>Zaid Wolde Gabriel Director General Ethiopian Roads Authority Federal Democratic Republic of Ethiopia</p>
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Witnessed by



Tilahun Tadesse  
Bilateral Cooperation Sub Process Owner  
Ministry of Finance and Economic Development  
Federal Democratic Republic of Ethiopia

## ATTACHMENT

### 1. Objective of the Project

The objective of the Project is to improve the smooth flow and safety of transport on the A3 trunk road between Goha Tshion and Dejen in Abay Gorge through the procurement of equipment.

### 2. Project Site

The site is Abay Gorge between Goha Tshion and Dejen on the A3 trunk road shown in Annex-1.

### 3. Responsible and Implementing Organizations

The responsible ministry is the Ministry of Works and Urban Development.

The implementing organization is the Ethiopian Roads Authority (ERA).

The organization chart of the implementing organization is shown in Annex-2

### 4. Items requested by the Government of Ethiopia

After discussions with the Team, both sides confirmed that the items requested by the Ethiopian side were shown in Annex-3.

JICA will assess the appropriateness of the request and will recommend to the Government of Japan for approval.

### 5. Japan's Grant Aid Scheme

5-1. The Ethiopian side understands the Japan's Grant Aid Scheme and necessary measures to be taken by the Government of Ethiopia. The Team explained the procedures for the Project described in Annex-4, 5.

5-2. The Ethiopian side will take the necessary measures, as described in Annex-6 for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

### 6. Schedule of the Study

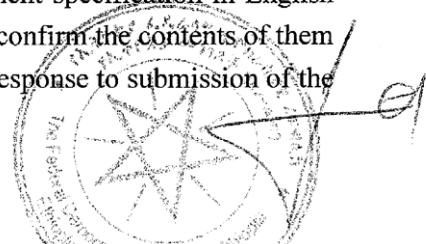
6-1. The Team will proceed with further studies in Ethiopia until December 21, 2009.

6-2. JICA will prepare the draft report and the draft equipment specification in English and send them through JICA Ethiopia office in order to confirm the contents of them by the Ethiopian side in the middle of March, 2010. In response to submission of the

46

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draft report, the Ethiopian side will submit the confirmation letter to JICA Ethiopia office within a week after the receipt of the report.

6-3.If the contents of the report are accepted in principle by the Government of Ethiopia, JICA will complete the final report and send it to the Government of Ethiopia by July, 2010.

#### 7. Other Relevant Issues

7-1.The Ethiopian side shall secure enough budget and personnel necessary for the operation and maintenance of the facilities implemented by the Project, including the periodical maintenance work after delivery of equipment.

7-2.Both sides confirmed that the tender documents including equipment specification should never be duplicated or released to any third parties before the signing of all the Contract(s) for the Project.

7-3.Both sides confirmed that the Alemgena District Road Management Contractor (DRMC) will remain to be the governmental organization under ERA and to be the entity for maintenance of the road and procured equipment for the Abay River Gorge, even if it is planned to be separated from ERA in the course of Business Process Reengineering in Ethiopia.

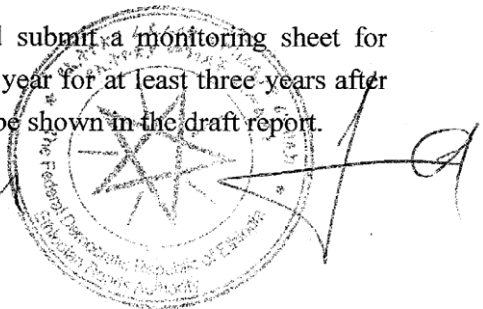
7-4.Both sides confirmed that the Ethiopian side would establish the depot for procured equipment both at Goha Tsion side and Dejen side.

7-5.Both sides confirmed that the delivery site of equipment would be Addis Ababa except the crushing plant and the asphalt plant which would be delivered, installed and conducted an initial operation test at the working site.

7-6.The Ethiopian side shall undertake necessary preparation works to install the crushing plant and the asphalt plant in Abay River Gorge such as clearance of the site, construction of the foundation, etc.

7-6.Both sides agreed that the Ethiopian side would submit a monitoring sheet for procured equipment to JICA Ethiopia office every year for at least three years after procurement. The proposed monitoring sheet shall be shown in the draft report.

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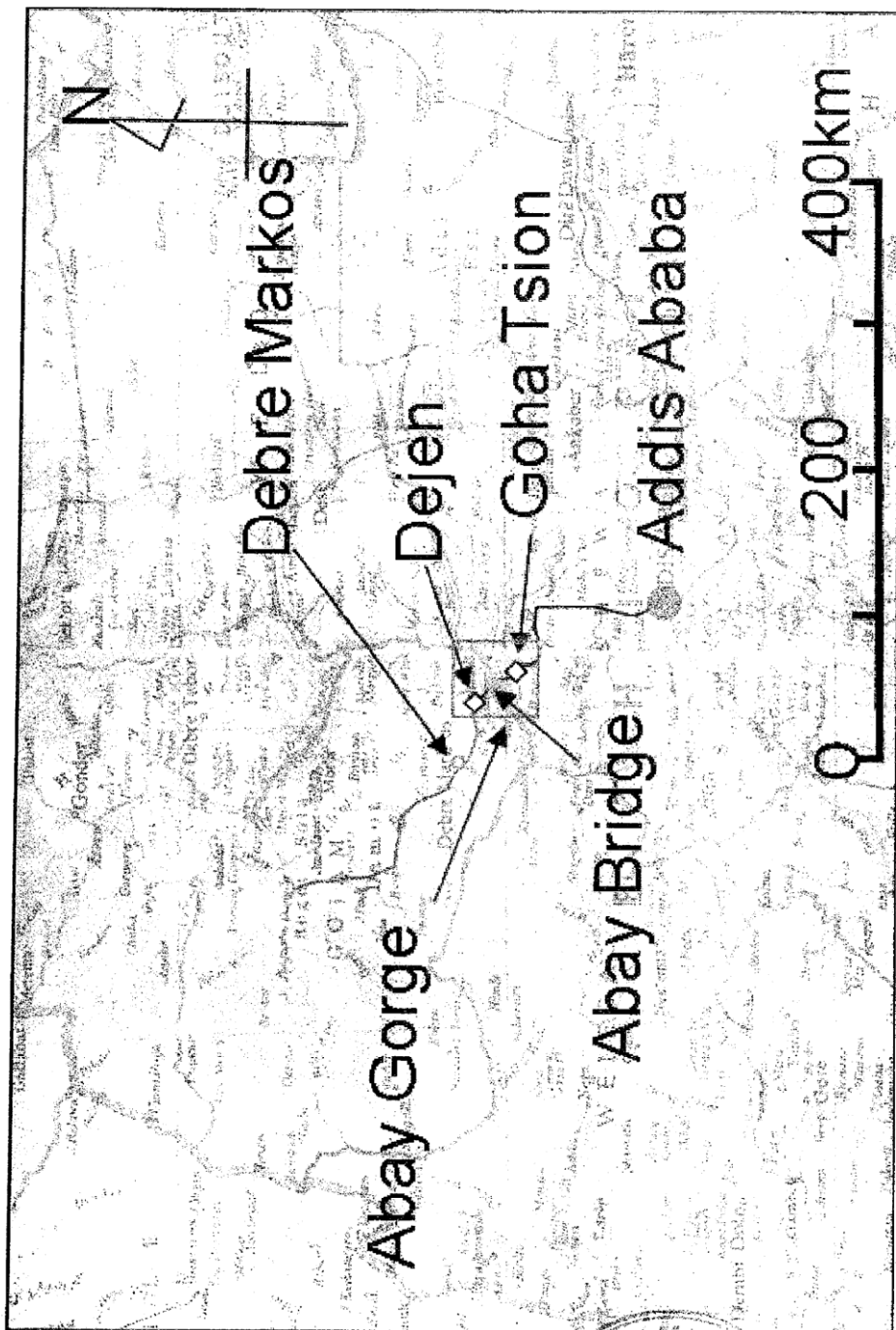
- Annex-1 Project Site
- Annex-2 Organization Chart (ERA)
- Annex-3 Equipment List
- Annex-4 Japan's Grant Aid
- Annex-5 Flow Chart of Japan's Grant Aid Procedures
- Annex-6 Major Undertakings to be taken by Each Government

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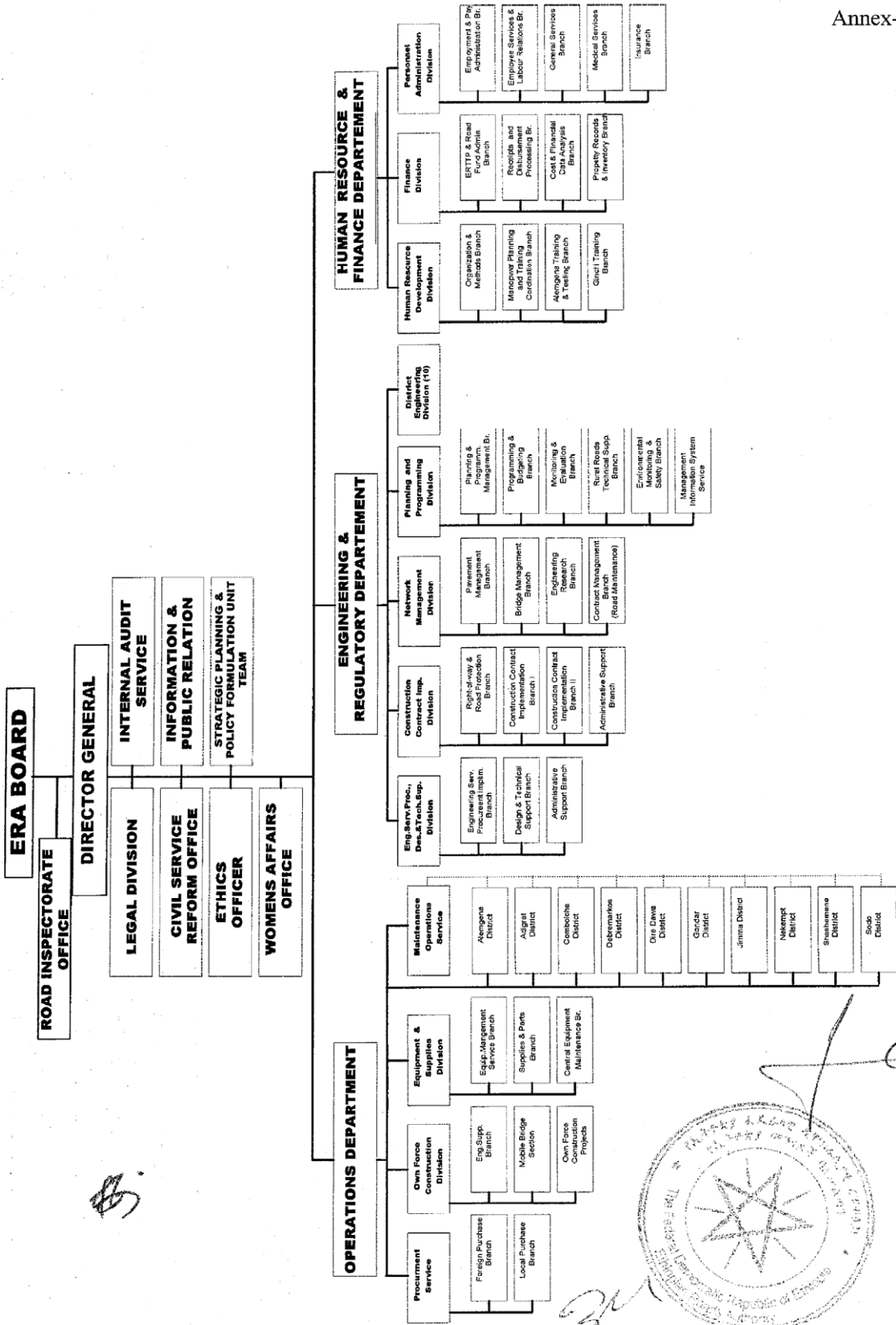


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# ETHIOPIAN ROADS AUTHORITY ORGANIZATIONAL CHART



Annex-2

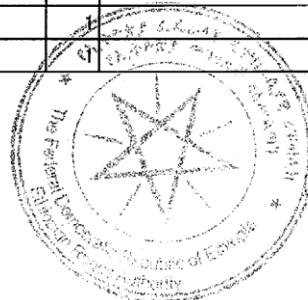


## Equipment List

No.	Item	Spec.	Qty.	Purpose
1	Excavator with Hydraulic Breaker	200kw, Bucket 1.4m <sup>3</sup>	2	excavating and loading of landslide
2	Wheel Excavator	0.8m <sup>3</sup>	2	excavating and loading of landslide
3	Bulldozer	300HP, Weight 37ton	2	dozer working of landslide
4	Motor Grader (one with Front Blade)	155HP, Blade 3.7m	2	reshaping roadbed and base course
5	Front End Loader (Wheel Loader)	178HP, Bucket 3.0m <sup>3</sup>	2	loading of landslide
6	Horizontal Boring Machine	φ 133	1	horizontal boring for drainage boring
7	Dump Truck	10m <sup>3</sup> , 15ton	14	hauling of landslide
8	Lowbed (Truck Trailer)	40ton	1	conveyance of heavy equipment
9	Compressor (L)	140kw	1	Air supply for Crawlwe Rock Drill
10	Compressor (S)	62.5kw	1	Air supply for Jack Hammer
11	Crawler Rock Drill	Rod 3,000mm, Air 16m <sup>3</sup> /min	1	drilling of Large lock
12	Jack Hammer	18kg	2	drilling of small lock
13	Numatic Roller (Tire Roller)	8.5-13ton, 70.5kw	1	compaction of asphalt surface
14	Road Roller	8-10ton	1	compaction of asphalt surface
15	Asphalt Finisher	4.5m	1	asphalt paving
16	Asphalt Distributor	6,000Lit	1	asphalt paving
17	Asphalt Plant	35ton/h	1	mix of hot asphalt concrete
18	Hot Mini Mixer	2-4m <sup>3</sup> /h	2	mix of hot asphalt concrete
19	Crushing Plant	35ton/h	1	making aggregate
20	Small Vehicle (Pick-up)	4WD, Double Cab	2	road patrol and survey
21	Small Vehicle (Station Wagon)	4WD, 7passengers	2	transportation of operators
22	Water Tank Truck	8,000Lit	1	water supply for roller, boring machine
23	Truck with Crane	10ton	1	carry of boring machine accessories
24	Total Station		2	survey of landslide
25	Digital Level		2	survey of landslide
26	Mobile Workshop		1	maintenance of equipment on sites
	Mechanic Tool Box Set (L)	144items	1	on bord equipment
	Mechanic Tool Box Set (S)	44items	1	on bord equipment
	Air Compressor Stationary	2.2kw	1	on bord equipment
	Bench Vice	100mm	1	on bord equipment
	Welding Generator	30-280A	1	on bord equipment
	Hydraulic Crane	3ton	1	on bord equipment
	Oxy-Acetyl, Welding / Cutting Outfit		1	on bord equipment
	Lubricating Equipment		1	on bord equipment
	Electric Equipment		1	on bord equipment
27	Maintenance Equipment		1	for workshop
	Mechanic Tool Box Set (L)	144items	1	
	Mechanic Tool Box Set (S)	44items	1	
	Air Compressor Stationary	2.2kw	1	
	Hydraulic Press with Accessories	55t	1	
	Floor Jack Light and Heavy	5, 15ton	1	
	Bench Vice	100mm	1	
	Welding Generator	30-280A	1	

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## JAPAN'S GRANT AID

The Government of Japan (hereinafter referred to as "the GOJ") is implementing the organizational reforms to improve the quality of ODA operations, and as a part of this realignment, a new JICA law was entered into effect on October 1, 2008. Based on this law and the decision of the GOJ, JICA has become the executing agency of the Grant Aid for General Projects, for Fisheries and for Cultural Cooperation, etc.

The Grant Aid is non-reimbursable fund provided to a recipient country to procure the facilities, equipment and 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. The Grant Aid is not supplied through the donation of materials as such.

### 1. Grant Aid Procedures

The Japanese Grant Aid is supplied through following procedures :

- Preparatory Survey
  - The Survey conducted by JICA
- Appraisal & Approval
  - Appraisal by the GOJ and JICA, and Approval by the Japanese Cabinet
- Authority for Determining Implementation
  - The Notes exchanged between the GOJ and a recipient country
- Grant Agreement (hereinafter referred to as "the G/A")
  - Agreement concluded between JICA and a recipient country
- Implementation
  - Implementation of the Project on the basis of the G/A



### 2. Preparatory Survey

#### (1) Contents of the Survey

The aim of the preparatory Survey is to provide a basic document necessary for the appraisal of 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 country necessary for the implementation of the Project.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, financial, social and economic point of view.

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- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of a outline design of the Project.
- Estimation of costs of the Project.

The contents of the original request by the recipient country are not necessarily approved in their initial form as the contents of the Grant Aid project. The Outline Design of the Project is confirmed based on the guidelines of the Japan's Grant Aid scheme.

JICA requests the Government of the recipient country to take whatever 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 organization of the recipient country which actually implements the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country based on the Minutes of Discussions.

(2) Selection of Consultants

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

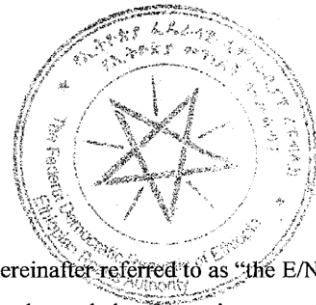
(3) Result of the Survey

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

**3. Japan's Grant Aid Scheme**

(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 country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions.



(2) 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 country to continue to work on the Project's implementation after the E/N and G/A.

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(3) Eligible source country

Under the Japanese Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When JICA and the Government of the recipient country or its designated authority deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals".

(4) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by JICA. This "Verification" is deemed necessary to fulfill accountability to Japanese taxpayers.

(5) Major undertakings to be taken by the Government of the Recipient Country

In the implementation of the Grant Aid Project, the recipient country is required to undertake such necessary measures as Annex.

(6) "Proper Use"

The Government of the recipient country is required to maintain and use properly and effectively the facilities constructed and the equipment purchased under the Grant Aid, to assign staff necessary for this operation and maintenance and to bear all the expenses other than those covered by the Grant Aid.

(7) "Export and Re-export"

The products purchased under the Grant Aid should not be exported or re-exported from the recipient country.

(8) Banking Arrangements (B/A)

a) The Government of the recipient country or its designated authority should open an account under the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). JICA will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

b) The payments will be made when payment requests are presented by the Bank to JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment



commissions paid to the Bank.

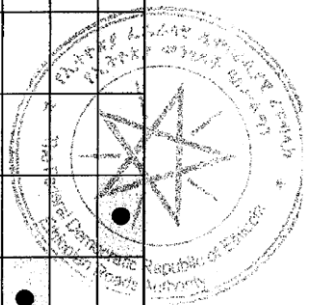
(10) Social and Environmental Considerations

A recipient country must carefully consider social and environmental impacts by the Project and must comply with the environmental regulations of the recipient country and JICA socio-environmental guidelines.



FLOW CHART OF JAPAN'S GRANT AID PROCEDURES

Stage	Flow & Works	Recipient Government	Japanese Government	JICA	Consultant	Contract	Others
Application	<p>(T/R : Terms of Reference)</p> <p>Request → Screening of Project → Evaluation of T/R → Project Identification Survey*</p>	●					
Project Formulation & Preparation	<p>Preparatory Survey</p> <p>Preliminary Survey* → Field Survey Home Office Work Reporting → *if necessary → Selection &amp; Contracting of Consultant by Proposal → Field Survey Home Office Work Reporting → Explanation of Draft → Final Report</p>	●	●	●	●		
Appraisal & Approval	<p>Appraisal of Project → Inter Ministerial Consultation → Presentation of Draft Notes → Approval by the Cabinet</p>		●	●			
Implementation	<p>(E/N: Exchange of Notes) (G/A: Grant Agreement) (A/P: Authorization to Pay)</p> <p>E/N and G/A → Banking Arrangement → Consultant Contract → Verification → Issuance of A/P → Detailed Design &amp; Tender Documents → Approval by Recipient Government → Preparation for Tendering → Tendering &amp; Evaluation → Procurement /Construction Contract → Verification → A/P → Construction → Completion Certificate → A/P → Operation → Post Evaluation Study</p>	●	●	●	●	●	●
Evaluation & Follow up	<p>Ex-post Evaluation → Follow up</p>	●	●	●			



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### Major Undertakings to be taken by Each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To ensure prompt customs clearance of the products and to assist internal transportation of the products in the recipient country		
	1) Marine (Land and Air) transportation of the Products from Japan to the recipient country	●	
	2) Tax exemption and custom clearance of the Products at the place of disembarkation in Ethiopia		●
	3) Internal transportation from the place of disembarkation to the delivery site in Addis Ababa	●	
2	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the purchase of the products and the services be exempted		●
3	To accord Japanese nationals 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 recipient country and stay therein for the performance of their work		●
4	To ensure that the products be maintained and used properly and effectively for the implementation of the Project		●
5	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project		●
6	To bear the following commissions paid to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●

(B/A : Banking Arrangement, A/P : Authorization to pay)

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## 資料 5 事業事前計画表（概略設計時）

## 5. 事業事前計画表（概略設計時）

### 事業事前計画表

1 案件名
エチオピア国 アバイ渓谷地すべり地帯における道路維持機材整備計画準備調査
2 要請の背景
<p>内陸国であるエチオピア連邦民主共和国（以下、「エ」国）では、物流の動脈は陸上輸送である。「エ」国は1997年に開始された道路セクター開発計画（Road Sector Development Program: RSDP）により道路整備を続け、2010年時点（フェーズ3終了時）の主要道の延長は50,242kmでありRSDP開始時の26,550kmに比べほぼ倍増している。協力対象路線の国道3号線は、RSDPでは改修・改良対象路線である。同路線は「エ」国内の穀倉地帯アムハラ州と市場である首都アディスアベバを結ぶ国内幹線であるばかりでなく、スーダンへ至る国際幹線でもある。近年ではスーダンからの原油材料の8割が同路線により工業地域であるアディスアベバ近郊へ運ばれている。国道3号線は、「エ」国の社会経済にとって重要な路線の一つである。国道3号線のアバイ渓谷区間は、延長40.45kmにもかかわらず高低差が1,500mもある急峻な地形のため、道路の幅員を十分に確保することができず、1948年に建設され老朽化の著しい旧アバイ橋とあいまって、長年にわたり3号線のボトルネックとなっていた。渓谷区間の道路幅員の拡幅と新アバイ橋の架け替えは、無償資金協力の第3次幹線道路改修計画として2009年1月竣工した。しかしながら道路の拡幅による土工事に加えて、不安定な渓谷の地質条件が原因となり、地すべり、斜面崩壊、落石、土石流など円滑な交通を妨げる多種多様な災害が発生することとなった。かかる状況の下、道路建設と既存道路の維持管理に取り組むエチオピア道路公社（ERA）及び同区間を担当するアテムガナ地方道路運営維持請負事務所は、同区間で発生している地すべり対策に派遣する機材の余裕がなく、国道3号線の道路機能を維持するため、「エ」国は、アバイ渓谷地すべり地帯における道路維持機材整備計画を要請した。</p>
3 プロジェクト全体計画概要
<p>(1) プロジェクト全体計画の目標（裨益対象の範囲及び規模）</p> <p>本プロジェクトによって機材が調達されることで、アバイ渓谷区間に地すべり対策機材を常駐させ、崩落土砂除去、道路補修等の地すべり対策を実施できるようになる。これにより国道3号線が当初計画の機能を維持し、国内物流とスーダンとの交易に貢献することで、「エ」国の社会経済の安定に寄与できる。</p> <p>裨益対象：国道3号線の幹線としての機能が維持される。</p> <p>直接受益者：国道3号線沿いのアムハラ州、オロミヤ州、アディスアベバの住民 （約4,864万人 財政経済開発省 2006年）</p> <p>間接受益者：「エ」国民（約7,710万人 世銀 2008年）</p> <p>(2) プロジェクト全体計画の成果</p> <p>① <u>国道3号線アバイ渓谷区間の地すべり対策機材が調達される。</u></p> <p>② 地すべり対策が実施される。</p> <p>(3) プロジェクト全体計画の主要活動</p> <p>ア 調達機材の運営・維持管理のための人員を配置する。</p>

<p>イ 調達機材を配置する施設を整備する。</p> <p>ウ 上記施設・機材を使用して国道3号線アバイ溪谷区間で地すべり対策を実施する。</p> <p>(4) 投入</p> <p>ア. 日本側 (=本案件) : 無償資金協力</p> <p>イ. 相手国側</p> <p>(ア) 調達機材の諸税確保 (特別予算として計上)</p> <p>(イ) 銀行手数料の確保</p> <p>(ウ) 必要な施設の整備 機材引渡し場所1箇所、機材駐機場2箇所、プラント設置用地2箇所</p> <p>(エ) 調達機材の運営・維持管理に必要な人員の確保</p> <p>(オ) アレムガナ地方事務所が実施する地すべり対策の運営・維持管理に係る経費の確保</p> <p>(5) 実施体制</p> <p>主管官庁 : 公共事業・都市開発省 (Ministry of Works and Urban Development)</p> <p>実施機関 : エチオピア道路公社 (ERA)</p>						
<p>4 無償資金協力案件の内容</p>						
<p>(1) サイト</p> <p>国道3号線アバイ溪谷区間 40.45km</p> <p>(2) 概要</p> <p>①同区間で地すべり対策を実施する機材の調達、②地すべり対策に必要なプラントの設置 (アスファルトプラント、骨材プラント各1箇所)</p> <p>(3) 相手国側負担事項</p> <p>①プラント基礎工事費 約330万円、②調達機材の諸税 約1.94億円、③銀行取扱手数料 約90万円</p> <p>(4) 概略事業費</p> <p>入札前なので事業費は非公開</p> <p>(5) 工期</p> <p>詳細設計・入札を含めて11.5ヶ月 (予定)</p> <p>(6) 貧困、ジェンダー、環境及び社会面の配慮</p> <p>なし</p>						
<p>5 外部要因リスク</p>						
<p>・プロジェクト対象区間で想定外に大規模な地すべりが発生しない。</p>						
<p>6 過去の類似案件からの教訓の活用</p>						
<p>なし</p>						
<p>7 プロジェクト全体計画事後評価にかかる提案</p>						
<p>(1) プロジェクト全体計画の目標達成を示す成果指標</p> <table border="1" data-bbox="215 1839 1377 2022"> <thead> <tr> <th data-bbox="215 1839 502 1939">成果指標</th> <th data-bbox="502 1839 938 1939">現状の数値 (地すべり被災が発生した時点で機材がない場合)</th> <th data-bbox="938 1839 1377 1939">計画値 (調達機材により地すべり対策が実施された場合)</th> </tr> </thead> <tbody> <tr> <td data-bbox="215 1939 502 2022">アバイ溪谷区間の通過時間</td> <td data-bbox="502 1939 938 2022">103分間</td> <td data-bbox="938 1939 1377 2022">52分間</td> </tr> </tbody> </table>	成果指標	現状の数値 (地すべり被災が発生した時点で機材がない場合)	計画値 (調達機材により地すべり対策が実施された場合)	アバイ溪谷区間の通過時間	103分間	52分間
成果指標	現状の数値 (地すべり被災が発生した時点で機材がない場合)	計画値 (調達機材により地すべり対策が実施された場合)				
アバイ溪谷区間の通過時間	103分間	52分間				



(2) その他の成果指標

なし

(3) 評価のタイミング

2013 年度以降（機材調達から 3 年後）

## 資料6 参考資料／入手資料リスト

6. 参考資料／入手資料リスト

調査名：エチオピア国 アバイ渓谷地すべり地帯における道路維持機材整備計画準備調査

番号	名称	形態	オリジナル ・コピー	発行機関	発行年
1	Alemgena Training & Testing Center Brochure	図書	オリジナル	ERA	2008年
2	Alemgena Training & Testing Center Detail Explanation	図書	オリジナル	ERA	—
3	エチオピア全土地図 (200万分の1)	図書	オリジナル	Ethiopian Mapping Agency	2007年9月
4	Equipment Owning & Operating Cost (December 2001)	図書	コピー	Almugena	2001年12月
5	TOURIST MAP OF ETHIOPIA(1:2,500,000)	図書	オリジナル	Ministry of Culture & Tourism	—
6	A Plan for Accelerated and Sustained Development to End Poverty (PASDEP)	図書	コピー	Ministry of Finance Economic Development	2006年9月
7	ROAD SECTOR DEVELOPMENT PLAN III	図書	コピー	ETHIOPIAN ROADS AUTHORITY	2007年9月
8	ANNUAL RURAL TRAFFIC MOVEMENT IN ETHIOPIA	図書	コピー	ETHIOPIAN ROADS AUTHORITY	2008年

## 資料7 ソフトコンポーネント計画書

## 7. ソフトコンポーネント計画書

本プロジェクトでソフトコンポーネントはなし。

## 資料 8 その他の資料・情報

## 調達機材運用報告書

調達機材の運用状況・稼働実績を JICA へ報告するために ERA は機材運用報告書を作成し、JICA エチオピア事務所に提出する。

作成期間：機材引き渡し後から少なくとも 3 年間

提出時期：機材引き渡し後から 1 年毎

**Machinery Inventory (example)**

Year 2012

Machinery Name Excavator Remarks Procured by Japanese Grant Aid

Serial No. XXX-XXXXXX

Construction Site / Workshop	Station No.	Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Abay Gorge	20.000-20.150	■	removal of land slide										
Abay Gorge	17.200-17.280	■	■	removal of land slide									
Workshop			■	periodical maintenance									
Abay Gorge	23.750-24.850			■	■	construction of diversion							