附属書 GP-3

研修訓練プログラム

Training Program in 2016 – Basic Training for Sogd/Kulyab SETM's Engineers

Proposed Schedule of Basic Training for Sogd/Kulyab SETM's Engineers

Assumption

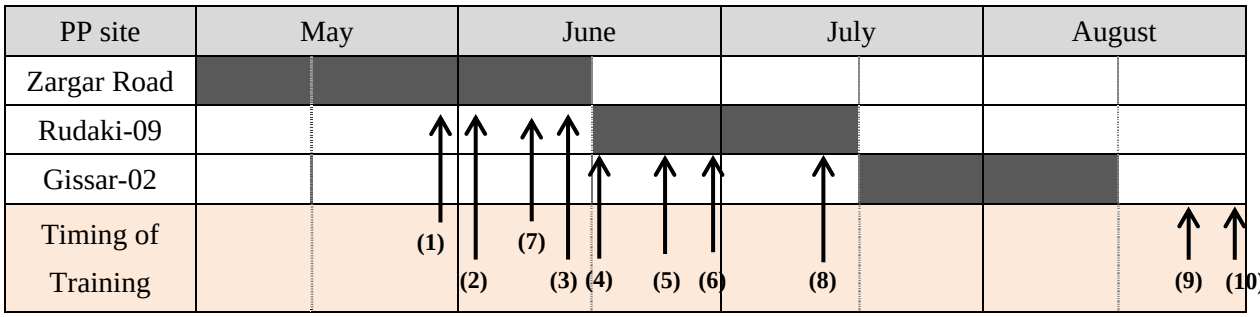
PP is being conducted during below period;

- ✓ Zargar Road in KT: Early May to Middle of June (1.5 month)
- ✓ Rudaki-09 in Gissar: Middle of June to Middle of July (1.0 month)
- ✓ Gissar-02 in Gissar: Middle of July to Middle of August (0.8 month)

Time	Training ID	Location	Subject	Target SETM	Period	Remarks
1st	(1)	Kurgan Tyube	Pavement Repair	Kulyab	May 30 ~ May31	1st Travel from Kulyab to Kurgan Tyube
	(2)	Kurgan Tyube	Pavement Inspection	Kulyab	June 1 ~ June3	
	(3)	Dushanbe	Pavement Repair	Sogud	June 13 ~ June 14	1st Travel from Sogud to Dushanbe
	(4)	Dushanbe	Pavement Inspection	Sogud	June 15 ~ June 17	
Follow-up	(5)	Kulyab	Pavement Inspection	Kulyab	June 22 ~ June 24	A Master Trainer and project national staff will travel to both SETMs for pavement inspection training.
	(6)	Sogud	Pavement Inspection	Sogud	June 29 ~ July 1	
2nd	(7)	Kurgan Tyube	Pavement Repair	Kulyab	June 6 ~ June 8	2nd Travel from Kulyab to Kurgan Tyube
	(8)	Dushanbe	Pavement Repair	Sogud	July 11 ~ July 13	2nd Travel from Sogud to Dushanbe
	(9)	Kurgan Tyube	Pavement Inspection	Kulyab	August 23 ~ August 25	3rd Travel from Kulyab to Kurgan Tyube
	(10)	Dushanbe	Pavement Inspection	Sogud	August 30 ~ September 1	3rd Travel from Sogud to Dushanbe

Proposed Period

Timing of Training



Basic Pavement Repair Training Program for Sogd and Kulyab SETM

- **1st Training: Class Room Lecture**

Day	Date		Menu	Time
	Training ID: (1)	Training ID: (3)		
1	May 30 (Mon)	June 13 (Mon)	Lecture-01: Introduction to Pavement Repair	10:00 - 14:00
			Lecture-02: Crushing Plant	
			Lecture-03: Quality Control	
			Lecture-04: Material Control at Asphalt Plant	
			Lecture-05: On-Site Lecture at Asphalt Plant	14:00 - 1600
2	May 31 (Tue)	June 14 (Tue)	Lecture-06: Pavement Method	10:00 - 16:00
			Lecture-07: Maintenance and Pavement Repair	
			Lecture-08: Quality control on Site	
			Lecture-09: Method Statement	

- **2nd Training: On-Site Lecture**

Day	Date		Menu	Time
	Training ID: (7)	Training ID: (8)		
1	June 6 (Mon)	July 11 (Mon)	Lecture-01: On the Job Training on PP Site	10:00 - 12:00
2	June 7 (Tue)	July 12 (Tue)	Lecture-02: On the Job Training on PP Site	10:00 - 16:00
3	June 8 (Wed)	July 13 (Wed)	Q&A, Skill and Knowledge Test	10:00 - 16:00

Basic Pavement Inspection Training Program for Sogd and Kulyab SETM

- **1st Training: IRI Measurement**

Day	Date		Menu	Time
	Training ID: (2)	Training ID: (4)		
1	June 1 (Wed)	June 15 (Wed)	Lecture-01: Introduction to IRI Measurement	10:00 - 12:00
			Lecture-02: Device Setup and Operation Check	13:00 - 14:00
			Lecture-03: Hump Calibration	14:00 - 16:00
2	June 2 (Thu)	June 16 (Thu)	Lecture-04: Speed Calibration	10:00 - 15:00
			Lecture-05: Analysis	15:00 - 16:00
3	June 3 (Fri)	June 17 (Fri)	Lecture-06: IRI Measurement Demonstration	10:00 - 12:00:
			Lecture-07: Analysis and Form1 Making	13:00 - 16:00

- **Follow-up Training**
  Training ID: (5) (6)

Day	Date		Menu	Time
	Training ID: (5)	Training ID: (6)		
1	June 22 (Wed)	June 29 (Wed)	Lecture-01: Hump Calibration and Speed Calibration	10:00 - 16:00
2	June 23 (Thu)	June 30 (Thu)	Lecture-02: IRI Measurement and Analysis	10:00 - 16:00
3	June 24 (Fri)	July 1 (Fri)	Lecture-03: IRI Measurement and Analysis	10:00 - 16:00

- **2nd Training: Visual Inspection**
  Training ID: (9) (10)

Day	Date		Menu	Time
	Training ID: (9)	Training ID: (10)		
1	August 23 (Tue)	August 30 (Tue)	Lecture-01: Review of IRI measurement Result	10:00 - 12:00
			Lecture-02: Visual Inspection Demonstration	13:00 - 16:00
2	August 24 (Wed)	August 31 (Wed)	Lecture-03: Visual Inspection Demonstration	10:00 - 12:00
			Lecture-04: Form 1 Completion and Graph Making	13:00 - 16:00
3	August 25 (Thu)	September 1 (Thu)	Lecture-05: Form 2 and 3 Completion	10:00 - 12:00
			Q&A, Skill and Knowledge Test	13:00 - 16:00

Proposed Schedule of Basic Training for Sogd/Kulyab SETM's Engineers

Assumption

PP is being conducted during below period;

- ✓ Zargar Road in KT: Early May to Middle of June (1.5 month)
- ✓ Rudaki-09 in Gissar: Middle of June to Middle of July (1.0 month)
- ✓ Gissar-02 in Gissar: Middle of July to Middle of August (0.8 month)

Time	Training ID	Location	Subject	Target SETM	Period	Remarks
1st	(1)	Kurgan Tyube	Pavement Repair	Kulyab	May 30 ~ May31	1st Travel from Kulyab to Kurgan Tyube
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	(3)	Dushanbe	Pavement Repair	Sogud	June 13 ~ June 14	1st Travel from Sogud to Dushanbe
	(4)	Dushanbe	Pavement Inspection	Sogud	June 15 ~ June 17	
Follow-up	(5)	Kulyab	Pavement Inspection	Kulyab	June 22 ~ June 24	A Master Trainer and project national staff will travel to both SETMs for pavement inspection training.
	(6)	Sogud	Pavement Inspection	Sogud	June 29 ~ July 1	
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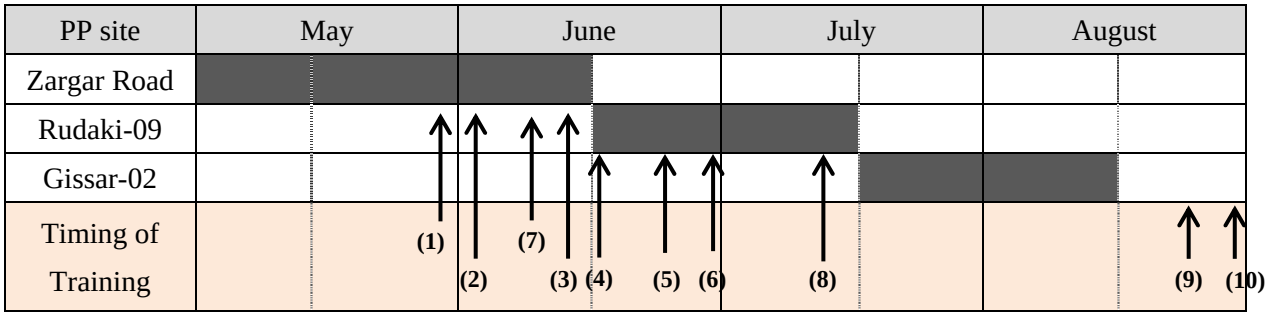
	(8)	Dushanbe	Pavement Repair	Sogud	July 11 ~ July 13	2nd Travel from Sogud to Dushanbe
	(9)	Kurgan Tyube	Pavement Inspection	Kulyab	August 23 ~ August 25	3rd Travel from Kulyab to Kurgan Tyube
	(10)	Dushanbe	Pavement Inspection	Sogud	August 30 ~ September 1	3rd Travel from Sogud to Dushanbe

Timing of Training



Basic Pavement Repair Training Program for Sogd and Kulyab SETM

- **1st Training: Class Room Lecture**

Day	Date		Menu	Time
	Training ID: (1)	Training ID: (3)		
1	May 30 (Mon)	June 13 (Mon)	Lecture-01: Introduction to Pavement Repair	10:00 - 14:00
			Lecture-02: Crushing Plant	
			Lecture-03: Quality Control	
			Lecture-04: Material Control at Asphalt Plant	
			Lecture-05: On-Site Lecture at Asphalt Plant	14:00 - 1600
2	May 31 (Tue)	June 14 (Tue)	Lecture-06: Pavement Method	10:00 - 16:00
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			Lecture-09: Method Statement	

- **2nd Training: On-Site Lecture**

Day	Date		Menu	Time
	Training ID: (7)	Training ID: (8)		
1	June 6 (Mon)	July 11 (Mon)	Lecture-01: On the Job Training on PP Site	10:00 - 12:00
2	June 7 (Tue)	July 12 (Tue)	Lecture-02: On the Job Training on PP Site	10:00 - 16:00
3	June 8 (Wed)	July 13 (Wed)	Q&A, Skill and Knowledge Test	10:00 - 16:00

Basic Pavement Inspection Training Program for Sogd and Kulyab SETM

- **1st Training: IRI Measurement**

Day	Date		Menu	Time
	Training ID: (2)	Training ID: (4)		
1	June 1 (Wed)	June 15 (Wed)	Lecture-01: Introduction to IRI Measurement	10:00 - 12:00
			Lecture-02: Device Setup and Operation Check	13:00 - 14:00
			Lecture-03: Hump Calibration	14:00 - 16:00
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			Lecture-05: Analysis	15:00 - 16:00
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- **Follow-up Training**
  Training ID: (5) (6)

Day	Date		Menu	Time
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1	June 22 (Wed)	June 29 (Wed)	Lecture-01: Hump Calibration and Speed Calibration	10:00 - 16:00
2	June 23 (Thu)	June 30 (Thu)	Lecture-02: IRI Measurement and Analysis	10:00 - 16:00
3	June 24 (Fri)	July 1 (Fri)	Lecture-03: IRI Measurement and Analysis	10:00 - 16:00

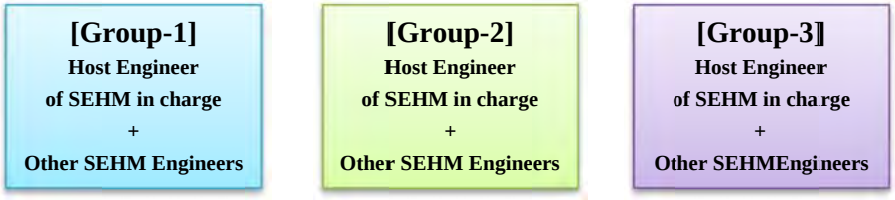
- **2nd Training: Visual Inspection**
  Training ID: (9) (10)

Day	Date		Menu	Time
	Training ID: (9)	Training ID: (10)		
1	August 23 (Tue)	August 30 (Tue)	Lecture-01: Review of IRI measurement Result	10:00 - 12:00
			Lecture-02: Visual Inspection Demonstration	13:00 - 16:00
2	August 24 (Wed)	August 31 (Wed)	Lecture-03: Visual Inspection Demonstration	10:00 - 12:00
			Lecture-04: Form 1 Completion and Graph Making	13:00 - 16:00
3	August 25 (Thu)	September 1 (Thu)	Lecture-05: Form 2 and 3 Completion	10:00 - 12:00
			Q&A, Skill and Knowledge Test	13:00 - 16:00

Training Program in 2016 – Technical Training through PP for SEHM Engineers

1 General Outline

During PP, engineers from all SEHM will participate in OJT training. In order for the training to be effective in a limited time, Grouping System will be applied. Thegrouping system image is illustrated below. A group is composed of a host engineer who is the engineer of SEHM in charge of PP.Other engineers who are not in charge of PP will actively take part in collaboration with the host engineer and SETM engineers who will also be supervising the operation.



Work Item	Work Schedule			
Cleaning				
Patching				
Leveling				
Paving				
Trainees	G-1 G-2 G-3	G-1 G-2 G-3	G-1 G-2 G-3	G-1 G-2 G-3
Supported by	SETM engineers JICA Experts	SETM engineers JICA Experts	SETM engineers JICA Experts	SETM engineers JICA Experts

2 Sharing of Supervisory Responsibility

Major Works (Levelling and Paving)

As the role of engineering supervision is heavier compared to Minor Works, the supervisory responsibility will be shared amongst the engineers of each group on a day to day basis. For an example if the road is required to have an overlay of 4 days and assume that 3 groups are participating, the host engineer will be in charge of day 1 and this will be followed by other SEHM engineers of Group 1 for day2, other SEHM engineers of Group 2 for day 3 and other SEHM engineers of Group 3 for day 4. However, the host engineer will be responsible for the entire work. The work will be supported by SETM engineers and JICA Experts during the entire operation. Within the Group, other SEHM engineers may split the supervisory responsibility within themselves upon discussion with the host engineer, SETM engineers and JICA Experts so that more engineers may share supervisory experience.

Minor Works (Cleaning and Patching)

Compared to Major Works, the role of engineering supervision is lighter and the entire operation will be implemented under the supervisory responsibility of the host engineer. However, other SEHM engineers will be trained with support from SETM engineers and JICA Experts on the work involved.

3 Grouping System

The grouping system will be as follows;

Kurgan Tyube SETM for Zargar Road- 4 groups

Trainer	SETM Chief Engineer	Mr. KholiqovMuzaffar
Host Engineer:	Bokhtar SEHM	Mr. Negmatov Hakim
Group A	Vaksh SEHM	Mr. SalimovFakhriddin
	Sarband SEHM	Mr. HazratqulovOdil
	J. balkhi (Rumi) SEHM	Mr. GhoibnazarovMahmadsharif
Group B	Khuroson SEHM	Mr. GulmurodovNurali
	Jomi SEHM	Mr. HikmatovKhairullo
	Yovon SEHM	Mr. AliqulovTaghoi
Group C	Jilikul SEHM	Mr. AnorovRajabali
	Qumsangir SEHM	Mr. KholiqovMahmadkarim
	Pyandzh SEHM	Mr. KholovSaidahmad
Group D	Qubodiyon SEHM	Mr. MuqadamiQubod
	Shahrituz SEHM	Mr. QurbonovMahmadrahim
	N. Khusrav SEHM	Mr. MurudovRuziboy

Gissar SETM for Rudaki- 03– 1 group

Trainer	SETM Production Manager	Mr. OdinavIsmoil
Host Engineer:	Rudaki SEHM	Ms. QodirovaZulkhumor
Group A	Gissar SEHM	Mr.Ismoilov Umed
	Varzob SEHM	Mr.Izatulloev Maqsud
	Tursunzoda SEHM	Mr.Nuralliev Minbobo
	Norak SEHM	Mr.Fayzalov Sharofiddin

Gissar SETM for Vahdat local road – 2 group

Trainer	SETM Production Manager	Mr. OdinavIsmoil
Host Engineer:	Vahdat SEHM	Mr. Tabarov Hakimali
Group B	Fayzobod SEHM	Mr. Nematov Odil
	Rogun SEHM	Mr. Raupov Dosti
	Sharinav SEHM	Mr. Rustamov Ibodullo

附属書 **GP-4**

プロジェクト・デザイン・マトリクス（**Version 1, 2, 3, 4**）

LOGICAL FRAMEWORK (PROJECT DESIGN MATRIX: PDM) Version 1

PROJECT TITLE: Project for Improvement of Road Maintenance	DURATION: 31 months	PDM Ver.1
TARGET GROUP: 22 SEHM[*1]s and 2 SETMs [*2] in Gissar and Kurgan – Tyube and Ministry of Transport	TARGET AREA: International & Republican roads in Gissar and Kurgan-Tyube	DATE: 8-Jan.-2014

[*1]SEHM: State Enterprise on Highway Management, [*2] SETM: State Enterprise of Transport Management

Narative Summary	Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal Pavement Condition of the roads under control of MOT in the target area is improved.			
Project Purpose Implementation capacity for road maintenance is improved.	1. Road inspection according to the revised guidelines is conducted at least 3 times by all target SEHMs by the end of the Project. 2. At least 5.0 Km length of road repairing is implemented at the target SEHMs according to the revised guidelines by the end of the project.	1. Road Inspection Record 2. Road repairing Record	-Current socio-political situation is not changed drastically. -Policy including the budge allocation for the road maintenance and repair is maintained.
Outputs 1. Road inspection skills of the target SEHMs are improved.	1.1 Road Inspection Guidelines with the attached Roughness Survey Manual are revised within 6 months after commencement of the project. 1.2 Revised Road Inspection Guidelines are finalized within 11 months after commencement of the project. 1.3 Roughness indexes of the roads in the target area are collected by the 2 target area are collected by the 2 target SETMs within 13 months after commencement of the project. 1.4 More than 90% of	1.1 Revised Inspection Guidelines 1.2 Final version of revised Inspection Guidelines 1.3 Roughness Survey Report 1.4 Inspection Record and its assessment summary 1.5 Attendance records of	- Sufficient number of the engineers and operators of the target SEHMs is kept.

<table>
<tr>
<td></td>
<td>inspection results by the target 22 SEHMs is assessed accurate by the JICA experts by the end of the project.
1.5 The number of participants of each workshop reaches as follows:
<table>
<tr><td>Workshop [Activity No]</td><td>No.</td></tr>
<tr><td>Summary of Roughness Survey [1.5]</td><td>10</td></tr>
<tr><td>Introduction of Revised Road Inspection Guidelines [1.10]</td><td>50</td></tr>
</table>
</td>
<td>workshops</td>
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<tr>
<td>2. Road repairing skills of the target SEHMs are improved.</td>
<td>2.1. Road Repairing Guidelines are revised within 6 months after commencement of the project.
2.2. Revised Record Repairing Guidelines are finalized within 22 months after commencement of the project.
2.3. More than 80% of the training participants passes the post-training test.
2.4. More than 80% of the result of the road repairing works #2 meet requirements of time, cost, quality, and safety specified in the contracts/plans
2.5. The number of participants of each workshop reaches as follows:
<table>
<tr><td>Workshop [Activity No.]</td><td>No.</td></tr>
<tr><td>Introduction of Revised Road Repairing Guidelines [2.8]</td><td>50</td></tr>
<tr><td>Feedback on road repairing works #2 [2.11]</td><td>50</td></tr>
</table>
</td>
<td>2.1 Revised Road and Repairing Guidelines

2.2 Final version of revised Road Repairing Guidelines

2.3 Test record and report

2.4 Repairing record and its assessment summary

2.5 Attendance records of workshops</td>
<td></td>
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</table>

Activities	**Inputs**		
1.1 To review the existing road inspection guidelines. 1.2 To revise the Road inspection Guidelines with the attached Roughness Survey Manual. 1.3 To conduct trainings (in each region) on Roughness Survey for the target 2 SETMs. 1.4 To carry out Roughness Survey on the roads in the target area. 1.5 To organize a workshop (in Dushanbe) to summarize the results of Roughness Survey with the target 2 SETMs and MOT. 1.6 To file the results of Roughness Survey 1.7 To conduct trainings (in each region) on road inspection according to the revised Road Inspection Guidelines for the selected 2 SEHMs from each target SETM. 1.8 To conduct road inspection on the international and republican roads under the jurisdiction of the selected 4 SEHMs. 1.9 To revise the road insection guidelines based on the results of the road inspection work (1.8) 1.10 To organize workshops (in each region) to introduce the revised Road inspection Guidelines for the target 18 SEHMs, 2 SETMs and MOT. 1.11 To conduct road inspection on the roads in the target area at the target 22 SEHMs.	**Inputs from the Japanese side** **1. Experts** a) Leader/Road Maintenance Expert 1 b) Road inspection Expert 1 c) Roughness Survey Expert d) Road Repairing Supervision Expert 1 e) Road Repairing Supervision Expert 2 f) Road Maintenance Expert 2/ Road Inspection Expert 2 g) Interpreters **2. Equipment** Equipment for roughness survey (2 sets) **3. Expenses for kick-off, mid-term and final seminars** **(Inputs other than indicated here will be determined through mutual consultation between JICA and MOT during the implementation of the Project, as necessary.)**	**Inputs from the Tajikistan side** **1. Counterparts for the Project** a) Project Director b) Project Manager c) Counterparts **2. Office Facilities** a) In the building of MOT for the Project with office furniture and utilities such as telephone line, electricity, etc. b) In the building of SETM located in Kurgan-Tyube with office furniture and utilities such as telephone line, electricity, etc. **3. Running Expenses** Necessary for the implementation of the Project including travel expenses and allowances for the participants of the trainings and workshops and expenses for the road repairing works.	

2.1 To review the existing Road Repairing Guidelines. 2.2 To revise the Road Repairing Guidelines 2.3 To conduct trainings (in each region) on road repairing according to the revised Road repairing Guidelines for the target 22SEHMs. 2.4 To provide support and advice on planning of the road repairing work #1 (in each region). 2.5 To implement an on-site technical instruction (in each region) for a road repairing work #1 2.6 To analyze the results of road repairing works #1, such as repairing materials and procedures. 2.7 To revise the Road repairing Guidelines based on the results of the analysis (2.6) 2.8 To organize workshops (in each region) to introduce the revised Road Repairing Guidelines with the target 20 SEHMs, 2 SETMs and MOT. 2.9 To plan the road repairing work #2 in the target areas. 2.10 To monitor and give technical advice on the road repairing works #2 in the target areas. 2.11 To organize workshops (in each region) to give feedbacks on the results of read repairing works #2, such as repairing materials and procedures for the target 22 SEHMs, 2 SETMs and MOT.			**Pre-conditions Tajikistan, especially the target area, is continuously safe enough for JICA experts to implement the activities.**

LOGICAL FRAMEWORK (PROJECT DESIGN MATRIX: PDM) Version 2

PROJECT TITLE: Project for Improvement of Road Maintenance	DURATION: 31 months	PDM Ver.2
TARGET GROUP: 22 SEHM[*1]s and 2 SETMs [*2] in Gissar and Kurgan – Tyube and Ministry of Transport	TARGET AREA: International & Republican roads in Gissar and Kurgan-Tyube	DATE: 24-Nov.-2015

[*1]SEHM: State Enterprise on Highway Management, [*2] SETM: State Enterprise of Transport Management

Narative Summary	Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal Pavement Condition of the roads under control of MOT in the target area is improved.			
Project Purpose Implementation capacity for road maintenance is improved.	1. Road inspection according to the revised guidelines is conducted at least 3 times by all target SEHMs by the end of the Project. 2. At least 5.0 Km length of road repairing is implemented at the target SEHMs according to the revised guidelines by the end of the project.	1. Road Inspection Record 2. Road repairing Record	-Current socio-political situation is not changed drastically. -Policy including the budge allocation for the road maintenance and repair is maintained.
Outputs 1. Road inspection skills of the target SEHMs are improved.	1.1 Road Inspection Guidelines with the attached Roughness Survey Manual are revised within 6 months after commencement of the project. 1.2 Revised Road Inspection Guidelines are finalized within 11 months after commencement of the project. 1.3 Roughness indexes of the roads in the target area are collected by the 2 target area are collected by the 2 target SETMs within 13 months after commencement of the project. 1.4 More than 90% of inspection results by the target 22 SEHMs is	1.1 Revised Inspection Guidelines 1.2 Final version of revised Inspection Guidelines 1.3 Roughness Survey Report 1.4 Inspection Record and its assessment summary 1.5 Attendance records of workshops	- Sufficient number of the engineers and operators of the target SEHMs is kept.

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Activities	**Inputs**		
1.1 To review the existing road inspection guidelines. 1.2 To revise the Road inspection Guidelines with the attached Roughness Survey Manual. 1.3 To conduct trainings (in each region) on Roughness Survey for the target 2 SETMs. 1.4 To carry out Roughness Survey on the roads in the target area. 1.5 To organize a workshop (in Dushanbe) to summarize the results of Roughness Survey with the target 2 SETMs and MOT. 1.6 To file the results of Roughness Survey 1.7 To conduct trainings (in each region) on road inspection according to the revised Road Inspection Guidelines for the selected 2 SEHMs from each target SETM. 1.8 To conduct road inspection on the international and republican roads under the jurisdiction of the selected 4 SEHMs. 1.9 To revise the road insection guidelines based on the results of the road inspection work (1.8) 1.10 To organize workshops (in each region) to introduce the revised Road inspection Guidelines for the target 18 SEHMs, 2 SETMs and MOT. 1.11 To conduct road inspection on the roads in the target area at the target 22 SEHMs.	**Inputs from the Japanese side** **1. Experts** a) Leader/Road Maintenance Expert 1 b) Road inspection Expert 1 c) Roughness Survey Expert d) Road Repairing Supervision Expert 1 e) Road Repairing Supervision Expert 2 f) Road Maintenance Expert 2/ Road Inspection Expert 2 g) Interpreters **2. Equipment** Equipment for roughness survey (2 sets) Equipment for test equipment for day to day quality control tests at asphalt plant (2sets) **3. Expenses for kick-off, mid-term and final seminars** **(Inputs other than indicated here will be determined through mutual consultation between JICA and MOT during the implementation of the Project, as necessary.)**	**Inputs from the Tajikistan side** **1. Counterparts for the Project** a) Project Director b) Project Manager c) Counterparts **2. Office Facilities** c) In the building of MOT for the Project with office furniture and utilities such as telephone line, electricity, etc. d) In the building of SETM located in Kurgan-Tyube with office furniture and utilities such as telephone line, electricity, etc. **3. Running Expenses** Necessary for the implementation of the Project including travel expenses and allowances for the participants of the trainings and workshops and expenses for the road repairing works.	

2.1 To review the existing Road Repairing Guidelines. 2.2 To revise the Road Repairing Guidelines 2.3 To conduct trainings (in each region) on road repairing according to the revised Road repairing Guidelines for the target 22SEHMs. 2.4 To provide support and advice on planning of the road repairing work #1 (in each region). 2.5 To implement an on-site technical instruction (in each region) for a road repairing work #1 2.6 To analyze the results of road repairing works #1, such as repairing materials and procedures. 2.7 To revise the Road repairing Guidelines based on the results of the analysis (2.6) 2.8 To organize workshops (in each region) to introduce the revised Road Repairing Guidelines with the target 20 SEHMs, 2 SETMs and MOT. 2.9 To plan the road repairing work #2 in the target areas. 2.10 To monitor and give technical advice on the road repairing works #2 in the target areas. 2.11 To organize workshops (in each region) to give feedbacks on the results of read repairing works #2, such as repairing materials and procedures for the target 22 SEHMs, 2 SETMs and MOT. 2.11 To carry out training on appointed laboratory technicians to be able to conduct day to day quality control tests using testing equipment provided by JICA			**Pre-conditions** **Tajikistan, especially the target area, is continuously safe enough for JICA experts to implement the activities.**

LOGICAL FRAMEWORK (PROJECT DESIGN MATRIX: PDM) Version 3

PROJECT TITLE: Project for Improvement of Road Maintenance	DURATION: Originally 31 months from Oct 2013 to May 2016, Extended for 6 months to November 2016	PDM Ver.3
TARGET GROUP: 22 SEHM[*1]s and 2 SETMs [*2] in Gissar and Kurgan – Tyube and Ministry of Transport (MOT) (original target group), 6 SEHMs and 2 SETMs in Sogd and Kulyab (additional target group in the extended period)	TARGET AREA: International & Republican roads in Gissar and Kurgan-Tyube (original target area) and in Sogd and Kulyab (additional target area)	DATE: 24-May-2015

[*1]SEHM: State Enterprise on Highway Management, [*2] SETM: State Enterprise of Transport Management

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal Pavement condition of the roads under control of MOT in the target area is improved.	1. By the end of 2019, at least 30 km and 15 km of lengths of road repairing is implemented by hot-mix asphalt at the original and additional target areas respectively according to the Road Repairing Guidelines 2. The average Road Repair Index (RRI) of roads repaired under 1 above in the original target area has a reduction of at least 60% compared to the same before repairing 3. The average IRI of the roads repaired under 1 above in the additional target area has a reduction of at least 50 % compared to the same before repairing	1. Road maintenance record sheet of each SETM (monthly and yearly) 2. 2&3 Form 1 of Road Inspection Guideline Final Version	
Project Purpose Implementation capacity for road maintenance is improved.	1. At least 90% of the results of roughness survey at original target 22 SEHMs, using the revised Guidelines is assessed accurate by the JICA experts by the end of the Project 2. At least 80% of visual inspection results by original	1. & 2. Road Inspection Record and its assessment summary 3. Repairing record and its assessment	-Current socio-political situation is not changed drastically. -Policy including the budget

	target 22 SEHMs, using the revised Guidelines is assessed accurate by the JICA experts by the end of the Project 3. At least 80% of results of the road repairing works #2 by three fourths of original target SEHMS, planned based on the results of the road inspection and implemented according to the revised Guidelines, meet requirements of time, cost, quality, and safety specified in the plans 4. Road Inspection and Repairing Guidelines for SETM/SEHM revised through the Project are approved by MOT by the end of the Project	summary 4. Date of approval by the First Deputy Minister Head of Main Depart, MOT	allocation for the road maintenance and repair is maintained. -Road repairing equipment to use hot-mix asphalt is available for additional 2SETMs by the end of 2017
Outputs 1. Road inspection[*4] skills of the target SEHMs are improved.	1a.Road Inspection Guidelines for SETM/SEHM are revised with the newly developed Roughness Survey Manual by April 2014 1b. International Roughness Index (IRI) of the roads in the original target area is collected according to the revised Guidelines by the original target 2 SETMs in coordination with the original target 22 SEHMs at least twice by the end of the Project 1c. Visual inspection according to the revised Guideline is conducted at least twice by all original target SEHMs by the end of the Project 1d. Road Inspection Guidelines for SETM/SEHM are finalized by September 2016	1a Revised Inspection Guidelines 1b. Roughness Survey Report 1c. Inspection Record and its assessment summary 1d. Final version of revised Guidelines submitted to MOT 1e. Inspection Record 1f. Test record and report	-Sufficient number of the engineers and operators of the target SEHMs is kept.

	for submission to MOT, reflecting feedbacks from the road inspections (roughness survey and visual inspection) in the target area 1e. Training of IRI measurement and visual inspection for additional 2 SETMs and 6 SEHMs were conducted at the additional target area by the Master Trainers for Inspection from the original target SETMs/SEHMs, using the revised Guidelines 1f. At least 80% of the training participants from additional target SETM and SEHMs pass the post-training test on basic elements of pavement inspection		
2. Road repairing[*5] skills of the target SEHMs are improved.	2a. Road repairing guidelines for SETM/SEHM are revised by April 2014 2b. At least 80% of the training participants from original target SETM passes the post-training test on road repairing to use hot-mix asphalt 2c. At least 5.0 km length of road repairing (#1 and #2) is implemented by at least 80% of the original target SEHMs according to the revised Guidelines by the end of the Project 2d. Road Repairing Guidelines for SETM/SEHM are finalized by September 2016 for submission to MOT reflecting the feedbacks from road repairing works #1 and #2	2a. Revised Road and Repairing Guidelines 2b. Test record and report 2c. Road Repairing record 2d. Final version of revised Guidelines submitted to MOT 2e&2f. Test record and report	

	2e. All the appointed laboratory technicians of the asphalt plants in the target SETMs score at least 70 out of 100 points in the post-training tests 2f. At least 80% of the training participants from additional target 2 SETM and 6 SEHMs passes the post-training test on basic elements of pavement repair by the end of the Project		

*[3] Road maintenance means pavement maintenance, *[4] Road inspection means pavement inspection
*[5] Road repairing means pavement repairing

Activities	**Inputs**		
1.1 To review the existing Road Inspection Guidelines. 1.2 To revise the Road Inspection Guidelines with the attached Roughness Survey Manual. 1.3 Conduct trainings (in each region) on Roughness Survey for the original target 2 SETMs and 22 SEHMs. 1.4 Carry out Roughness Survey on the roads in the original target area according to the revised Guidelines by the target 2 SETMs in coordination with the original target 22 SEHMs. 1.5 Organize a workshop (in Dushanbe) to summarize the results of Roughness Survey with the target 2 SETMs, 22 SEHMs and MOT. 1.6 File the results of	**<Japanese side>** **1. Experts** a) Leader/Road Maintenance Expert 1 b) Road inspection Expert 1 c) Roughness Survey Expert d) Road Repairing Supervision Expert 1 e) Road Repairing Supervision Expert 2 f) Road Maintenance Expert 2/ Road Inspection Expert 2 g) Interpreters **2. Equipment** Equipment for roughness survey (2 sets) **3. Expenses for kick-off, mid-term and final seminars** (Inputs other than indicated here will be	**<Tajikistan side>** **1. Counterparts for the Project** a) Project Director b) Project Manager c) Counterparts **2. Office Facilities** a) In the building of MOT for the Project with office furniture and utilities such as telephone line, electricity, etc. b) In the building of SETM located in Kurgan-Tyube with office furniture and utilities such as telephone line, electricity, etc. **3. Running Expenses**	-Natural disaster which affect the activities of the Project does not occur -Security situation of Tajikistan which limits the activities of the JICA experts, especially in the target area, does not deteriorate compared with the same in December 2015 <u>Pre-Condition</u> Tajikistan especially the target area is continuously

Roughness Survey (IRI data) by the original target 2 SETM in the prescribed form of the revised Guidelines 1.7 Conduct trainings (in each region) on road inspection according to the revised Road Inspection Guidelines for the original target 22 SEHMs and 2 SETMs. 1.8 Conduct visual inspection on the roads in the original target area at the original target 22 SEHMs, according to the revised Guidelines. 1.9 Revise the Road Inspection Guidelines based on the results of the road inspection works (Act. 1.4 & 1.8) 1.10 Organize workshops (in each region) to introduce the revised Guidelines for the original target 22 SEHMs, 2 SETMs and MOT. 1.11 Conduct road inspection (i.e. roughness survey, including filing results, and visual inspection) in the original target area at the original target 22 SEHMs according to the revised Guidelines. 1.12 Finalize the Road Inspection Guidelines based on the results of the road inspection works (Act. 1.11). 1.13 Organize workshops (in each region) to summarize	determined through mutual consultation between JICA and MOT during the implementation of the Project, as necessary.)	Necessary for the implementation of the Project including travel expenses and allowances for the participants of the trainings and workshops and expenses for the road repairing works.	safe enough for JICA experts to implement the activities

the results of road inspection and to introduce the finalized Road Inspection Guidelines for the target SEHMs, SETMs and MOT. 1.14 Certify Master Trainers for road inspection from the staff of the original target SETMs/SEHMs 1.15 Monitor and give technical advice on training conducted by the Master Trainers for additional target 2 SETMs and 6 SEHMs on basic elements of road inspection at the additional target area.			
2.1 Review the existing Road Repairing Guidelines. 2.2 Revise the Road Repairing Guidelines to improve pavement maintenance 2.3 Conduct trainings (in each region) on road repairing according to the revised Guidelines for the original target 22SEHMs. 2.4 Provide support and advice on planning of the road repairing work #1 (in each region) according the revised Guidelines. 2.5 Implement an on-site technical instruction (in each region) for a road repairing work #1 according the revised Guidelines at the selected SEHMs from the original target 2 SETMs. 2.6 Analyze the results of road repairing works #1, such as			

repairing materials and procedures. 2.7 Revise the Road Repairing Guidelines further based on the results of the analysis (Act. 2.6) 2.8 Organize workshops (in each region) to introduce the revised Guidelines with the original target 22 SEHMs, 2 SETMs and MOT. 2.9 Plan the road repairing work #2 in the original target area by the selected target SEHMs according to the revised Guidelines reflecting the results of road inspection (Act. 1.8). 2.10 Monitor and give technical advice on the road repairing works #2. 2.11 Finalize the Road Repairing Guidelines based on the results of the road repairing works #2. 2.12 Organize workshops (in each region) to give feedbacks on the results of road repairing works #2, such as repairing materials and procedures, and to introduce the finalized Road Repairing Guidelines for the target SEHMs, SETMs and MOT. 2.13 Carry out training on appointed laboratory technicians from each target SETM to be able to conduct day to day quality control test at the asphalt plant. 2.14 Assist the original target			

SETMs/SEHMs in training additional 2 SETMs and 6 SEHMs on basic elements of pavement repair using road repairing works #2 in 2016. 2.15 Certify trainers for specific techniques for road repairing from the staff of the original target SETMs/SEHMs.			

LOGICAL FRAMEWORK (PROJECT DESIGN MATRIX: PDM) 4

PROJECT TITLE: Project for Improvement of Road Maintenance	DURATION: Originally 31 months from Oct 2013 to May 2016, Extended for 6 months to November 2016	PDM Ver.4
TARGET GROUP: 22 SEHM[*1]s and 2 SETMs [*2] in Gissar and Kurgan – Tyube and Ministry of Transport (MOT) (original target group), 6 SEHMs and 2 SETMs in Sogd and Kulyab (additional target group in the extended period)	TARGET AREA: International & Republican roads in Gissar and Kurgan-Tyube (original target area) and in Sogd and Kulyab (additional target area)	DATE: 22-Nov.-2016

[*1]SEHM: State Enterprise on Highway Management, [*2] SETM: State Enterprise of Transport Management

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal Pavement condition of the roads in Tajikistan is improved.	1. By the end of 2019, at least 30 km and 15 km of lengths of road repairing is implemented by hot-mix asphalt by the original and additional target groups respectively at International, Republican and Local roads according to the Road Repairing Guidelines 2. The average Road Repair Index (RRI) of roads repaired under 1 above in the original target area has a reduction of at least 60% compared to the same before repairing 3. The average IRI of the roads repaired under 1 above in the additional target area has a reduction of at least 50 % compared to the same before repairing	1. Road maintenance record sheet of each SETM (monthly and yearly) 2. 2&3 Form 1 of Road Inspection Guideline Final Version	
Project Purpose Implementation capacity for road maintenance is improved.	1. At least 90% of the results of roughness survey at original target 22 SEHMs, using the revised Guidelines is assessed accurate by the JICA experts by the end of the Project 2. At least 80% of visual inspection results by original target 22 SEHMs, using the revised Guidelines is assessed accurate by the JICA experts	1. & 2. Road Inspection Record and its assessment summary 3. Repairing record and its assessment summary 4. Date of	-Current socio-political situation is not changed drastically. -Policy including the budget allocation for

	by the end of the Project 3. At least 80% of results of the road repairing works #2 by three fourths of original target SEHMS, planned based on the results of the road inspection and implemented according to the revised Guidelines, meet requirements of time, cost, quality, and safety specified in the plans 4. Road Inspection and Repairing Guidelines for SETM/SEHM revised through the Project are approved by MOT by the end of the Project	approval by the First Deputy Minister Head of Main Depart, MOT	the road maintenance and repair is maintained. -Road repairing equipment to use hot-mix asphalt is available for additional 2SETMs by the end of 2017
Outputs 1. Road inspection[*4] skills of the target SEHMs are improved.	1a.Road Inspection Guidelines for SETM/SEHM are revised with the newly developed Roughness Survey Manual by April 2014 1b. International Roughness Index (IRI) of the roads in the original target area is collected according to the revised Guidelines by the original target 2 SETMs in coordination with the original target 22 SEHMs at least twice by the end of the Project 1c. Visual inspection according to the revised Guideline is conducted at least twice by all original target SEHMs by the end of the Project 1d. Road Inspection Guidelines for SETM/SEHM are finalized by September 2016 for submission to MOT, reflecting feedbacks from the road inspections (roughness survey and visual inspection) in the target area 1e. Training of IRI measurement and visual inspection for additional 2 SETMs and 6 SEHMs were conducted at the additional target area by the Master Trainers for Inspection from the original target SETMs/SEHMs, using the revised Guidelines	1a Revised Inspection Guidelines 1b. Roughness Survey Report 1c. Inspection Record and its assessment summary 1d. Final version of revised Guidelines submitted to MOT 1e. Inspection Record 1f. Test record and report	-Sufficient number of the engineers and operators of the target SEHMs is kept.

	1f. At least 80% of the training participants from additional target SETM and SEHMs pass the post-training test on basic elements of pavement inspection		
2. Road repairing*5 skills of the target SEHMs are improved.	2a. Road repairing guidelines for SETM/SEHM are revised by April 2014 2b. At least 80% of the training participants from original target SETM passes the post-training test on road repairing to use hot-mix asphalt 2c. At least 5.0 km length of road repairing (#1 and #2) is implemented by at least 80% of the original target SEHMs according to the revised Guidelines by the end of the Project 2d. Road Repairing Guidelines for SETM/SEHM are finalized by September 2016 for submission to MOT reflecting the feedbacks from road repairing works #1 and #2 2e. All the appointed laboratory technicians of the asphalt plants in the target SETMs score at least 70 out of 100 points in the post-training tests 2f. At least 80% of the training participants from additional target 2 SETM and 6 SEHMs passes the post-training test on basic elements of pavement repair by the end of the Project	2a. Revised Road and Repairing Guidelines 2b. Test record and report 2c. Road Repairing record 2d. Final version of revised Guidelines submitted to MOT 2e&2f. Test record and report	

*3 Road maintenance means pavement maintenance, *4 Road inspection means pavement inspection

*5 Road repairing means pavement repairing

Activities	**Inputs**		
1.1 To review the existing Road Inspection Guidelines. 1.2 To revise the Road Inspection Guidelines with the attached Roughness Survey Manual. 1.3 Conduct trainings (in each region)	**<Japanese side>** **1. Experts** a) Leader/Road Maintenance Expert 1 b) Road	**<Tajikistan side>** **1. Counterparts for the Project** a) Project Director b) Project Manager	-Natural disaster which affect the activities of the Project does not occur -Security

on Roughness Survey for the original target 2 SETMs and 22 SEHMs. 1.4 Carry out Roughness Survey on the roads in the original target area according to the revised Guidelines by the target 2 SETMs in coordination with the original target 22 SEHMs. 1.5 Organize a workshop (in Dushanbe) to summarize the results of Roughness Survey with the target 2 SETMs, 22 SEHMs and MOT. 1.6 File the results of Roughness Survey (IRI data) by the original target 2 SETM in the prescribed form of the revised Guidelines 1.7 Conduct trainings (in each region) on road inspection according to the revised Road Inspection Guidelines for the original target 22 SEHMs and 2 SETMs. 1.8 Conduct visual inspection on the roads in the original target area at the original target 22 SEHMs, according to the revised Guidelines. 1.9 Revise the Road Inspection Guidelines based on the results of the road inspection works (Act. 1.4 & 1.8) 1.10 Organize workshops (in each region) to introduce the revised Guidelines for the original target 22 SEHMs, 2 SETMs and MOT. 1.11 Conduct road inspection (i.e. roughness survey, including filing results, and visual inspection) in the original target area at the original target 22 SEHMs according to the revised Guidelines. 1.12 Finalize the Road Inspection	inspection Expert 1 c) Roughness Survey Expert d) Road Repairing Supervision Expert 1 e) Road Repairing Supervision Expert 2 f) Road Maintenance Expert 2/ Road Inspection Expert 2 g) Interpreters **2. Equipment** Equipment for roughness survey (2 sets) **3. Expenses for kick-off, mid-term and final seminars** (Inputs other than indicated here will be determined through mutual consultation between JICA and MOT during the implementation of the Project, as necessary.)	c) Counterparts **2. Office Facilities** a) In the building of MOT for the Project with office furniture and utilities such as telephone line, electricity, etc. b) In the building of SETM located in Kurgan-Tyube with office furniture and utilities such as telephone line, electricity, etc. **3. Running Expenses** Necessary for the implementation of the Project including travel expenses and allowances for the participants of the trainings and workshops and expenses for the road repairing works.	situation of Tajikistan which limits the activities of the JICA experts, especially in the target area, does not deteriorate compared with the same in December 2015 <u>Pre-Condition</u> Tajikistan especially the target area is continuously safe enough for JICA experts to implement the activities

Guidelines based on the results of the road inspection works (Act. 1.11). 1.13 Organize workshops (in each region) to summarize the results of road inspection and to introduce the finalized Road Inspection Guidelines for the target SEHMs, SETMs and MOT. 1.14 Certify Master Trainers for road inspection from the staff of the original target SETMs/SEHMs 1.15 Monitor and give technical advice on training conducted by the Master Trainers for additional target 2 SETMs and 6 SEHMs on basic elements of road inspection at the additional target area.			
2.1 Review the existing Road Repairing Guidelines. 2.2 Revise the Road Repairing Guidelines to improve pavement maintenance 2.3 Conduct trainings (in each region) on road repairing according to the revised Guidelines for the original target 22SEHMs. 2.4 Provide support and advice on planning of the road repairing work #1 (in each region) according the revised Guidelines. 2.5 Implement an on-site technical instruction (in each region) for a road repairing work #1 according the revised Guidelines at the selected SEHMs from the original target 2 SETMs. 2.6 Analyze the results of road repairing works #1, such as repairing materials and procedures. 2.7 Revise the Road Repairing Guidelines further based on the results of the analysis (Act. 2.6) 2.8 Organize workshops (in each			

region) to introduce the revised Guidelines with the original target 22 SEHMs, 2 SETMs and MOT. 2.9 Plan the road repairing work #2 in the original target area by the selected target SEHMs according to the revised Guidelines reflecting the results of road inspection (Act. 1.8). 2.10 Monitor and give technical advice on the road repairing works #2. 2.11 Finalize the Road Repairing Guidelines based on the results of the road repairing works #2. 2.12 Organize workshops (in each region) to give feedbacks on the results of road repairing works #2, such as repairing materials and procedures, and to introduce the finalized Road Repairing Guidelines for the target SEHMs, SETMs and MOT. 2.13 Carry out training on appointed laboratory technicians from each target SETM to be able to conduct day to day quality control test at the asphalt plant. 2.14 Assist the original target SETMs/SEHMs in training additional 2 SETMs and 6 SEHMs on basic elements of pavement repair using road repairing works #2 in 2016. 2.15 Certify trainers for specific techniques for road repairing from the staff of the original target SETMs/SEHMs.			

附属書 **GP-5**

プロジェクト終了時以降の戦略計画

The Project for Improvement of Road Maintenance

April 2016

Post Project Strategy Policy Paper

In order that healthy sustainability is maintained upon completion of the project at the end of November 2016, this post project strategy policy paper has been drafted for mutual discussions with MOT and JICA by the JICA Experts Team.

1. Proposed Goals for MOT in 2021

1.1 Pavement Inspection

- to be able to conduct pavement inspection in accordance with Pavement Inspection Manual for the entire international and republican roads in Tajikistan in a standardized manner.
- to maintain a database center in MOT for controlling all pavement inspection data within Tajikistan.

1.2 Pavement Repair

- to be able to conduct pavement repair in accordance with Pavement Repair Manual at 4 SETMs under which road maintenance machineries and equipment are handed over by JICA.
- to maintain a pavement repair data center in Gissar and Kurgan Tyube SETMs.

2. MOT Financial Prerequisites

MOT requires securing the following amount of fund for each concerned SETM for achieving goals in 2021.

Pavement Inspection
For the required IRI survey and visual inspection: 20,000 Somonis each SETM
Pavement Repair
For the required overlay of 5km of 7m width: 1,680,000 Somonis each SETM
Total for Both : 1,700,000 Somonis each SETM

In addition to the above, MOT requires securing the additional nominal amounts of fund as indicated in the attached Detailed Explanation Sheets.

3. Anticipated Strategy for Achieving Goals for MOT in 2021

2.1 Pavement Inspection

Strategy 1
Continuation of training led by master trainers for ensuring that pavement inspection procedures recommended under pavement inspection manual are maintained for Gissar, Kurgan Tyube, Sogd and Kulyab SETMs.
Strategy 2
Establishment of database center in MOT.

Strategy 3
Extension of technical transfer by master trainers for ensuring pavement inspection procedures recommended under pavement inspection manual are implemented by 2 remaining SETMs.

Strategy 4
Updating of pavement inspection manual by MOT

2.2 Pavement Repair

Strategy 1
Continuation of training led by Gissar and Kurgan Tyube SETMs for ensuring that pavement repair procedures recommended under pavement repair manual are adhered to for Gissar, Kurgan Tyube, Sogd and Kulyab SETMs. Each SETM aims at repairing roads at the pace of or more than 5km each year accordingly

Strategy 2
Establishment of pavement repair data center in Gissar and Kurgan Tyube SETM.

Strategy 3
Updating of pavement repair manual by MOT

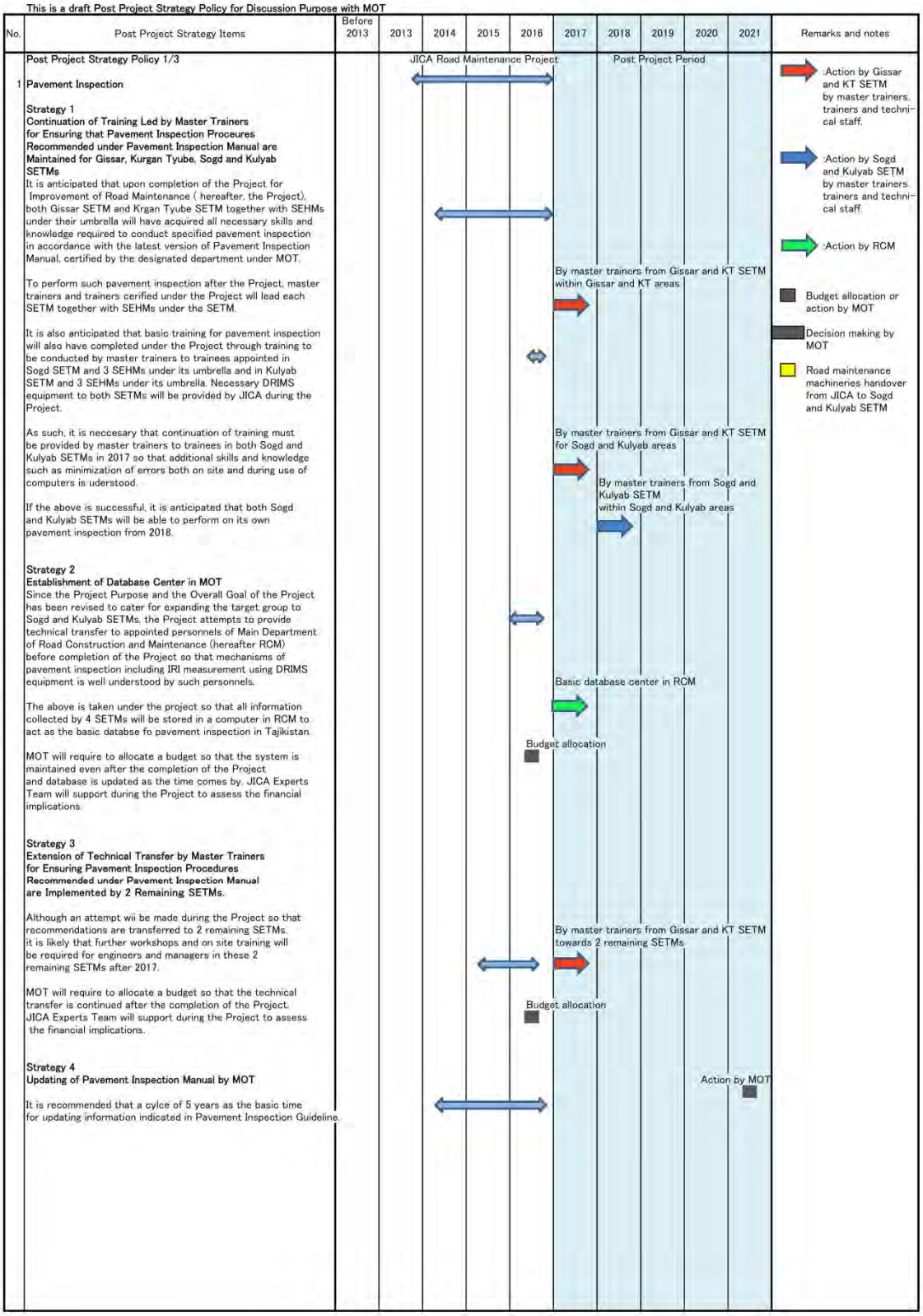
2.3 Organizational Strengthening within MOT

Strategy 1
Strengthening of RCM to act as the database center for road maintenance in MOT.

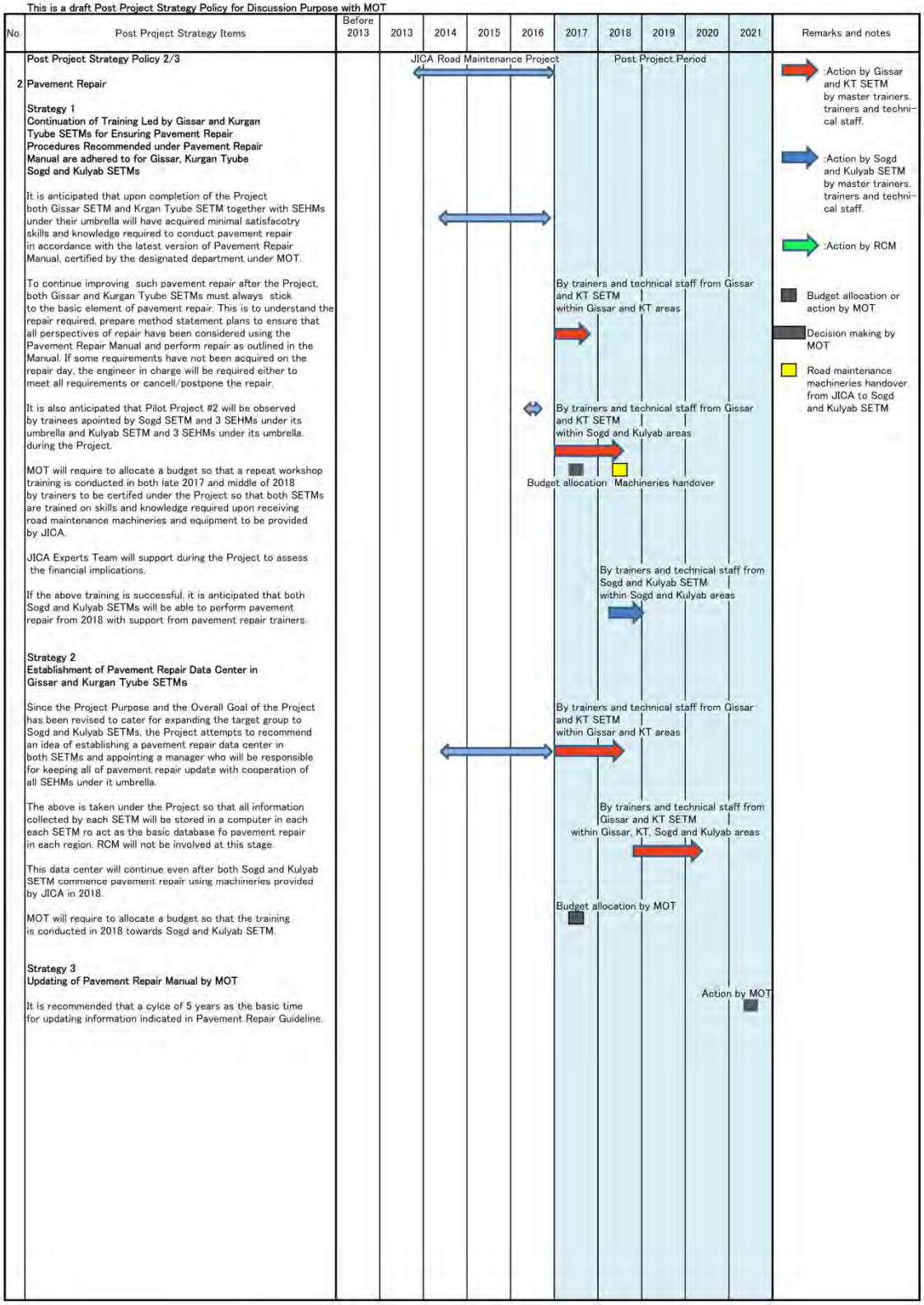
Strategy 2
Development in future to transform RCM to database center for all road infrastructure assets and increase management capacity

Detailed explanation sheets indicating action in steps together with the associated time frame are attached.

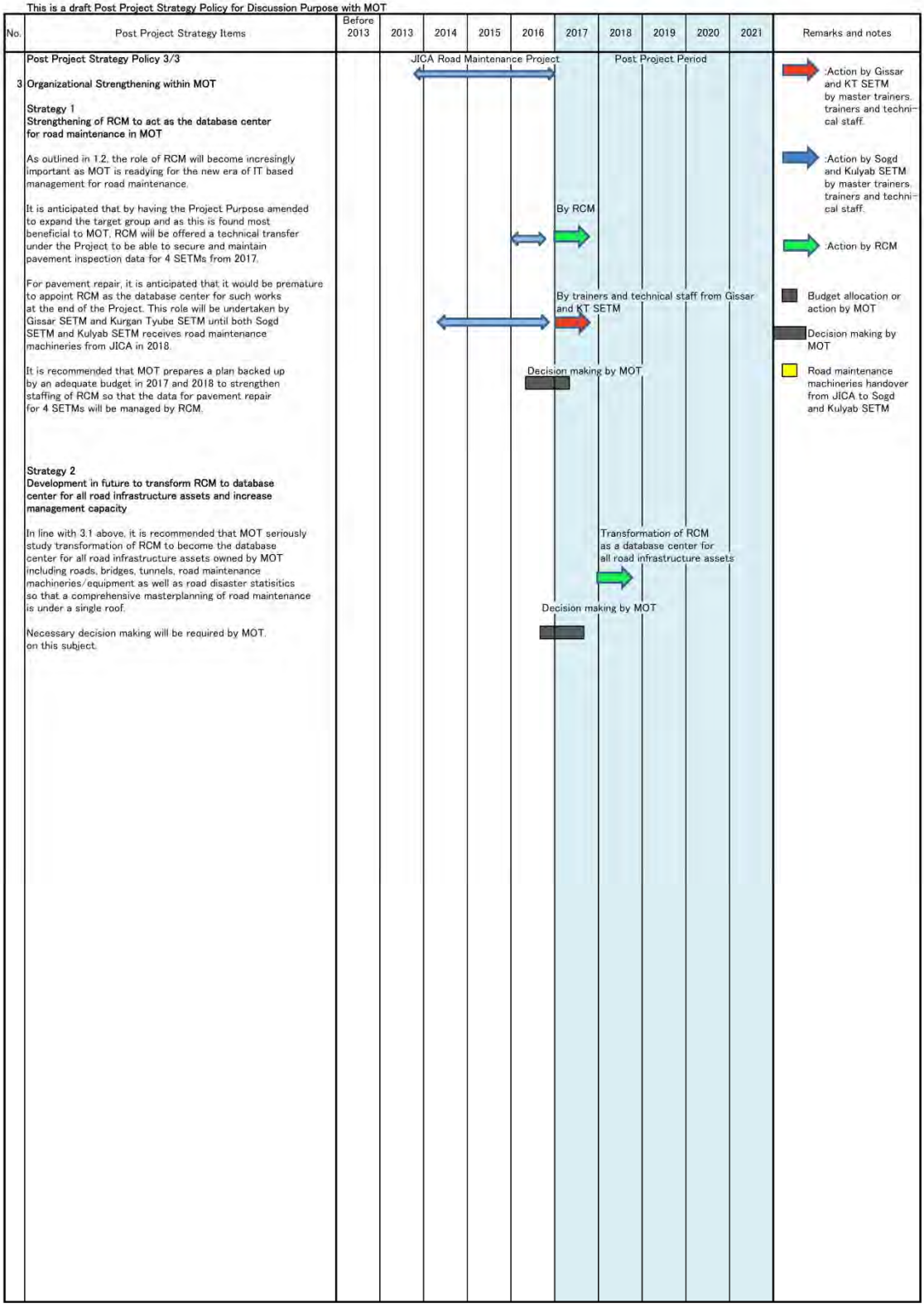
This is a draft Post Project Strategy Policy for Discussion Purpose with MOT

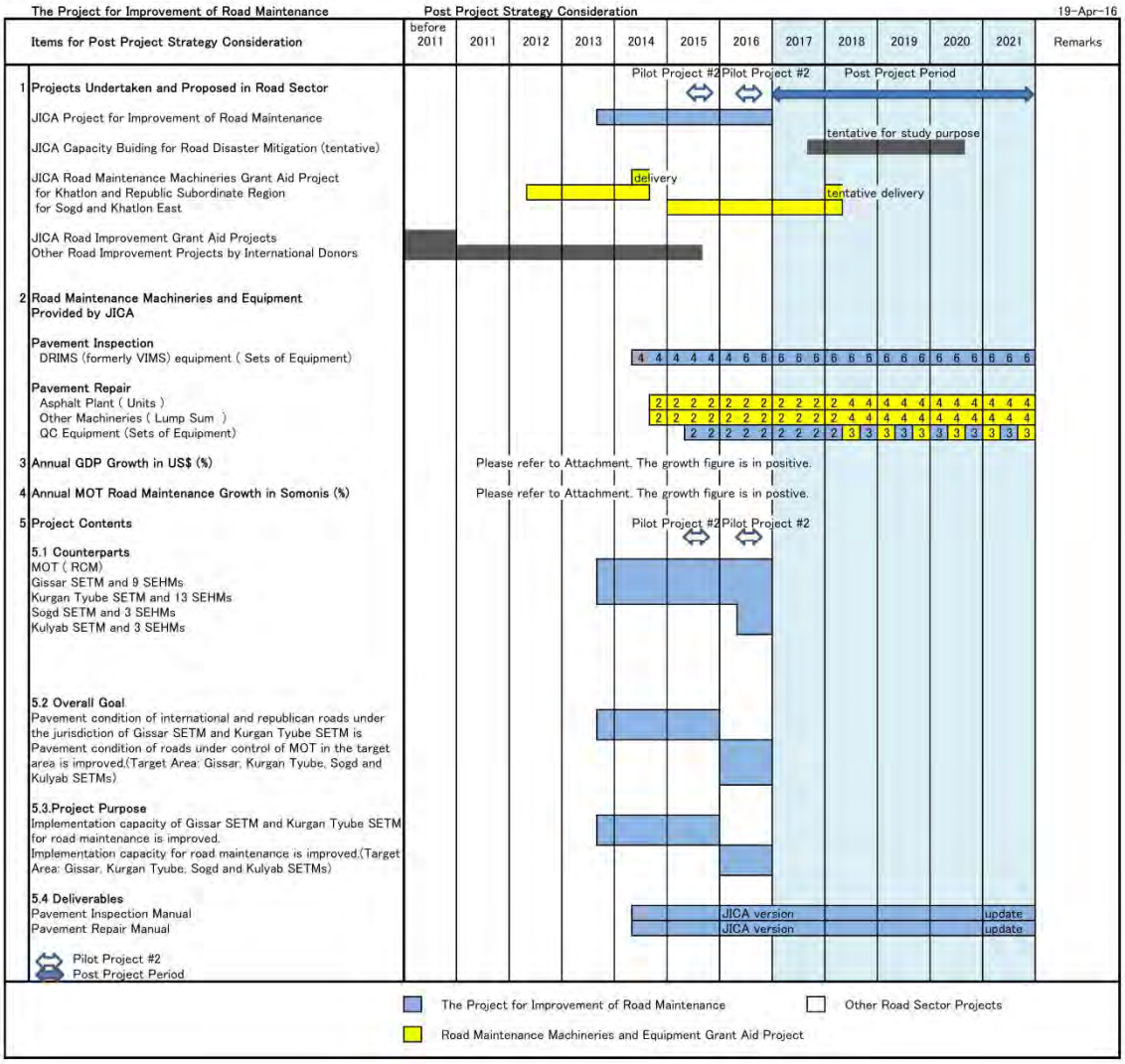


This is a draft Post Project Strategy Policy for Discussion Purpose with MOT



This is a draft Post Project Strategy Policy for Discussion Purpose with MOT




The Project for Improvement of Road Maintenance
Post Project Strategy Consideration
19-Apr-16
Items for Post Project Strategy Consideration
before 2011
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Remarks
1 Projects Undertaken and Proposed in Road Sector
Pilot Project #2
Pilot Project #2
Post Project Period
JICA Project for Improvement of Road Maintenance
JICA Capacity Buiding for Road Disaster Mitigation (tentative)
tentative for study purpose
JICA Road Maintenance Machineries Grant Aid Project for Khatlon and Republic Subordinate Region for Sogd and Khatlon East
delivery
tentative delivery
JICA Road Improvement Grant Aid Projects
Other Road Improvement Projects by International Donors
2 Road Maintenance Machineries and Equipment Provided by JICA
Pavement Inspection
DRIMS (formerly VIMS) equipment (Sets of Equipment)
4 4 4 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6
Pavement Repair
Asphalt Plant (Units)
2 2 2 2 2 2 2 2 2 2 4 4 4 4 4 4 4 4 4
Other Machineries (Lump Sum)
2 2 2 2 2 2 2 2 2 2 4 4 4 4 4 4 4 4 4
QC Equipment (Sets of Equipment)
2 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3
3 Annual GDP Growth in US$ (%)
Please refer to Attachment. The growth figure is in positive.
4 Annual MOT Road Maintenance Growth in Somonis (%)
Please refer to Attachment. The growth figure is in postive.
5 Project Contents
Pilot Project #2
Pilot Project #2
5.1 Counterparts
MOT (RCM)
Gissar SETM and 9 SEHMs
Kurgan Tyube SETM and 13 SEHMs
Sogd SETM and 3 SEHMs
Kulyab SETM and 3 SEHMs
5.2 Overall Goal
Pavement condition of international and republican roads under the jurisdiction of Gissar SETM and Kurgan Tyube SETM is
Pavement condition of roads under control of MOT in the target area is improved.(Target Area: Gissar, Kurgan Tyube, Sogd and Kulyab SETMs)
5.3.Project Purpose
Implementation capacity of Gissar SETM and Kurgan Tyube SETM for road maintenance is improved.
Implementation capacity for road maintenance is improved.(Target Area: Gissar, Kurgan Tyube, Sogd and Kulyab SETMs)
5.4 Deliverables
Pavement Inspection Manual
JICA version
update
Pavement Repair Manual
JICA version
update
Pilot Project #2
Post Project Period
The Project for Improvement of Road Maintenance
Other Road Sector Projects
Road Maintenance Machineries and Equipment Grant Aid Project

附属書 **GP-6**

第 7 回合同調整委員会議事録

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
MINISTRY OF TRANSPORT (MOT)

MINUTES OF MEETING
FOR THE
7th JOINT COORDINATING COMMITTEE MEETING
FOR
THE PROJECT FOR IMPROVEMENT OF ROAD MAINTENANCE
THE REPUBLIC OF TAJIKISTAN

22nd of November 2016 Dushanbe, Tajikistan

The Seventh Joint Coordinating Committee (hereinafter referred to as "JCC") meeting on the Project for Improvement of Road Maintenance (hereinafter referred to as "the Project") was held on the 22nd of November, 2016 at the Ministry of Transport (hereinafter referred to as MOT) to confirm progress and achievement made from the start of the Project in October 2013 to the end of the Project including the results of all verifiable indicators and the Post Project Strategy Paper. As a result of the meeting, the JCC members mutually agreed on the matters mentioned in Attachment 1.

Mr. Ganjalzoda Sherali
Acting Chairman,
Joint Coordination Committee
The Minister of Transport

Mr. Kiyoshi Ishii
Vice Chairman,
Joint Coordination Committee
Resident Representative,
JICA Tajikistan Office

ATTACHMENT 1: DETAILS OF MEETING

1. The JCC Meeting commenced at 9:40 AM with an introduction of participating members by Mr. Yatimov Olim, Project Manager.
2. Acting chairman, Your Excellency Mr. Ganjalzoda Sherali, the Minister of Transport, made an opening speech. Acting Chairman thanked the Japanese side for their assistance for support of transport sector in the Republic of Tajikistan. He also thanked that the Project enabled training of the staff from Gissar, Kurgan Tyube, Sogd and Kulyab regions in the field of pavement inspection and pavement repair.
3. Resident Representative of JICA Mr. Kiyoshi Ishii and Vice Chairman of JCC explained about the uniqueness of the technical cooperation scheme under JICA, and that this Project was the first technical cooperation project in the transport sector implemented by JICA Tajikistan office. He then confirmed the objective of the 7th JCC Meeting as well as the project goal. He also asked the Acting Chairman, the Minister of Transport to consider retaining the project office currently occupied by the JICA Experts Team (hereinafter referred to as the Experts) for use under the planned new technical cooperation project.
4. The Chief Advisor of the Experts Mr. Hiroshi Mita conducted presentations regarding the activities for the past 6 months as well as the activities conducted from the beginning of the Project to present the outcome of all verifiable indicators under PDM Version 3 using PowerPoint presentation slides. He also presented 2 minor changes made on the Post Project Strategy Paper which was originally presented on 24 May 2016 under the 6th JCC meeting. At that time, the paper was agreed by all JCC members for basic acceptance. He requested this time for full acceptance informing the members that this was the request jointly agreed by the Experts and Road Construction and Maintenance Department of MOT. Two changes were 1) the change in MOT financial prerequisites and 2) consideration for pavement repair on local roads. He explained that the second change would require minor changes to PDM and hence, introduction of Version 4 of PDM.
5. Representatives of the Counterparts from Gissar SETM, Kurgan Tyube SETM presented their comments on how the Project contributed deeply in improving their day to day operation for pavement inspection and repair.

6. Acting Chairman made the following comments on the results of the Project;
   1) Acting chairman praised the Experts and the Counterparts for publication of Pavement Inspection Guideline and Pavement Repair Guideline, which would be most useful for SETM and SEHM engineers on site.
   2) For necessary funding required for proper road maintenance as estimated by the Experts of 1,518,000 Somonis per year per each SETM, Acting Chairman confirmed that MOT will try its best to allocate such funds in future.
7. All members reconfirmed the following two topics presented by the Chief Advisor as outlined in 5 above.

   The 2 changes requested for the Post Project Strategy Paper (Attachment PP-1):
   All JCC members approved adopting the Post Project Strategy Paper in Attachment PP-1.
   Version 4 of PDM (Attachment PP-2)
   All JCC members approved adopting the Version 4 of PDM in Attachment PP-2.

8. To end the meeting and on behalf of the Tajikistan Side, Acting Chairman reaffirmed that the results of the Project would contribute to the development of transport sector in Tajikistan. He also assured that MOT would always closely cooperate with JICA. Furthermore, he stated that MOT would retain the project office currently occupied by the Experts for use under the planned new JICA technical cooperation project.
9. In return and on behalf of the Japanese side and as the Vice Chairman, Mr. Kiyoshi Ishii of JICA Tajikistan Office concluded that the Project achieved significant improvement in both pavement inspection and pavement repair and thanked MOT for full cooperation. He also thanked MOT for assuring the use of the current project office for further use under the planned new JICA technical cooperation project.

The meeting ended at 11:20 PM.

ATTACHMENT 6: Meeting Photos

ATTACHMENT 4: Post Project Strategy Paper (Attachment PP-1)

The Project for Improvement of Road Maintenance

November 2016

This is the revised version based on the change made to Pavement Inspection Guideline 2016.

Post Project Strategy Policy Paper

In order that healthy sustainability is maintained upon completion of the project at the end of November 2016, this post project strategy policy paper has been agreed by MOT and JICA Experts Team. This paper is in line with PDM Version 4.

1. Proposed Goals for MOT in 2021

1.1 Pavement Inspection

- to be able to conduct pavement inspection in accordance with Pavement Inspection Manual for the entire international and republican roads in Tajikistan in a standardized manner.
- to maintain a database center in MOT for controlling all pavement inspection data within Tajikistan.

1.2 Pavement Repair

- to be able to conduct pavement repair in accordance with Pavement Repair Manual at 4 SETMs under which road maintenance machineries and equipment are handed over by JICA.
- to maintain a pavement repair data center in Gissar and Kurgan Tyube SETMs.

2. MOT Financial Prerequisites

MOT requires securing the following amount of fund for each concerned SETM for achieving goals in 2021.

Pavement Inspection
For the required IRI survey and visual inspection: 20,000 Somonis each SETM
Pavement Repair
For the required overlay of 5km of 7m width: 1,498,000 Somonis each SETM
Total for Both : 1,518,000 Somonis each SETM

In addition to the above, MOT requires securing the additional nominal amounts of fund as indicated in the attached Detailed Explanation Sheets.

3. Anticipated Strategy for Achieving Goals for MOT in 2021

2.1 Pavement Inspection

Strategy 1
Continuation of training led by master trainers for ensuring that pavement inspection procedures recommended under pavement inspection manual are maintained for Gissar, Kurgan Tyube, Sogd and Kulyab SETMs.
Strategy 2
Establishment of database center in MOT.

Strategy 3
Extension of technical transfer by master trainers for ensuring pavement inspection procedures recommended under pavement inspection manual are implemented by 2 remaining SETMs.

Strategy 4
Updating of pavement inspection manual by MOT

2.2 Pavement Repair

Strategy 1
Continuation of training led by Gissar and Kurgan Tyube SETMs for ensuring that pavement repair procedures recommended under pavement repair manual are adhered to for Gissar, Kurgan Tyube, Sogd and Kulyab SETMs. Each SETM aims at repairing roads at the pace of or more than 5km each year accordingly

Strategy 2
Establishment of pavement repair data center in Gissar and Kurgan Tyube SETM.

Strategy 3
Updating of pavement repair manual by MOT

2.3 Organizational Strengthening within MOT

Strategy 1
Strengthening of RCM to act as the database center for road maintenance in MOT.

Strategy 2
Development in future to transform RCM to database center for all road infrastructure assets and increase management capacity

Detailed explanation sheets indicating action in steps together with the associated time frame are attached.

ATTACHMENT 5: Version 4 PDM dated 22 November 2016 (Attachment PP-2)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
MINISTRY OF TRANSPORT (MOT)

LOGICAL FRAMEWORK (PROJECT DESIGN MATRIX: PDM) 4

PROJECT TITLE: Project for Improvement of Road Maintenance	DURATION: Originally 31 months from Oct 2013 to May 2016, Extended for 6 months to November 2016	PDM Ver.4
TARGET GROUP: 22 SEHM*1s and 2 SETMs *2 in Gissar and Kurgan – Tyube and Ministry of Transport (MOT) (original target group), 6 SEHMs and 2 SETMs in Sogd and Kulyab (additional target group in the extended period)	TARGET AREA: International & Republican roads in Gissar and Kurgan-Tyube (original target area) and in Sogd and Kulyab (additional target area)	DATE: 22-Nov..-2016

*1SEHM: State Enterprise on Highway Management, *2 SETM: State Enterprise of Transport Management

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal Pavement condition of the roads in Tajikistan is improved.	1. By the end of 2019, at least 30 km and 15 km of lengths of road repairing is implemented by hot-mix asphalt by the original and additional target groups respectively at International, Republican and Local roads according to the Road Repairing Guidelines 2. The average Road Repair Index (RRI) of roads repaired under 1 above in the original target area has a reduction of at least 60% compared to the same before repairing 3. The average IRI of the roads repaired under 1 above in the additional target area has a reduction of at least 50 % compared to the same before repairing	1. Road maintenance record sheet of each SETM (monthly and yearly) 2. 2&3 Form 1 of Road Inspection Guideline Final Version	
Project Purpose	1. At least 90% of the results of roughness survey at original target 22	1. & 2 Road Inspection	-Current

Implementation capacity for road maintenance is improved.	SEHMs, using the revised Guidelines is assessed accurate by the JICA experts by the end of the Project 2. At least 80% of visual inspection results by original target 22 SEHMs, using the revised Guidelines is assessed accurate by the JICA experts by the end of the Project 3. At least 80% of results of the road repairing works #2 by three fourths of original target SEHMS, planned based on the results of the road inspection and implemented according to the revised Guidelines, meet requirements of time, cost, quality, and safety specified in the plans 4. Road Inspection and Repairing Guidelines for SETM/SEHM revised through the Project are approved by MOT by the end of the Project	Record and its assessment summary 3. Repairing record and its assessment summary 4. Date of approval by the First Deputy Minister Head of Main Depart, MOT	socio-political situation is not changed drastically. -Policy including the budget allocation for the road maintenance and repair is maintained. -Road repairing equipment to use hot-mix asphalt is available for additional 2SETMs by the end of 2017
Outputs 1. Road	1a. Road Inspection Guidelines for SETM/SEHM are revised with the newly developed Roughness Survey Manual by April 2014	1a Revised Inspection Guidelines	-Sufficient number of the

inspection[*4] skills of the target SEHMs are improved.	1b. International Roughness Index (IRI) of the roads in the original target area is collected according to the revised Guidelines by the original target 2 SETMs in coordination with the original target 22 SEHMs at least twice by the end of the Project 1c. Visual inspection according to the revised Guideline is conducted at least twice by all original target SEHMs by the end of the Project 1d. Road Inspection Guidelines for SETM/SEHM are finalized by September 2016 for submission to MOT, reflecting feedbacks from the road inspections (roughness survey and visual inspection) in the target area 1e. Training of IRI measurement and visual inspection for additional 2 SETMs and 6 SEHMs were conducted at the additional target area by the Master Trainers for Inspection from the original target SETMs/SEHMs, using the revised Guidelines 1f. At least 80% of the training participants from additional target SETM and SEHMs pass the post-training test on basic elements of pavement inspection	1b. Roughness Survey Report 1c. Inspection Record and its assessment summary 1d. Final version of revised Guidelines submitted to MOT 1e. Inspection Record 1f. Test record and report	engineers and operators of the target SEHMs is kept.
2. Road repairing[*5] skills of the target SEHMs are improved.	2a. Road repairing guidelines for SETM/SEHM are revised by April 2014 2b. At least 80% of the training participants from original target SETM passes the post-training test on road repairing to use hot-mix asphalt 2c. At least 5.0 km length of road repairing (#1 and #2) is implemented by at least 80% of the original target SEHMs according to the revised	2a. Revised Road and Repairing Guidelines 2b. Test record and report 2c. Road Repairing	

	Guidelines by the end of the Project 2d. Road Repairing Guidelines for SETM/SEHM are finalized by September 2016 for submission to MOT reflecting the feedbacks from road repairing works #1 and #2 2e. All the appointed laboratory technicians of the asphalt plants in the target SETMs score at least 70 out of 100 points in the post-training tests 2f. At least 80% of the training participants from additional target 2 SETM and 6 SEHMs passes the post-training test on basic elements of pavement repair by the end of the Project	record 2d. Final version of revised Guidelines submitted to MOT 2e&2f. Test record and report	

*[3] Road maintenance means pavement maintenance, *[4] Road inspection means pavement inspection

*[5] Road repairing means pavement repairing

LOGICAL FRAMEWORK (PROJECT DESIGN MATRIX: PDM) 4

Activities	Inputs		
1.1 To review the existing Road Inspection Guidelines. 1.2 To revise the Road Inspection Guidelines with the attached Roughness Survey Manual. 1.3 Conduct trainings (in each region) on Roughness Survey for the original target 2 SETMs and 22 SEHMs. 1.4 Carry out Roughness Survey on the roads in the original target area according to the revised Guidelines by the target 2 SETMs in coordination with the original target 22 SEHMs. 1.5 Organize a workshop (in Dushanbe) to summarize the results of Roughness Survey with the target 2 SETMs, 22 SEHMs and MOT. 1.6 File the results of Roughness Survey (IRI data) by the original target 2 SETM in the prescribed form of the revised Guidelines 1.7 Conduct trainings (in each region) on road inspection according to the revised Road Inspection Guidelines for the original target 22 SEHMs and 2 SETMs. 1.8 Conduct visual inspection on the roads in the original target area at the original target 22 SEHMs, according to the revised Guidelines. 1.9 Revise the Road Inspection Guidelines based on the results of the road inspection works (Act. 1.4 & 1.8) 1.10 Organize workshops (in each region) to introduce the revised Guidelines for the original target 22 SEHMs, 2 SETMs and MOT.	<Japanese side> **1. Experts** a) Leader/Road Maintenance Expert 1 b) Road inspection Expert 1 c) Roughness Survey Expert d) Road Repairing Supervision Expert 1 e) Road Repairing Supervision Expert 2 f) Road Maintenance Expert 2/ Road Inspection Expert 2 g) Interpreters	<Tajikistan side> **1. Counterparts for the Project** a) Project Director b) Project Manager c) Counterparts **2. Office Facilities** a) In the building of MOT for the Project with office furniture and utilities such as telephone line, electricity, etc. b) In the building of SETM located in Kurgan-Tyube with office furniture and utilities such as	-Natural disaster which affect the activities of the Project does not occur -Security situation of Tajikistan which limits the activities of the JICA experts, especially in the target area, does not deteriorate compared with the same in December 2015 <u>Pre-Condition</u> Tajikistan especially the

and procedures. 2.7 Revise the Road Repairing Guidelines further based on the results of the analysis (Act. 2.6) 2.8 Organize workshops (in each region) to introduce the revised Guidelines with the original target 22 SEHMs, 2 SETMs and MOT. 2.9 Plan the road repairing work #2 in the original target area by the selected target SEHMs according to the revised Guidelines reflecting the results of road inspection (Act. 1.8). 2.10 Monitor and give technical advice on the road repairing works #2. 2.11 Finalize the Road Repairing Guidelines based on the results of the road repairing works #2. 2.12 Organize workshops (in each region) to give feedbacks on the results of road repairing works #2, such as repairing materials and procedures, and to introduce the finalized Road Repairing Guidelines for the target SEHMs, SETMs and MOT. 2.13 Carry out training on appointed laboratory technicians from each target SETM to be able to conduct day to day quality control test at the asphalt plant. 2.14 Assist the original target SETMs/SEHMs in training additional 2 SETMs and 6 SEHMs on basic elements of pavement repair using road repairing works #2 in 2016. 2.15 Certify trainers for specific techniques for road repairing from the staff of the original target SETMs/SEHMs.			

附属書 **GP-7**

Master Trainer と **Trainer** リスト

Master List of Trainees Completed Program under The Project for Improvement of Road Maintenance by JICA (Gissar)

No.	Name	SETM/SEHM	Certificate		
1	Mr.Odinaev Smoilbek	Gissar SETM	Inspection(MT)	Repair(MT)	
2	Mr.Qodirov Yusuf	Gissar SETM	-	Repair	
3	Mrs.Qodirova Zulkhumor	Rudaki SEHM	Inspection(MT)	Repair(MT)	
4	Mr.Ismoilov Umed	Hisor SEHM	Inspection(MT)	Repair	
5	Mr.Rustamov Ibodullo	Shahrinav SEHM	-	Repair	
6	Mrs.Safarova Sayora	Shahrinav SEHM	Inspection	Repair	
7	Mr.Nematov Odil	Faizobod SEHM	Inspection(MT)	Repair	
8	Mrs.Bobokhonova Zuhro	Varzob SEHM	Inspection	Repair	
9	Mr.Izatulloev Maqsud	Varzob SEHM	Inspection	Repair	
10	Mr.Eshonov Usmon	Roghun SEHM	Inspection	-	
11	Mr.Mukhamedov Shamsiddin	Norak SEHM	Inspection	-	
12	Mr.Tabarov Hakimali	Vahdat SEHM	-	Repair(MT)	
13	Mr.Saidov Qayum	Vahdat SEHM	-	Repair	
14	Mr.Asoev Hussein	Vahdat SEHM	-	-	QC (MT)
15	Mr.Akhmedov Suhrob	Vahdat SEHM	-	-	QC (MT)

Note: (MT) Master Trainer

Master List of Trainees Completed Program under The Project for Improvement of Road Maintenance by JICA (Krgan Tyube)

No.	Name	SETM/SEHM	Certificate		
1	Mr.Kholiqov Muzaffar	Kurgan-tyube SETM	Inspection(MT)	Repair(MT)	
2	Mr.Karimov Abdusalim	Kurgan-Tyube SETM		Repair	
3	Mr.Majidov Shuhrat	Kurgan-tyube SETM	Inspection	Repair	
4	Mr.Hikmatov Khairullo	Jomi SEHM	Inspection(MT)	Repair(MT)	
5	Mr.Ergashev Ulughbek	Jomi SEHM	Inspection	Repair	Approved
6	Mr.Toirov Maqsadjon	Qubodiyon SEHM	Inspection(MT)	Repair(MT)	
7	Mr.Qahhorov Nurmahmad	Bokhtar SEHM	Inspection	Repair	
8	Mr.Qanoatov Qurbon	Sarband SEHM	Inspection(MT)		
9	Mr.Kholiqov Faiziddin	Rumi SEHM	Inspection	Repair	
10	Mr.Ghoibnazarov Mahmadsharif	Rumi SEHM	Inspection	Repair	
11	Mr.Abdurahmonov Majid	Shahrituz SEHM	Inspection	Repair	
12	Mr.Egamberdiev Hasan	Khuroson SEHM	Inspection	Repair	
13	Mr.Ghulomov Sharif	Vakhsh SEHM	Inspection		
14	Mr.Ghoibov Sharifkhon	Vakhsh SEHM		Repair	
15	Mr.Aliqulov Tagoy	Yovon SEHM		Repair	
16	Mr.Najmakov Rivoj	Jillikul SEHM		Repair	

17	Mr.Faizulloev Mahmadsaid	Jillikul SEHM		Repair	
18	Mr.Saidov Shomahmad	Jillikul SEHM		Repair	
23	Mr.Anorov Rajab	Jillikul SEHM			QC(MT)
24	Mr.Abdulloi Mamadqul	Jillikul SEHM			QC(MT)
19	Mr.Murodov Ruziboy	N.Khusrav SEHM		Repair	
20	Mr.Negmatov Hakimullo	Bokhtar SEHM		Repair	
21	Mr.Malikov Ilhom	Piyandzh SEHM		Repair	
22	Mr.Kholiqov Mahmadkarim	Qumsangir SEHM		Repair	

Note: (MT) Master Trainer

Master List of Trainees Completed Program under The Project for Improvement of Road Maintenance by JICA (Kulyab)

No.	Name	SETM/SEHM	Certificate		
1	Mr.Pirov Hamza	Kulyab SETM			QC(Trainer)
2	Mr.Boronov Salomuddin	Vose SEHM			QC(Trainer)

Master List of Trainees Completed Program under The Project for Improvement of Road Maintenance by JICA (Sogd)

No.	Name	SETM/SEHM	Certificate		
1	Mr.Miraminov Ayub	Sogd SETM			QC(Trainer)
2	Mr.Ochilov Abduqahor	Bobojon Ghafurov SEHM			QC(Trainer)

SETMs/SEHMs	Pavement Inspection			Pavement Repair						Total	Challenges which Confronted SEHMs	
				Pavement Repair			Quality Control					
	Master Trainer	Trainer	Total	Master Trainer	Trainer	Total	Master Trainer	Trainer	Total		Lack of PC Knowledges	Trainees left SEHM either in 2015 or 2016
Gissar SETM	1		1	1	1	2				3		
Vahdat SEHM			0	1	1	2	2	2	2	4		
Varzob SEHM		2	2		2	2				4		
Rudaki SEHM	1		1	1		1				2		
Shahrinav SEHM		1	1		2	2				3		
Hisor SEHM	1		1		1	1				2		
Norak SEHM		1	1			0				1		
Roghun SEHM		1	1			0				1		
Tursunzoda SEHM			0			0				0		
Faizobod SEHM	1		1		1	1				2		
Sub-total	4	5	9	3	8	11	2	2	2	22		
Kurgan-Tyube SETM	1	1	2	1	2	3				5		
Bokhtar SEHM		1	1		2	2				3		
Shahrituz SEHM		1	1		1	1				2		
Pyandzh SEHM			0		1	1				1		
Qubadiyon SEHM	1		1	1		1				2		
Jomi SEHM	1	1	2	1	1	2				4		
Rumi SEHM		2	2		2	2				4		
Vakhsh SEHM		1	1		1	1				2		
Sarband SEHM	1		1			0				1		
N.Khusrav SEHM			0		1	1				1		
Qumsangir SEHM			0		1	1				1		
Yovon SEHM			0		1	1				1		
Jilikul SEHM			0		3	3	2		2	5		
Khuroson SEHM		1	1		1	1				2		
Sub-total	4	8	12	3	17	20	2	0	2	34		
Total	8	13	21	6	25	31	4	2	4	56		
Sogd SETM								2	2	2		
Kulyab SETM								2	2	2		
Total	**8**	**13**	**21**	**6**	**25**	**31**	**4**	**6**	**8**	**60**		

SEHMS where the Experts were prevented access since May 2015

SEHMs where no certification is issued

附属書 **GP-8**

供与機材・携行機材実績（引渡しリスト含む）

JICA The Project for Improvement of Road Maintenance

2 April, 2014

Ref. No.: JICA-CTI April 02

Mr. Ganjalov Sherali Rahmonovich
1st deputy minister
Ministry of Transport

Reference: The Project for Improvement of Road Maintenance

Subject: Hand over VIMS equipment's for measurement of International Roughness Index (IRI)

Dear Sir,

Please kindly be informed you that we planned to hand over VIMS equipment for measurement of International Roughness Index (IRI) in Gissar SETM and Kurgan-Tyube SETM.

Due to this, we kindly please your promotion and support on the above mentioned subject.

We look forward for your continuous cooperation and support.

Very truly yours,

FOR (TAKASHI NAKAJIMA)

Mr. Hiroshi MITA
Chief Adviser, JICA Project Team

The Project for Improvement of Road Maintenance

Исх.No.:JICA-CTI April 04 4 April 2014

Reference: The Project for Improvement of Road Maintenance

Subject: List of hand over equipment's in frame of the Project for Improvement of Road Maintenance

No.	Item	Quantity	Unit	Model	Production year	Unit price in USD $	Total in USD $
1	VIMS (Vehicle Intelligent Monitoring System)	2	Set		2014(New)	2000	4000
	Acceleration Sensor and DAQ			NI - USB 6009			
	- GPS Logger			Transystem 747Pro			
	Rubber Hump (2 humps / set)			Richell 6005			
	- Laptop Computer	2	Set	Acer Aspire E1-572G	2013(New)	685	1370
2	Digital Camera	4	Set	PENTAX WG-3 GPS	2013(New)	228	912

Very truly yours,
Hiroshi MITA
Chief Advisor, JICA Experts Team


02
PENTAX

СТІ

ВАЗОРАТИ НАҚЛИЁТИ ЧУМҲУРИИ ТОҶИКИСТОН

Ф А Р М О И Ш

№ 60 аз «13» 04 2014с. ш.Душанбе

«Оид ба мувозина ворид
намудани таҷҳизотҳо»

Дар асоси Табодули ёддоштҳо ва Созишномаи грантӣ аз 28.03.2013с. байни Ҳукумати Чумҳурии Тоҷикистон ва Агентии Ҷопон оид ба ҳамкориҳои байналмилалӣ (JICA) доир ба «Лоиҳаи азнавкунонии таҷҳизотҳои нигоҳдории роҳҳо дар вилояти Хатлон ва Ноҳияҳои тобеи чумҳурӣ», ф а р м о и ш м е д и х а м:

1. Таҷҳизотҳои пешниҳоднамудаи Агентии Ҷопон оид ба ҳамкориҳои байналмилалӣ ба таври зайл супорида шаванд:

№	Номгуй	Миқдор (адад)	Соли истеҳсол	Арзиш (дол.ИМА)	Арзиши умумӣ (дол.ИМА)	Муассисаи вобаста
1.	Таҷҳизоти рақами барои санҷидани сатҳи ноҳамвории роҳ	2 адад	2014 (нав)	2000	4000	МД «Идораҳои хоҷагии роҳҳои автомобилгарди минтақаҳои Кургонтеппа ва Ҳисор»
2.	Ноутбук (Acer, Aspire E1-572G)	2 адад	2013 (нав)	685	1370	МД «Идораҳои хоҷагии роҳҳои автомобилгарди минтақаҳои Кургонтеппа ва Ҳисор»
3.	Суратгираки рақами (PENTAX WG-3 GPS)	4 адад	2013 (нав)	228	912	МД «Идораҳои хоҷагии роҳҳои автомобилгарди минтақаҳои Кургонтеппа ва Ҳисор»
Ҳамагӣ		8 адад	-	-	6282	

Эзоҳ: курби асъор ба санаи 11.04.2014с. – 1 дол.ИМА = 4,831 сомонӣ.

2. Сардорони Муассисаҳои давлатии «Идораҳои хоҷагии роҳҳои автомобилгарди минтақаҳои Қурғонтеппа (Нуруллоев Б.) ва Ҳисор (Мирзоев О.)»:

- дар асоси санад таҷҳизотҳои зикршударо ба мувозинаи муассисаҳо ворид карда, дар мувозина тағйироти дахлдор ворид намоянд ва истифодаи самараноки онҳоро зери назорати қатъй карор диҳанд;

- дар асоси қарори Ҳукумати Ҷумҳурии Тоҷикистон таҳти №320 аз 4 июли соли 2006 ба мувозина гузаронидани воситаҳои асосии мазкурро бо Кумитаи давлатии сармоягузорй ва идораи амволи давлатии Ҷумҳурии Тоҷикистон мувофиқа намоянд.

3. Назорати иҷрои фармоиши мазкур ба зиммаи муовини якуми Вазир Ганҷалов Ш.Р. вогузор карда шавад.

Вазир Х. Асозода

Фиристода шавад: РСХР, РМБМ, МД «ИХРА минтақаҳои Қурғонтеппа ва Ҳисор»

Проект по улучшению содержания дорог

Исх.No.:JICA-CTI November 29 29 Ноября 2014

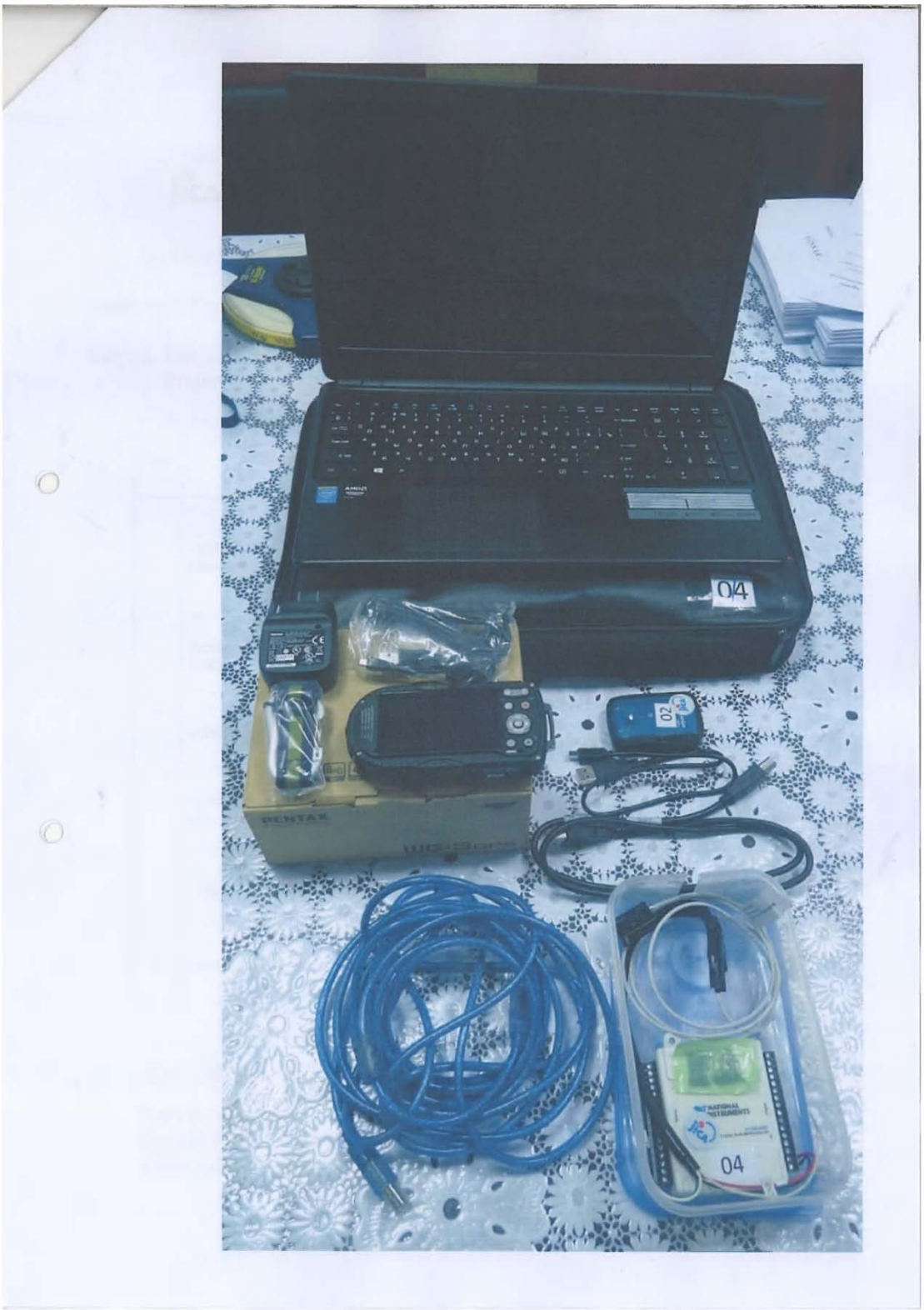
Ссылка: Проект по улучшению содержания дорог

Тема: Перечень оборудований передаваемых в рамках
Проекта по улучшению содержания дорог

No.	Предмет	Количество	Часть	Модель	Цена за единицу (США$)	Итого (США$)
1	АИСМ (Автомобильная Интеллектуальная Система Мониторинга)	2	Комплект		2670	5340
	- Сенсор ускорителя и DAQ			NI - USB 6009		
	- GPS Устройство			Tran system 747Pro		
	- Резиновая Бугорка (2 Бугорок / копл)			Rachel 6005		
	- Компьютер Ноутбук	2	Штук	Acer Aspire E1-572G	685	1370
2	Цифровая Камера	4	Штук	PENTAX WG-3 GPS	228	912

For 橋隆志

Искренне Ваш,
Хироши МИТА
Главный советник, Группа Экспертов JICA


04
02
04

The Project for Improvement of Road Maintenance

Исх.No.:JICA-CTI November 14 14 November, 2016

To: Ministry of transport
of the Republic of Tajikistan

Reference: The Project for Improvement of Road Maintenance

Subject: Hand over DRIMS Case under the framework of the
Project for Improvement of Road Maintenance

Dear Sir,

The Experts Team is pleased to inform your good selves that the team will provide DRIMS equipment case as mentioned below.
The DRIMS equipment case will be handed over based on the ID of DRIMS Equipment such as Case ID 01, 02 for Gissar SETM and Case ID 03, 04 for Kurgan-tyube SETM.

ID	Item	SETM	Piece	Production year	Unit price USD	Total USD
01,02	DRIMS Case	Gissar	2	2016	530	1060
03,04	DRIMS Case	Kurgan-tyube	2	2016	530	1060

Provision is based on understanding that such supply will be effective for the long lasting use of equipment.

Very truly yours,

Hiroshi MITA
Chief Advisor, JICA Experts Team

Attachment: DRIMS equipment case photo


DRIMS

The Project for Improvement of Road Maintenance

29 July, 2015

Ref. No.: JICA-CTII

Mr. Mirzoev Sunrob
First Deputy Minister
Ministry of Transport
Republic of Tajikistan

Reference: The Project for Improvement of Road Maintenance

Subject: Hand over and Installation of JICA Supplied laboratory equipment for Quality Control

Dear Sir,

Please kindly be informed that on the 16th of June, 2015we have successfully handed over JICA supplied laboratory equipment to Gissar and Kurgan-Tyube regions for quality control.
The installation of laboratory equipment for Quality Control was done on the 22nd of June, 2015 in Gissar region in Vahdat laboratory and on the 15th of July, 2015 was successfully installed and checked by connecting in power in Kurgan-Tyube region in Jilikul laboratory.

We look forward for your continuous cooperation and support.

Very truly yours,

For 小川淳一郎

Mr. Hirosni MITA
Chief Adviser, JICA Project Team

Cc: State Enterprises on Transport Management of Gissar region
State Enterprises on Transport Management of Kurgan-Tyube region

No	Item	Quantity		Model
1	Manual Marshall Compaction	2	Nos	DS-63
2	Marshall Base Plate	6	Nos	DB-15
3	Marshall Collar	6	Nos	DB-15-C
4	Marshall Mold	24	Nos	DB-15-1
5(1)	Marshall Specimen Extruder (without Hydraulic Jack)	2	Nos	DS-80M
6	Digital Thermometer	2	Nos	DP-350
7	Sensor for Thermometer	2	Nos	JB-16
8	LP Gas Ring	2	Nos	DL-300
9	Rectangular Sample Pans	12	Nos	DL-41
5(2)	Hydraulic Jack for Marshall Specimen Extruder	2	Nos	DS-80M

C/No.	Type of package	No.	Description	Model/Specifications	Q'ty	Net weight (kg)	Gross weight (kg)	Measurement
						244	340	1570×920×1100
1	Case	4	Core drilling machine	TA-342	2			1.589M3
				Inc. Instruction manual 2 pc/set				
		5	Blade for above	φ100*300㎜	4			
						256	340	700×1070×1960mm
2	Case	6	Asphalt compaction machine	TA-352	2			1.468M3
				Accessories				
				・Cable ： 3.5SQ 3P/VCT cord 5M				
				・Spare rammer （4.5kg） ： 1pc				
				・Instruction manual 2 pc/set				
						80	140	800×770×1110mm
3	Case	8	Marshall apparatus	A-11/A-12/A-13/A-14/A-15	2			0.684M3
				Accessories :				
				Prooving ting : 50kN				
				Test head : 1 pc/set				
				Flow meter : 2 pcs/set				
				Mould : 3 pcs/set				
				Collar : 3 pcs/set				
				Base plate : 1 pc/set				
				Cable : 3.5SQ 3P/VCT cord 5M/set				
				Instruction manual 2 pcs/set				
						138	250	1520×1390×950mm
4	Case	9	Stand for Marshall apparatus	Stand for above apparatus	2			2.007M3
				W600*D500*H650㎜, SS400				
						203	320	1760×970×1280mm
5	Case	30	Constant temperature oven	TG-112	1			2.185M3
				Instruction manual 2 pcs/set				
						203	320	1760×970×1280mm
6	Case	30	Constant temperature oven	TG-112	1			2.185M3
				Instruction manual 2 pcs/set				

						645	820	470×2200×1530mm
7	Case	1	Step-down transformer	LD21-01KF2+TYC-500	2			4.948M3
		2	Step-down transformer	3SD-05KB+TYC-05K	2			
		3	Step-down transformer	3SD-075KB+TYC-05K	2			
		7	Tamper	A-19	2			
		10	Test head	A-14	2			
		11	Flow meter	A-13	8			
		12	Stainless beaker	G-14 5000cc	6			
		13	Polysthylene beaker	5000cc	6			
		14	Stainless beaker	G-14 3000cc	6			
		15	Polysthylene beaker	3000cc	6			
		16	Stainless beaker	G-14 1000cc	6			
		17	Thermometer (Glass rod)	G-23d	4			
7	Case	18	Digital thermometer	DP-350	2			
				including needle type sensor				
				Instruction manual 2 pc/set				
		19	Rod type sensor for above	JB-16-3C	6			
		20	Asphalt curing bath	TA-306	2			
				Instruction manual 2 pcs				
		21	Dial gauge 20mm	DG-17	10			
		22	Test sieve for asphalt	TA-332	4			
				Stainless made				
				Opening：75㎛、150㎛、300㎛、425㎛、600㎛、1.18㎜、2.00㎜、2.36㎜				
				4.75㎜、9.5㎜、13.2㎜、19.0㎜、26.5㎜、31.5㎜、37.5㎜、 53.0㎜、63.0㎜、75.0㎜、90.0㎜				
				Accessory : Receiver, cover 1 pc each				
		23	Test sieve 0.075mm	TC-242	4			
		24	Stainless basket	C-17	2			
		25	Electronic balance	GF-6000	2			
			with stand & water bath	Instruction manual 2 pcs/set				
				Stand, Water bath				

		26	Electronic balance	GF-2000	2			
				Instruction manual 2 pcs/set				
		27	Enamelled tray	G-322 W495×D335×H70㎜	8			
		28	Enamelled tray	G-322 W365×D275×H55㎜	20			
		29	Caliper 30cm	GT-102c	2			
		31	Consumablews	Contents :				
		31 - 1	Waste cloth	Cotton 100% 5kg /set	2			
		31 - 2	Leather glove	2 pairs/set	2			
		31 - 3	Working gloves	3 dozen/set	2			
		31 - 4	Tammping rod	φ16*500㎜ 1pc/set	2			
		31 - 5	Core storage case	2 pcs/set	2			
		31 - 6	Plastic hammer	400 g L=300㎜	2			
		31 - 7	Wooden hammer	φ50㎜ L=300㎜	2			
		31 - 8	Filter paper	φ100㎜ 5 packs/set	2			
		31 - 9	Mixing bowl	φ300㎜ 3 pcs/set	2			
		31 - 10	Mixing spoon	L=300㎜ 5pcs/set	2			
		31 - 11	Hand scoop	L=286㎜ roud type 3 pcs/set	2			
		31 - 12	Hand scoop	L=286㎜ Square type 2 pcs/set	2			
		31 - 13	Spatula	L=/245mm 5pcs/set	2			
		31 - 14	Spatula	L=/215mm 5pcs/set	2			
		31 - 15	Wire brush	L=130㎜ Brush : brass : 1 pc/set	2			
		31 - 16	Wire brush	L=130㎜ Brush : steel, 1 pc/set	2			
		31 - 17	Bymetal thermometer	: 0～200℃ φ110㎜ 2pcs/set	2			
		31 - 18	Bymetal thermometer	0～200℃ : φ80㎜ 1 pc/set	2			
Total			**Seven(7) cases**			**1,769**	**2,530**	**15.066M3**

HAND OVER JICA SUPPLIED LABORATORY EQUIPMENT FOR QUALITY CONTROL FOR GISSAR REGION

Hand over laboratory equipment for Gissar region

Hand Over JICA Supplied Laboratory Equipment
Figure 1

Item No. & Description:
No. 5 Constant Temperature Oven

Hand over JICA supplied laboratory equipment
Figure 2

Item No. & Description:
No.2 Asphalt Compaction Machine, No.2-1 Cable, No.2-2 Spare rammer (4.5kg), No.2-3 Instruction manual, No.9 Tamper

Hand over laboratory equipment for Gissar region

Hand over JICA supplied laboratory equipment
Figure 3

Item No. & Description:
No. 12 Stainless beaker, No. 13 Polyethylene beaker, No.14 Stainless beaker, No. 15 Polyethylene beaker, No. 16 Stainless beaker, No. 17 Thermometer (Glass rod), No.18 Digital thermometer, No.19 Rod type sensor for digital thermometer, No.21 Dial gauge 20mm, No.27 Enameled tray, No.28 Enameled tray,No.29 Caliper 30cm, No.30-1 Waste cloth, No.30-2 Leather gloves, No.30-3 Working gloves, No.30-4 Tamping rod, No.30-5 Core Storage Case, No. 30-6 Plastic hammer, No.30-7 Wooden hammer, No.30-8 Filter paper, No. 30-9 Mixing bowl, No. 30-10 Mixing spoon, No.30-11 Hand scoop, No. 30-12 Hand spoon, No. 30-13 Spatula, No.30-14 Spatula, No. 30-15 Wire brush, No.30-16 Wire brush, No.30-17 Bimetal thermometer, No. 30-18 Bimetal thermometer

Hand over JICA supplied laboratory equipment
Figure 4

Item No. & Description:
No.22 Test Sieve for Asphalt, 22-1 Size: 75mm, 150mm, 300mm, 425mm, 600mm, 1.18mm, 2.00mm, 2.36mm, No.22-2 Size: 4.75mm, 9.5mm, 13.2mm, 19.0mm, 26.5mm, 31.5mm, 37,5mm, 53.0mm, 63.0mm, 75.0mm, 90.0mm, No.22-3 Receiver, cover one pcs each, No. 23 Test sieve 0.075mm TC 242

Hand over laboratory equipment for Gissar region

Hand over JICA supplied laboratory equipment
Figure5

Item No. & Description:
No.1 Core drilling machine, No. 1-1 Blade for Core drilling machine, No.6 Step-down transformer LD21-01KF2+TYC-05K, No.7 Step-down transformer 3SD-05KB+TYC-05K, No.8 Step-down transformer 3SD-075KB+TYC-05K, No.24 Stainless basket, No.25 Electronic balance GF-6000, No.25-1 Stand for electronic balance GF-6000, No.25-2 Water bath, No.26 Electronic balance GF-2000

Hand over JICA supplied laboratory equipment
Figure6

Item No. & Description:
No. 3 Marshall Apparatus, No.3-1 Proving ring 50kN, No. 3-2 Test head, No.3-3 Flow meter, No.3-4 Mold, No. 3-5 Collar, No. 3-6 Base plate, No.3-7 Cable, No. 3-8 Instruction manual, No.10 Test head, No.11 Flow meter, No.20 Constant Temperature Oven

Hand over laboratory equipment for Gissar region

Hand over carried laboratory equipment
Figure 7

Item No. & Description:
No.1 Manual Marshall Compaction, No.2 Marshall Base plate, No.3 Marshall Collar, No. 4 Marshall Mold, No.5 Marshall Specimen Extruder with Hydraulic Jack, No. 7 Sensor for digital thermometer, No.8 LP Gas Ring, No.9 Rectangular Sample Pans

INSTALLATION OF JICA SUPPLIED LABORATORY EQUIPMENT FOR QUALITY CONTROL FOR IN GISSAR REGION, VAHDAT AP LABORATORY

Installation of laboratory equipment in Gissar region

Installation of JICA Supplied Laboratory Equipment
Figure 1

Item No. & Description:
No. 1Asphalt Compaction Machine TA-352

Installation of JICA supplied laboratory equipment
Figure 2

Item No. & Description:
No.2 Constant Temperature Oven TG-112

Installation of laboratory equipment in Gissar region

Installation of JICA supplied laboratory equipment
Figure 3

Item No. & Description:
No. 3 Marshall Apparatus and Stand for Marshall Apparatus

Installation of JICA supplied laboratory equipment
Figure 4

Item No. & Description:
No.4 Asphalt Curing Bath TA-306

Installation of laboratory equipment in Gissar region

Installation of JICA supplied laboratory equipment
Figure5

Item No. & Description:
No.5 Electronic balance GF-6000 with stand, water bath and Stainless basket

Installation of JICA supplied laboratory equipment
Figure6

Item No. & Description:
No. 6 Marshall Specimen Extruder

Installation of laboratory equipment in Gissar region

Installation of JICA supplied laboratory equipment
Figure7

Item No. & Description:
No. 7 Core drilling machine TA-342 with Blade 100*300mm

HAND OVER JICA SUPPLIED LABORATORY EQUIPMENT FOR QUALITY CONTROL FOR KURGAN-TYUBE REGION

Hand over laboratory equipment for Kurgan-Tyube region

Hand Over JICA Supplied Laboratory Equipment
Figure 1

Item No. & Description:
No. 12 Stainless beaker, No. 13 Polyethylene beaker, No. 14 Stainless beaker, No. 15 Polyethylene beaker, No.16 Stainless beaker, No. 17 Thermometer (Glass rod), No. 18 Digital thermometer, No. 19 Rod type sensor for Digital thermometer, No. 21 Dial gauge 20mm, No. 27 Enameled tray, No.28 Enameled tray, No. 29 Caliper 30cm, No.30-1 Waste Cloth, No.30-2 Leather glove, No. 30-3 Working gloves,No.30-4 Tamping rod, No. 30-5 Core Storage Case, No. 30-6 Plastic hummer, No. 30-7 Wooden hummer, No. 30-8 Filter paper, No. 30-9 Mixing bowl, No. 30-10 Mixing spoon, No. 30-11 Hand scoop, No. 30-12 Hand scoop, No.30-13 Spatula, No. 30-14 Spatula, No.30-15 Wire brush, No. 30-16 Wire brush, No.30-17 Bimetal thermometer, No. 30-18 Bimetal thermometer

Hand over JICA supplied laboratory equipment
Figure 2

Item No. & Description:
No. 22,22-1,22-2 Test Sieve for Asphalt-TA332, Opening: 75mm,150mm,300mm, 425mm, 600mm, 1.18mm, 2.00mm, 2.36mm, 4.75mm,9.5mm, 13.2mm, 19.0mm, 26.5mm, 31.5mm, 37.5mm, 53.0mm, 63.0mm, 75.0mm, 90.0mm, No.22-3Receiver, cover 1pc each, No.23Test Sieve 0.075mm TC-242

Hand over laboratory equipment for Kurgan-Tyube region

Hand over JICA supplied laboratory equipment
Figure 3

Item No. & Description:
No.3 Marshall Apparatus, Accessories: No.3-1Proving ring 50kN, No.3-2 Test head,No.3-3 Flow meter, No. 3-4Mold, No.3-5 Collar, No. 3-6 Base plate, No.3-7Cable 3.5SQ3P/VCT, Instruction manual, No. 4 Stand for Marshall Apparatus, No.10 Test head, No. 11 Flow meter, No.20 Asphalt curing bath

Hand over JICA supplied laboratory equipment
Figure 4

Item No. & Description:
No. 1 Core drilling machine, No.1-1 Blade for core drilling machine, No.2 Asphalt compaction machine, No.2-1 Cable, No.2-2 Spare rammer (4.5kg), No. 2-3Instruction manual, No.5 Constant Temperature oven, No. No.6 Step-down transformer LD21-01KF2+TYC-500, No.7 Step-down transformer 3SD-05KB+TYC-05K, No.8 Step-down transformer 3SD-075KB+TYC-05K, No. 24 Stainless basket, No.25 Electronic balance GF-6000, No.25-1 Stand, No.25-2 Water bath

Hand over laboratory equipment for Kurgan-Tyube region

Hand over carried laboratory equipment
Figure5

Item No. & Description:
No. 1 Manual Marshall Compaction, No.2 Marshal Base Plate, No.3 Marshall Collar, No.4 Marshall Mold No. 5Marshall Specimen Extruder with Hydraulic Jack, No.7 Sensor for digital thermometer, No.8 LP Gas Ring, No.9 Rectangular Sample Pans

INSTALLATION OF JICA SUPPLIED LABORATORY EQUIPMENT FOR QUALITY CONTROL IN KURGAN-TYUBE REGION, JILIKUL AP LABORATORY

Installation of laboratory equipment in Kurgan-Tyube region

Installation of JICA Supplied Laboratory Equipment
Figure 1

Item No. & Description:
No. 1Asphalt Compaction Machine TA-352

Installation of JICA supplied laboratory equipment
Figure 2

Item No. & Description:
No.2 Constant Temperature Oven TG-112

Installation of laboratory equipment in Kurgan-Tyube region

Installation of JICA supplied laboratory equipment
Figure 3

Item No. & Description:
No. 3 Marshall Apparatus and Stand for Marshall Apparatus

Installation of JICA supplied laboratory equipment
Figure 4

Item No. & Description:
No.4 Asphalt Curing Bath TA-306

Installation of laboratory equipment in Kurgan-Tyube region

Installation of JICA supplied laboratory equipment
Figure5

Item No. & Description:
No.5 Electronic balance GF-6000 with stand, water bath and Stainless basket

Installation of JICA supplied laboratory equipment
Figure6

Item No. & Description:
No. 6 Marshall Specimen Extruder

Installation of laboratory equipment in Kurgan-Tyube region

Installation of JICA supplied laboratory equipment
Figure7

Item No. & Description:
No. 7 Core drilling machine TA-342 with Blade 100*300mm

The Project for Improvement of Road Maintenance

Исх.No.:JICA-CTI November 28 28 November, 2016

To: Ministry of Transport
of the Republic of Tajikistan

Reference: The Project for Improvement of Road Maintenance

Subject: Hand over printer Canon 2520i
under the framework of the Project for Improvement of Road Maintenance

Dear Sir,

The Experts Team is pleased to inform your good selves that due to completion of the Project for Improvement of Road Maintenance printer Canon 2520i will be handed over to Ministry of Transport.

Current printer Canon 2520i was used during realization of the Project for Improvement of Road Maintenance.

Very truly yours,

Hiroshi MITA
Chief Advisor, JICA Experts Team