

資料4 討議議事録 (M / D)

**MINUTES OF DISCUSSION
ON THE PREPARATORY SURVEY
ON THE PROJECT FOR IMPROVEMENT
OF MACHINERY AND EQUIPMENT
FOR CONSTRUCTION OF RURAL AGRICULTURAL ROAD (PHASE 2)
IN THE KINGDOM OF BHUTAN**

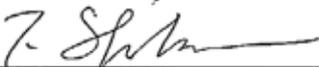
In response to the request from the Royal Government of Bhutan, the Government of Japan decided to conduct a Preparatory Survey on the Project for Improvement of Machinery and Equipment for Construction of Rural Agricultural Road (Phase 2) (hereafter referred to as "the Project") and entrusted the survey to the Japan International Cooperation Agency (hereafter referred to as "JICA").

JICA sent to the Kingdom of Bhutan (hereafter referred to as "Bhutan") the Preparatory Survey Team (hereafter referred to as "the Team"), headed by Mr. Takao Shibusawa, Director of Planning and Coordination Division, Rural Development Department, JICA. It is scheduled to stay in the country from 11th of May to 13th of June, 2009.

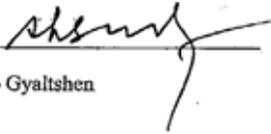
The Team held discussions with the officials concerned of the Royal Government of Bhutan and conducted a field survey.

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 work and prepare the Preparatory Survey Report.

Thimphu, 26th May 2009



Mr. Takao Shibusawa
Leader
Preparatory Survey Team
Japan International Cooperation Agency



Dasho Sherub Gyaltshen
Secretary
Ministry of Agriculture
Royal Government of Bhutan

ATTACHMENT

1. Objective of the Project

The objective of the project is to improve the accessibility in rural areas by procuring the machinery and equipment for farm roads in Bhutan.

2. Priority Districts

The Project will give the priority as shown in Annex-1.

3. Responsible and Implementing Agency

3-1. The Responsible Agency is the Ministry of Agriculture, the Royal Government of Bhutan.

3-2. The Implementing Agency is the Department of Agriculture, the Ministry of Agriculture, the Royal Government of Bhutan. The organization chart is shown in Annex-2.

3-3. Districts submit their proposals for lending construction machinery and equipment to the Ministry of Agriculture, and are responsible for implementing the construction works by using the machinery and equipment.

4. Items requested by the Royal Government of Bhutan

The Bhutanese side has requested items to complement the currently available machinery and equipment in Annex-3 for the implementation of the Project. JICA will assess the appropriateness of the request described in Annex-4 based on the results of the field survey and discussion, and will recommend the suitable machinery and equipment to the Government of Japan for approval. The final components of the Japan's Grant Aid, however, shall be decided after further studies.

5. Japan's Grant Aid Scheme

5-1. The Bhutanese side understands the Japan's Grant Aid Scheme explained by the Team, as described in Annex-5.

5-2. The Bhutanese 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 Survey

6-1. The consultants will proceed to further studies in Bhutan until 13th June, 2009.

6-2. JICA will prepare the draft report in English and dispatch a mission in order to explain its contents in October 2009.

6-3. In case that the contents of the report are accepted in principle by the Government of

Bhutan, JICA will complete the final report and send it to the Government of Bhutan by January 2010.

7. Other relevant issues

- 7-1. The Bhutanese side shall allocate necessary budget in order to construct farm roads which would be constructed by machinery and equipment procured by the Project.
- 7-2. The Ministry of Agriculture shall allocate necessary budget to the Central Machinery Unit (CMU) to maintain and operate the existing and the requested machinery.
- 7-3. The Ministry of Agriculture agreed that CMU would be staffed with necessary numbers of operators, mechanics and other officers.
- 7-4. The Ministry of Agriculture will submit the budget plan and the staffing plan which are mentioned in 7-2. and 7-3. to JICA Bhutan office no later than June 5th.
- 7-5. The Bhutanese side shall take EIA procedures for constructing farm roads as prescribed by Environment Act enacted in 2002.
- 7-6. Both sides agreed that the Ministry of Agriculture shall submit a operational plan of CMU machinery annually to JICA Bhutan office for at least 3 years after procuring the machinery in the Project. The plan would include not only for machinery procured by the Project but also the existing ones managed by CMU.

ANNEXES:

- Annex-1 District priority
- Annex-2 Organization chart of the Ministry of Agriculture
- Annex-3 Present Conditions of Construction Machinery and Equipment
- Annex-4 Requested Machinery and Equipment
- Annex-5 Japan's Grant Aid
- Annex-6 Major Undertaking to be taken by Each Government

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Annex-1

District priority

Sl.No	Dzongkhag	Criteria			Priority	10th FYP Projection (Km)	
		1 Connectivity to block centers	2 Arable Area	3 Vulnerability to food insecurity			
2	Lhuentse	A	A	A	A	105	597.5
4	Trashigang	A	A	A		75	
6	S/Jonkhar	A	A	A		75	
7	Sarpang	A	A	A		57.5	
8	Samtse	A	A	A		75	
11	Chukha	A	A	A		105	
16	Wangdue	A	A	A		105	
1	Mongar	A	B	A	B	112.3	492.9
5	Pemagatshel	A	B	A		105	
10	Dagana	A	B	A		75	
13	Trongsa	A	A	B		61.5	
14	Zhemgang	A	B	A		75	
15	Gasa	B	A	A		23	
20	Haa	A	A	B		41.1	
3	Trashigang	B	A	B	C	105	221
9	Tsirang	B	A	B		75	
12	Bumthang	B	A	B		41	
17	Punakha	B	B	B	D	75	188.6
18	Paro	B	B	B		75	
19	Thimphu	B	B	B		38.6	
Total						1500	

1) Connectivity to block centers

No. of block centers not connected to motorable road in the district

Total No. of block centers not connected to motorable road

A ≥ 3%, B < 3%

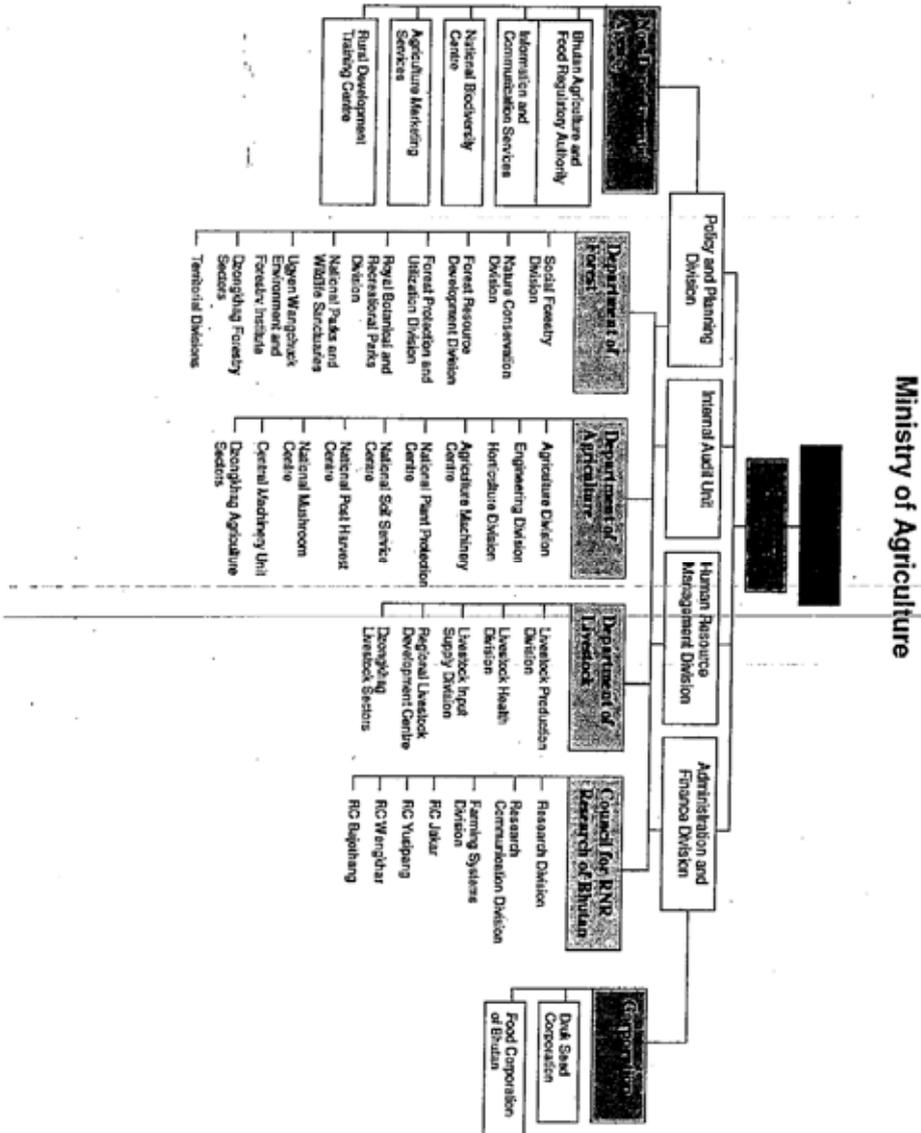
2) Arable agriculture land

A ≥ 5,000ha, B < 5,000ha

3) Vulnerability to food insecurity ("Vulnerability Analysis and Mapping", Policy and Planning Division, Ministry of Agriculture & World Food Programme, 2005)

A: Mean Principal Component Analysis (PCA) index < 0, B: Mean PCA index ≥ 0

Annex-2 Organization chart of the Ministry of Agriculture



Annex-3

Present Conditions of Construction Machinery and Equipment

	Type of Machine	Model	Maker	Delivery Year	Condition	Location/ Dzongkhag
1	Bull Dozer	CAT-D6R	Caterpillar	2006	Running	Lhuntse
2	Bull Dozer	CAT-D6R	Caterpillar	2006	Running	Haa
3	Bull Dozer	CAT-D6R	Caterpillar	2006	Running	Tashigang
4	Bull Dozer	CAT-D6R	Caterpillar	2006	Running	Mongar
5	Bull Dozer	CAT-D6R	Caterpillar	2006	Running	Mongar
6	Excavator	CAT320C	Caterpillar	2006	Running	Punakha
7	Excavator	CAT320C	Caterpillar	2006	Running	Tashigang
8	Excavator	CAT320C	Caterpillar	2006	Running	Haa
9	Excavator	CAT320C	Caterpillar	2006	Running	Mongar
10	Excavator	CAT320C	Caterpillar	2006	Running	Trongsa
11	Excavator	CAT311C	Caterpillar	2006	Running	Lhuntse
12	Excavator	CAT311C	Caterpillar	2006	Running	Mongar
13	Excavator	CAT311C	Caterpillar	2006	Running	Tashiyangtse
14	Excavator	CAT311C	Caterpillar	2006	Running	Lhuntse
15	Excavator	CAT311C	Caterpillar	2006	Running	Dugana
16	Excavator	CAT304CR	Caterpillar	2006	Running	Bumthang
17	Excavator	CAT304CR	Caterpillar	2006	Running	Mongar
18	Excavator	CAT304CR	Caterpillar	2006	Running	Mongar
19	Excavator	CAT304CR	Caterpillar	2006	Running	Mongar
20	Excavator	CAT304CR	Caterpillar	2006	Running	Mongar
21	Dump Truck(8ton)	FVR33G	ISUZU	2006	Running	Tashigang
22	Dump Truck(8ton)	FVR33G	ISUZU	2006	Running	Thimphu
23	Dump Truck(8ton)	FVR33G	ISUZU	2006	Running	Gelephu
24	Dump Truck(8ton)	FVR33G	ISUZU	2006	Running	Mongar
25	Dump Truck(8ton)	FVR33G	ISUZU	2006	Running	Tashiyangtse
26	Cargo Truck(8ton) with crane	FVR23P	ISUZU	2006	Running	Bumthang
27	Cargo Truck(4ton) with crane	FSR33L	ISUZU	2006	Running	Tashigang
28	Fuel Tanker	NPR66Q	ISUZU	2006	Running	Bumthang
29	Self Loading Truck	CXZ51Q	ISUZU	2006	Running	Tashigang
30	Wheel Loader	502IV-2	Kawasaki	2006	Running	Tashigang

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31	Wheel Loader	50ZIV-2	Kawasaki	2006	Running	Mongar
32	Wheel Loader	50ZIV-2	Kawasaki	2006	Running	Gelephu
33	Wheel Loader	50ZIV-2	Kawasaki	2006	Running	Mongar
34	Wheel Loader	50ZIV-2	Kawasaki	2006	Running	Bumthang
35	Wheel Tractor	L3000DT	Kubota	2006	Running	Bumthang
36	Wheel Tractor	L3000DT	Kubota	2006	Running	Haa
37	Wheel Tractor	L3000DT	Kubota	2006	Running	Lhuntse
38	Wheel Tractor	L3000DT	Kubota	2006	Running	Mongar
39	Wheel Tractor	L3000DT	Kubota	2006	Running	Gelephu
40	Vibration Roller	SV400D	Sakai	2006	Running	Mongar
41	Vibration Roller	SV400D	Sakai	2006	Running	Tashigang
42	Vibration Roller	SV400D	Sakai	2006	Running	Mongar
43	Vibration Roller	SV400D	Sakai	2006	Running	Bumthang
44	Vibration Roller	SV400D	Sakai	2006	Running	Bumthang
45	Handguide Roller	HV20	Sakai	2006	Running	Bumthang
46	Handguide Roller	HV20	Sakai	2006	Running	Bumthang
47	Handguide Roller	HV20	Sakai	2006	Running	Bumthang
48	Handguide Roller	HV20	Sakai	2006	Running	Bumthang
49	Service Truck	AVRURCFD22NWN	Nissan	2006	Running	Bumthang
50	Air Compressor	PDS130	Denyo	2006	Running	Haa
51	Air Compressor	PDS120	Denyo	2006	Running	Mongar
52	Air Compressor	PDS120	Denyo	2006	Running	Tashigang
53	Air Compressor	PDS120	Denyo	2006	Running	Tashigang
54	Air Compressor	PDS120	Denyo	2006	Running	Mongar
55	Air Compressor	PDS120	Denyo	2006	Running	Tashiyangtse
56	Excavator	ZAXIS 200LC	Hitach	under survey	under survey	under survey
57	Excavator	ZAXIS 200LC	Hitach	under survey	under survey	under survey
58	Excavator	ZAXIS 200LC	Hitach	under survey	under survey	under survey
59	Excavator	ZAXIS 200LC	Hitach	under survey	under survey	under survey
60	Excavator	320 LC-7	Hyunday	under survey	under survey	under survey
61	Excavator	PC200-5	Komatsu	under survey	under survey	under survey
62	Dump Truck(12ton)	CWB-45	Nissan	under survey	under survey	under survey
63	Dump Truck(13ton)	CWB-46	Nissan	under survey	under survey	under survey
64	Fuel Tanker	CMF-87	Nissan	under survey	under survey	under survey
65	Self Loading Truck	CWD-53	Nissan	under survey	under survey	under survey
66	Mahindra	Camper	Mahindra	under survey	under survey	under survey
67	Air Compressor	PDS175S	Airman	under survey	under survey	under survey

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68	Air Compressor	PDS176S	Airman	under survey	under survey	under survey
69	Air Compressor	XA125	Atlascopco	under survey	under survey	under survey
70	Air Compressor	XA125	Atlascopco	under survey	under survey	under survey
71	Air Compressor	XA125	Atlascopco	under survey	under survey	under survey
72	Air Compressor	XA125	Atlascopco	under survey	under survey	under survey
73	Air Compressor	XA125	Atlascopco	under survey	under survey	under survey
74	Air Compressor	XA125	Atlascopco	under survey	under survey	under survey
75	Backhoe Loader	4CX	JCB	under survey	under survey	under survey
76	Backhoe Loader	4CX	JCB	under survey	under survey	under survey
77	Workshop Van	CMP-87	Nissan	under survey	under survey	under survey

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Annex-4

Requested Machinery and Equipment

No.	Items	Specification	Quantity	Priority	Purpose of Use
1	Excavator	20t (0.8m ³) (with Breaker)	20	A	Excavating, digging, loading etc.
2	Excavator	12t (0.4m ³)	5	B	Excavating, digging, loading etc.
3	Excavator	6-7t (0.28m ³)	5	B	Cutting, digging side ditches and wall loading, slope formation etc.
4	Vibration Roller	11t	5	B	Vibration compacting work on the soil and gravel road
5	Air Compressor	7-8m ³ /min	5	A	For jack hammer at rocky job site
6	Fuel Tanker	3,000 L	1	B	For supplying fuel at the job site
7	Low Lorry	20t (Self Loader Truck)	1	A	Transportation of construction machine such as hydraulic excavator
8	Fuel-Storage Tank	3,000 L (with wheel)	10	B	For storing fuel at the job site
9	Mobile Workshop Van	4WD (with tools)	3	A	For repair and maintenance of machines at the job site
10	Double Cabin Vehicle	4WD	3	A	For supervision and inspection purpose at the job site, and transportation of service parts for maintenance and repair of machine
11	Workshop Equipment		2	B	
12	Jack Hammer	21-22kg	40	B	Drilling works for blasting hard rock
13	Forklift	3t	1	B	For lifting and transporting of heavy parts in the store
14	Forklift	1.5-2t	1	B	For lifting and transporting of medium parts in the store
15	Spare Parts (10%)	(lot)	1	A	

Annex-5

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 the law and the decision of the Government of Japan (hereinafter referred to as "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 to a recipient country to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles 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 conducted as follows-

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

- Appraisal & Approval
 - Appraisal by The GOJ and JICA, and Approval by the Japanese Cabinet
- Determination of 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 Survey is to provide a basic document necessary for the appraisal of the Project by JICA and the GOJ. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies concerned 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.
- Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- Preparation of a basic 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 Basic Design of the Project is confirmed considering the guidelines of the Japan's Grant Aid scheme.

JICA requests the Government of the recipient country to take whatever measures are necessary to ensure 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 in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

(2) Selection of Consultants

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

(3) Result of the Survey

The Report on the Survey is reviewed by JICA, and after the appropriateness of the Project is confirmed, JICA recommends the GOJ to appraise the implementation 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

The consultant firm(s) used for the Survey will be recommended by JICA to the recipient country to also work on the Project's implementation after the E/N and the G/A, in order to maintain technical consistency.

(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 secure 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.

(6) "Proper Use"

The Government of the recipient country is required to maintain and use the facilities constructed and the equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as 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

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account in 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 to the Bank.

(10) Social and Environmental Considerations

A recipient country must ensure the social and environmental considerations for the Project and must follow the environmental regulation of the recipient country and JICA socio-environmental guideline.

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Annex-6

Major Undertakings to be taken by Each Government

No.	Items	To be covered by the Grant	To be covered by Recipient side
1	To bear the following commissions to a bank of Japan for the banking services based upon the B/A 1) Advising commission of A/P 2) Payment commission		• •
2	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country 1) Marine(Air) transportation of the products from Japan to the recipient country 2) Tax exemption and custom clearance of the products at the port of disembarkation 3) Internal transportation from the port of disembarkation to the project site	•	• •
3	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		•
4	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contract		•
5	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		•
6	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for the transportation and installation of the equipment		•

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

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