The Kingdom of Cambodia
Ministry of Public Works and Transport

The Kingdom of Cambodia
Project for the Modernization of Vehicle Registration and Inspection Administration System (MVRI)
Project Completion Report (PCR)

September 2019

The Japan International Cooperation Agency (JICA)

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Ⅰ. Basic Information of the Project

1 Country

- The Kingdom of Cambodia

2 Title of the Project

- The Project for the Modernization of Vehicle Registration and Inspection Administration System (MVRI) in Cambodia

3 Duration of the Project (Planned and Actual)

- Three (3) Years

4 Background

In Cambodia, the Ministry of Public Works and Transport (MPWT) manages land transport sectors through the General Department of Transport (GDT) that administers the Department of Land Transport (DLT). Recently, the number of automobiles and two-wheeled vehicles has rapidly increased about 20 percent per year. Though there are laws for vehicle registration management and vehicle inspections, the existing government ordinances, ministerial ordinances, and penalties are not sufficient and many vehicles in use are low-quality inadequately maintained ones because most of the vehicles are secondhand ones. In such a situation, a basic policy for vehicle management and a basic IT system were introduced by DLT in 2003 owing to assistance by Korea. However, this system has such drawbacks that system customization exclusive for vehicle management can be performed because of a multipurpose database covering a resident register or the like, and besides, its data cannot be shared with the ministry and authority concerned. For this reason, adequate vehicle registration and vehicle inspections cannot be realized even at present, and there is a problem that the current number of vehicles and the current owners of vehicles cannot be grasped in Cambodia. In this situation, it is an urgent issue for the government of Cambodia to enhance the institutions, rules, and organizations and to improve the IT system essential for such enhancements so that the vehicle registration and vehicle inspection program can be more effective. In this context, MPWT asked JICA to conduct the Administrative Reform Project for Cambodia's Vehicle Registration and Inspection Project. In response to this request, JICA made a survey for detailed planning in December 2015 and determined a set of corporation components in consultation with related organizations in Cambodia. Finally, R/D was concluded in February 2016 through the procedures of both governments.

In NSDP's rectangular strategy since 2014, its main task was to achieve good governance focusing on four items: (1) strengthening the agriculture, (2) reconstructing and constructing the infrastructure, (3) developing the private sector and creating jobs, and (4) building the capabilities and developing human resources as critical tasks. As one of the important items in (2) reconstructing and constructing the infrastructures, traffic safety is specially taken into consideration through Land Traffic Act enhancements and the enhancement of the vehicle inspection program and the issue of vehicle inspection certificates and strict application of the Land Traffic Act. In addition, laws and regulations for the vehicle registration and vehicle inspection program are continuously conducted, and the vehicle

registration and vehicle inspection program are enhanced and improved taking advantage of IT systems. Furthermore, the strategy has clarified that efforts should be made to enhance the capabilities of staff working in road transport and to shorten the time required for vehicle registration. For this reason, it can conclude that this project aiming at improving the administration for vehicle management should match the policy and contents of development plans in Cambodia.

In the Operation Development Plan for Cambodia of the government of Japan (drafted on April 2015), one of the most critical issues for assistance is to strengthen the foundation of economy, and its main task is to construct the economic infrastructure of Cambodia. From a general viewpoint, the level of transport infrastructure is still low and to strengthen the foundation of economy is still critical including the fields of human resources, policies, and institutions. To cope with these problems, assistance should be given focusing on the development of a national road network system that leads to economic and/or industrial development through stable and efficient logistics and road transport with high priority (vehicle registration and vehicle inspections), its concrete corporative program is Transport and Power Infrastructure Construction Program, and this project is positioned as the same program as well.

5 Overall Goal and Project Purpose

5.1 Overall Goal

- Vehicle registration and inspection are smoothly promoted in Cambodia.

5.2 Project Purpose:

- The administration of vehicle control by MPWT is improved.

6 Implementing Agency

- General Department of Land Transport (GDLT), Ministry of Public Works and Transport (MPWT)

II. Results of the Project

1 Results of the Project

1.1 Input by the Japanese side (Planned and Actual)

Inputs	Plan (as of Aug 2016)	Current (as of Dec 2018)
Experts	Long-term Expert …2 Chief advisor (1) / Coordinator (1) Short-term expert …14 Operational management (2) Vehicle registration administration system (2) Vehicle registration planning and IT system analysis, planning, and improvement (1) Vehicle inspection administration system and planning (1) Vehicle inspection administration system (1) Vehicle inspection planning (1) Vehicle administration and inspection system (3) IT network technology (1) Monitoring (1) PR activity (1)	1. Long-term Expert … 2 Chief advisor (1) / Coordinator (1) 2. Short-term expert As per attached sheet Form3-2 (PDM) and Form 3-3 (PO).
Trainees received	Provision of Training in Japan Seminars in Cambodia	As per attached sheet Form3-2 (PDM) and Form 3-3 (PO).
Equipment	N/A	Equipment of IT system Data server Storage, Rack, Uniklair Access Floor Software, Security Equipment Network Equipment UPS Wireless Access Point, Lan Cable, etc.
Others	N/A	N/A

1.2 Input by the Cambodian side (Planned and Actual)

Inputs	Plan (as of Aug 2016)	Current (as of Dec 2018)
Cambodia-side operational expenses	1.Personnel Project director Project manager Counterpart personnel from MPWT 2.Provision of the project office and facilities necessary for the Project	1.Personnel Project Director H.E. Tauch Chankosal Project Manager H.E. Chan Dara ⇒ Peou Maly[1] ⇒ Voun Chhoun[2]

[1] Due to the reorganization of MPWT, H.E. Chan Dara was assigned to another department, and H.E. Peou Maly is the newly assigned person in charge of GDLT.

[2] Due to the reorganization of MPWT, H.E. Peou Maly was assigned to another department, and H.E. Voun Chhoun is the newly assigned person in

	implementation (at MPWT) 3.Expenses necessary for project implementation -Local traveling costs and daily subsistence allowance (DSA) for counterpart personnel in Cambodia -Other expenses	Counterpart personnel from MPWT Mr. Chea Socheat ⇒ Ms. Men Chansokol(Vehicle Registration / Inspection) Mr. Suon Vanhong ⇒Mr. Ly Kong ⇒Mr. Suon Vanhong (Vehicle Registration) Mr. Meng Chhun Heng ⇒ Mr. Taing Peou ⇒ Mr. So Pisey (Vehicle Inspection) Mr. Chheng Samnang (IT) 2.Provision of the project office at GDT (transport)

charge of GDLT.

1.3 Activities (Planned and Actual)

1.3.1. Operation flow chart

- Operation of this project was achieved along with the following flow chart.

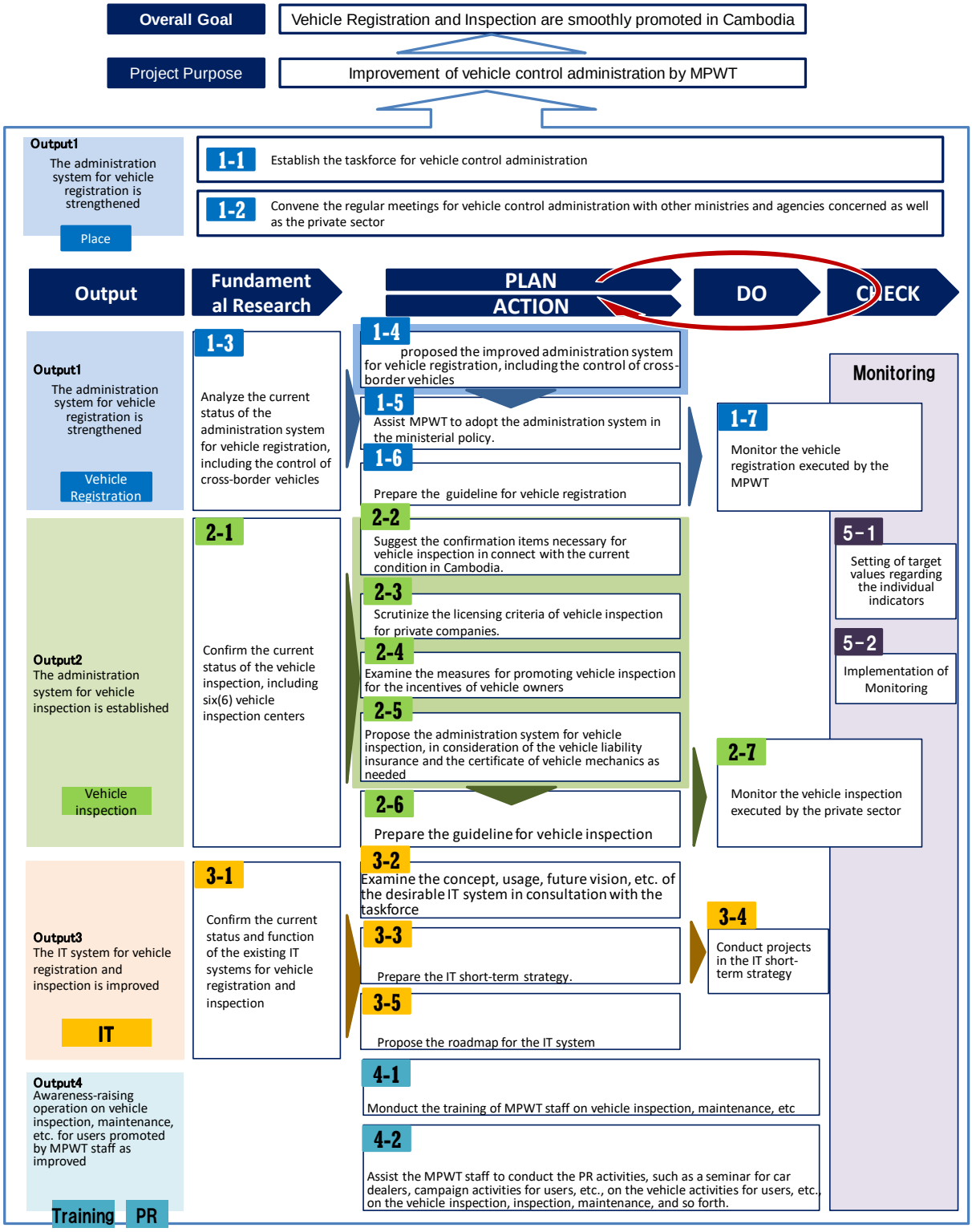


Figure 1 flow chart of the project

1.3.2. Planned and Actual activities for output-1(strengthening of vehicle registration system)

(1) Output 1: Strengthening of vehicle registration system

Activity 1-1 Establish the taskforce for vehicle control administration, including GDT(taxation), GDCE, MOI(Traffic Police), MPTC, and private sector

<Planned Activities>

- After the commencement of the operations, we establish a vehicle-control administration taskforce within three months. The main objective of the vehicle-control administration task force is to discuss the availability of the information sharing of vehicle registration in the project with related ministries.

<Actual Activities>

[Preparation of the establishment]

- JICA experts explained about the purpose and establishment of the taskforce to H.E. Tauch Chankosal, Secretary of state and H.E. Chan Dara, Director general, and explained it again to H.E. Sun Chanthol, Senior minister, in the Kick Off seminar which is held in August 2016.
- After the seminar, the draft of the detailed purpose, the expected effects, and the composition of the meeting was explained and the assignment of the member was requested to H.E. Chan Dara, Director general in September 2016.

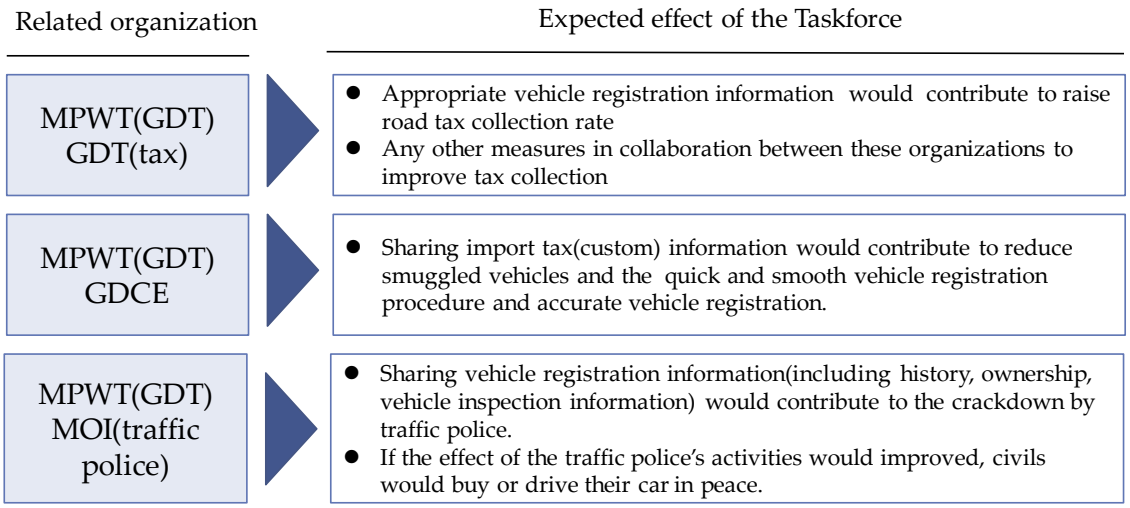


Figure 2 Expected effect of the Taskforce

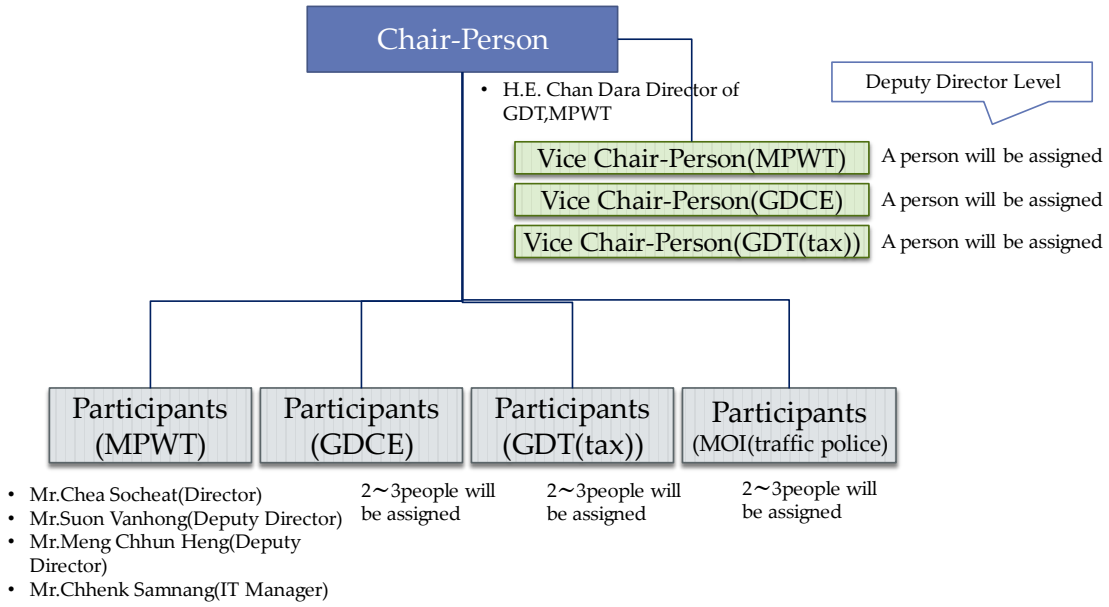


Figure 3 Expected composition of the meeting

- H.E. Chan Dara, Director general, called the person concerned as below in order to assign them to the taskforce by using the revised version of the detailed explanation of the taskforce document, and they agreed on the assignment requested by H.E. Chan Dara.

Table 1 Assignment of the Taskforce

No	Name	Position and department
1	H.E. Chan Dara	Director General, General Department of Land Transport (MPWT)
2	Mr. Chea Socheat	Director, Department of Land Transport (GDLT, MPWT)
3	Mr. Suon Vanhong	Deputy Director of Land Transport in charge of vehicle registration (GDLT, MPWT)
4	Mr. Meng Chhun Heng	Deputy Director of Land Transport in charge of vehicle inspection (GDLT, MPWT)
5	Mr. Ly Kong	Chief of Vehicle Registration Office (GDLT, MPWT)
6	Mr. Taing Peou	Chief of Vehicle Inspection Office (GDLT, MPWT)
7	Mr. Chheng Samnang	Deputy Chief of research and Data Collection office (GDLT, MPWT)
8	others	

- As the candidates of the taskforce members were agreed to be the members, JICA experts had a meeting with H.E. Tauch Chankosal, Secretary of state, in the same week and explained the purpose and the assignment of the taskforce and got his consent for it. After that MPWT issued letters to related ministries, and then Task Force was established.
- In consequence, JICA experts judged the taskforce is not necessary in terms of more efficiency, and MPWT decided not to hold the 2nd Taskforce meeting in September 2017.

- As mentioned above, Activity 1-1 has been completed, based on the discussion point in the 1st taskforce. Since then, MPWT has held continuous discussion about the information sharing with related ministries.

[Establishment of the Task Force]

- The first taskforce was held in March 2017.
- All the members including members from related ministries are as follows;

Table 2 The members of the taskforce

No.	Name	Position	Ministry/Institution
1	H.E. Peou Maly	Director General, General department of Land Transport	GDLT, MPWT
2	Mr. Chea Socheat	Director, Department of Land Transport (DLT)	GDLT, MPWT
3	Mr. Suon Vanhong	Deputy Director, DLT	GDLT, MPWT
4	Mr. Meng Chhun Heng	Deputy Chief of Inspection Department, DLT	GDLT, MPWT
5	Mr. Chheng Samnang	Deputy Chief, DLT	GDLT, MPWT
6	Mr. Heang Sotheayuth	Director, Department of IT and PR of Cabinet Office	MPWT
7	H.E. Ken Sambath	Deputy Director General	GDT(Tax), MoEF
8	Mr. Sok Sovithyea	Deputy Director	GDCE, MoEF
9	H.E. Khieng Sokunthea	Director of Khmer National Identification, General Department of Identification	MoI (ID)
10	H.E. Run Rathveasna	Director, Department of Traffic Police and Public Order, General commissariat of national police	MoI (Traffic Police)

[Modification of the plan]

- The main purpose of the taskforce was to discuss the information sharing regarding vehicle administration.
- MPWT recognized the importance of the information sharing between MPWT and related ministries, and started to hold several meetings by themselves with all related ministries separating from the taskforce meetings.

Opening remarks_H.E.Peou Maly

State of discussion-1

State of discussion-2

Explanation from vehicle registration expert

Explanation from GDT (tax)

Explanation from GDCE

Explanation from MOI (ID)

Explanation from MOI (Traffic Police)

Explanation from vehicle Inspection expert

Group photo

Activity 1-2 Convene the regular meetings for vehicle control administration with other ministries and agencies concerned as well as the private sector

<Planned Activities>

- In addition to Activity 1-1, we hold regular meetings regarding vehicle-control administration, with the objectives to report on the achievement of the project and to obtain necessary approval for the study results.

<Actual Activities>

- In August 2016, Kick-off seminar for MPWT executives were held, and started with an openening remarks by H.E. Sun Chanthol, Senior minister of MPWT. And also, JICA experts delivered the presenationa on an introduction of members of all JICA experts and an explanation of workplan and IT systems related to vehicle registration management in Japan. The workplan was approved in the meeting.
- Based on the approval of the workplan, the JCC meeting has been held twice a year (in December and June) , since the 1st JCC was held in June 2016.

Table 3 Agenda of the JCC

JCC	Main topics
Sep 2016 (kick off)	・ Explanation of the workplan
Dec 2016 (The 1st JCC)	・ Explanation of the subjects ・ Progress report on vehicle registration ・ Progress report on vehicle inspection ・ Progress report on IT system
Jun 2017 (The 2nd JCC)	・ Explanation of the Subjects ・ Progress report on IT system ・ Progress report on Vehicle Registration ・ Progress report on Vehicle Inspection ・ Progress report on the Monitoring System
Dec 2017 (The 3rd JCC)	・ Overview of the project ・ Progress report on IT System ・ Progress report on Registration ・ Progress report on Inspection

Jun 2018 (The 4th JCC)	・ Summary of MVRI project progress ・ IT System: Presentation on concrete improvement activities and report on progression of request of grant aid. ・ Registration: Presentation on concrete improvement activities and explanation of improvement plan ・ Inspection: Presentation on concrete improvement activities and explanation of improvement plan ・ Monitoring: Presentation on the actual achievement ・ Public Relation: Presentation on PR activities
Dec 2018 (The 5th JCC)	・ Summary of MVRI project progress ・ IT System: Presentation on concrete improvement activities and report on progression of request of grant aid. ・ Registration: Presentation on concrete improvement activities and explanation of improvement plan ・ Inspection: Presentation on concrete improvement activities and explanation of improvement plan ・ Monitoring: Presentation on the actual achievement ・ Public Relation: Presentation on PR activities
Jun 2019 (The 6th JCC)	・ Project Completion Report

Activity 1-3　Analyze the current status of the administration system for vehicle registration

＜Planned Activities＞

- At first, we ascertain the system by means of investigation of publicly known information and previous studies.
- Secondly, we investigate actual situation by means of local interviews and field investigation targeted at the Ministry of Public Works and Transport, the Ministry of Economic and Finance (MEF), the Ministry of Interior, the Ministry of Posts and Telecommunications, vehicle dealers, etc. We also conduct interviews the Japanese auto industries which operate in Cambodia and know well about the issues with the present system, the impacts on the expansion of business operations, etc.
- Based on the investigation results, issues are extracted from the gap between the system and reality, from the comments of those involved, etc.
- JICA experts take part in the JCC and make a report with MPWT in the meeting. Taking into account comments and questions raised at the JCC, JICA experts reconsider how to solve these issues including necessity of amendment of the action plan.
- Also, consultant team planned to introduce systems and policies in neighboring countries

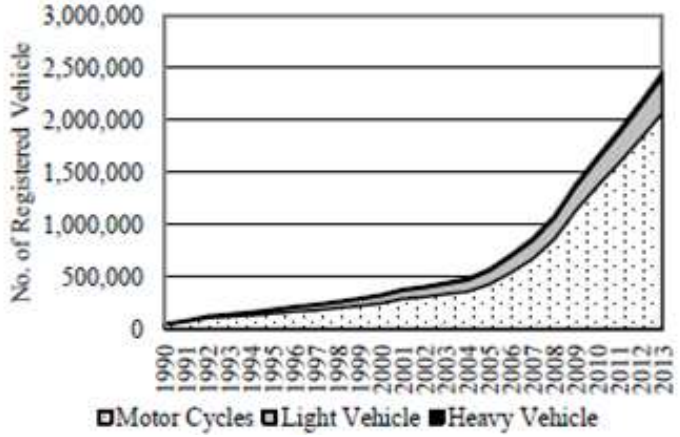
<Actual Activities>

①Ascertainment of system by means of investigation of publicly known information and previous studies

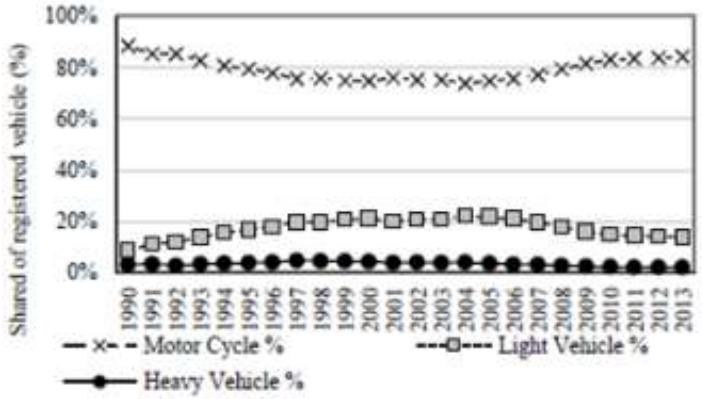
- Although JICA conducted the feasibility study of vehicle registration and inspection system in Cambodia to design this project outline in 2015, based on the new road traffic law which published in January 2016, related sub-decree, prakas, circular have been reissued. Therefore, soon after this project has started, we confirmed what

has been changed and how the above mentioned project outline has been affected.

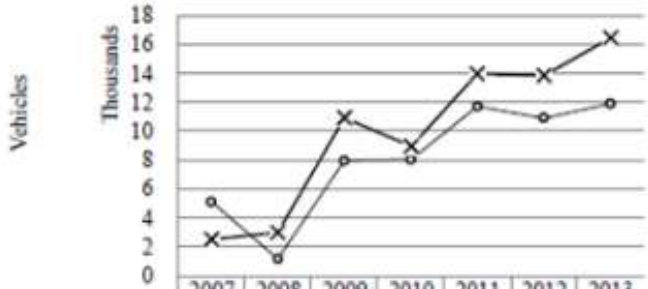
- The result of the ascertainment of the difference between current legislation and previous one, JICA experts have identified following four points as below;
  - The administration of the number plate and the production of registration certificate and drivers' license (Circular No.001 in 2015)
  - The transfer of the vehicle registration function for automobiles from Department of Public Works and Transport (DPWT) to One window service office (Prakas and Guideline in February 2016)
  - The number plate for the right handle vehicle (Prakas No.118 in March 2016)
  - The procedure of ownership transfer in the case that the previous owner is unknown (Prakas No.119 in March 2016)
- Also, MPWT has started to sell the special number plates based on the Joint Prakas of MPWT and MoEF(GDTax, GDCE) in July 2017. And further modification of the road traffic law and sub-decree are planned.
- Since the vehicle registration system has had a strong connection with the IT system, we cooperated with Activity 3-1 to grasp the flow of the latest vehicle registration procedure as appropriate.
- The result of the fundamental research is as follows

item	Result of the research
Number of registered vehicles	• The number of registered vehicles in Cambodia tends to increase recently. If we break down this number into vehicle types, it becomes apparent that most of them are motorcycles. Indeed motorcycles occupy about 84% of total vehicles registered in 2013. In addition, the overall number of vehicles has increased more rapidly in recently. Number of registered vehicles including motorcycles 

Percentage of registered vehicles including motorcycles



Number of registered vehicles by year



	2007	2008	2009	2010	2011	2012	2013
Light bus & cargo	5,111	1,168	7,946	8,033	11,710	10,905	11,898
Heavy Vehicle	2,498	2,989	10,929	8,969	13,956	13,849	16,467

Reference：**Overview on Transport Infrastructure Sectors in Cambodia 2015**

Legal basis of vehicle regitration

- The basic structure of the Cambodian legal system is as follows;
- Constitution＞Law＞Royal Decree＞Sub-Decree＞Prakas＞Circular＞Other regulations (Orders, Directions, etc.)
- On this basis, legislations related to the vehicle registration administrative system are listed as below;

Table 4 Legal basis of vehicle registration administrative system

No.	Category	Name	Overview
1	Law	Road Traffic Law (January 9, 2015)	It regulates the basic principles of the vehicle registration administration system
2	Sub-decree	Sub-decree No.77 (November 28, 2008)	On the issuance of the vehicle's number plate
3	Circular	Circular No.001 (January 14, 2004)	On the implementation of Sub-decree No.77
4	Guideline	Additional Guideline No.037 (October 01, 2007)	On the implementation of functional delegation of vehicle registration to Provincial/Capital Department of Public Works and Transportation
5	Prakas	Prakas No.095 (February 10, 2012)	On the shape and size of all types of vehicles' number plate
6	Circular	Circular No.001 (February 04, 2015)	On the management of vehicles' number plate and production of vehicle ID and driving license
7	Prakas	Prakas No.118 (March 11, 2016)	On the number plate for right steering wheel car
8	Prakas	Prakas No.118 (March 11, 2016)	On the formats and procedures of proper transfer for the vehicle, which the original owner is unfindable
9	Prakas	Prakas No.066 (February 01, 2016)	On the functional delegation of motorcycles registration to Capital/District/Khan Administration at One-Window service Office
10	Prakas	Joint Prakas No.863 (July 19, 2016)	On sales of number plate of family vehicle and small scale vehicle
11	Prakas	Joint Prakas No.864 (July 19, 2016)	On management of revenue from sales of special number plate

- Through the research under activity 1-3-1, we learned that Sub-decree No.77 (November 28, 2008) will be revised into a new royal-decree.
- Furthermore, we will continue to collect information on other laws related to road traffic such as those concerning vehicle-related taxation.

Organization related to vehicle registration

(a) Regulatory organizations for vehicle registration administrative system

- MPWT manages the vehicle registration administration system. Under MPWT, DLT in GDT operates the system. MPWT's structure is shown below.

Diagram of regulatory organizations for vehicle registration administration system

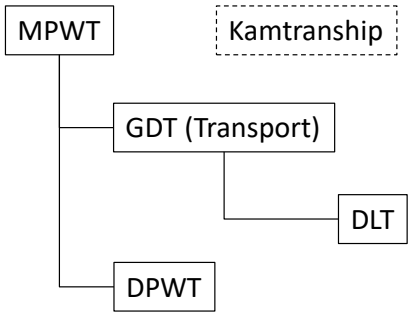


Table 5 Overview of regulatory organizations for vehicle registration administration system

No.	Organization name	Overview
1	MPWT (Ministry of Public Works and Transport)	Regulatory ministry for the vehicle registration administration system
2	GDLT (General Department of Land Transport)	A General Department of MPWT in charge of managing policy on land transport
3	DLT (Department of Land Transport)	Implementing policies on land transport such as vehicle registration, vehicle inspection, transport business permission, and research
4	DPWT (Department of Public Works and Transport)	Implementing vehicle registration of family vehicle and commercial vehicle in capital/provinces
5	Kamtranship	A private company which produces number plate and vehicle registration ID card under outsourcing contract with MPWT

(b) Other related organizations

- Other government organizations outside MPWT are also concerned with vehicle registration.
- The principal organizations are shown below;

Table 6 Overview of other related organizations

No.	Organization name	Overview
1	GDCE (General Department of Customs and Excise)	A General Department of MEF (Ministry of Economic and Finance) is in charge of regulating vehicle import tax of which certification is necessary for new vehicle registration
2	GDT (Taxation) (General	A General Department of MEF (Ministry of Economy and Finance) is in charge of regulating

	Department of Taxation)	road tax on vehicle ownership and stamp tax for ownership transfer
3	Traffic police	Traffic police of MOI (Ministry of Interior) is in charge of crackdown of illegal vehicles such as unregistered vehicles, uninspected vehicles and vehicles with unpaid tax
4	GID (General Department of ID)	GID of MOI (Ministry of Interior) is in charge of issuing national ID card to nations in Cambodia.

Registration procedures and fees

- Available registration procedures in GDLT or DPWT are shown below. These are extracted from the Prakas No.10 issued on 21st Jan 2016.

Table 7 Registration procedures and fees

No.	Description	Price (Riel)	Period	Valid Term
1	Vehicle or Tricycles Registration	40,000	10 days	Permanent
2	Motorcycle Trailer (Motorcycle) Registration	30,000	10 days	Permanent
3	Motorcycle and Tricycle Transfer information in the same capital or province	28,000	10 days	Permanent
4	Motorcycle or Tricycle Transfer information cross the different capital or province	40,000	10 days	Permanent
5	Motorcycle Trailer (Motorcycle) in the same capital or province	28,000	10 days	Permanent
6	Motorcycle Trailer (Motorcycle) cross the different capital or province	40,000	10 days	Permanent
7	Change or Duplicate or third copy of vehicle or Tricycle ID	31,000	10 days	Permanent
8	Change or Duplicate or third copy of vehicle or Tricycle or Motorcycle trailer number plate	31,000	10 days	Permanent
9	Medium Vehicle Registration	125,000	10 days	Permanent
10	Medium Vehicle Registration (AT)	125,000	10 days	1 Year
11	Heavy Vehicle Registration	155,000	10 days	Permanent
12	Heavy Vehicle Registration (AT)	155,000	10 days	1 Year
13	Motorcycle Trailer or Vehicle Trailer Registration	80,000	10 days	Permanent
14	Medium Vehicle Transfer information in the same capital or province	48,000	10 days	Permanent
15	Medium Vehicle Transfer information cross the different capital or province	101,000	10 days	Permanent
16	Heavy Vehicle Transfer information in the same capital or province	67,000	10 days	Permanent
17	Heavy Vehicle Transfer information cross the different capital or province	125,000	10 days	Permanent
18	Motorcycle Trailer or Vehicle Trailer Transfer information in the same capital or province	48,000	10 days	Permanent
19	Motorcycle Trailer or Vehicle Trailer Transfer information cross the different capital or province	74,000	10 days	Permanent
20	Change or Duplicate or third copy of medium vehicle or Tricycle ID	36,000	10 days	Permanent

21	Change or Duplicate or third copy of heavy vehicle or Motorcycle Tricycle ID	36,000	10 days	Permanent
22	Change or Duplicate or third copy of medium vehicle or Tricycle ID (one side number)	38,000	10 days	Permanent
23	Change or Duplicate or third copy of medium vehicle or Tricycle ID (one pairs number plate)	65,000	10 days	Permanent
24	Change or Duplicate or third copy of heavy vehicle or Motorcycle Tricycle ID (one side number plate)	52,000	10 days	Permanent
25	Change or Duplicate or third copy of heavy vehicle plate (a pairs number plate)	70,000	10 days	Permanent
26	Heavy Vehicle Number plate	180,000	10 days	Permanent
27	Change or Duplicate or third copy Heavy Vehicle Number plate (one side plate)	120,000	10day	Permanent

- On No.3,4 and 14-19 in this table, “Transfer information” has various patterns such as ownership transfer, change of owner’s address and change of vehicle’s engine or color.
- Furthermore, according to the Road Traffic Law and Sub-decree No.77, there are certain other procedures as shown below;

Table 8 Other registration procedures

No	Procedure	Overview
1	Delete registration	According to Article 20; “In case of exporting or disusing a vehicle, the owner shall take the number plate and the vehicle ID card attached with the confirmation letter about the reasons”

②Ascertainment of actual situation by means of local interviews and field investigation

- Basically, JICA experts interviewed Mr. Suon Vanhong, who is in charge of vehicle registration, to understand the problems in the operation of the vehicle registration system, and to grasp the state of legal and regulatory development such as further sub-decree correction in 2016.
- Also, we visited vehicle registration office in DPWT Kampong Cham office and Phnom Penh office and had interviews with the officers in order to understand how they utilize the vehicle registration information and what issues are for its utilization.
- As vehicle registration expert, we needed to interview with people in charge of IT system to understand the workflow of vehicle registration. Because vehicle registration administration system’s operation is supported by IT system.
- We visited the One Window Service Office, which is controlled by MOI, and interviewed about the current status of motorcycle registration, and also visited Toyota Cambodia in order to interview about issues of vehicle registration system from the perspective of local dealers.
- We visited JICA experts dispatched to GDT (Taxation) and GDCE of MoEF to greet and collect information on the current state of automobile-related taxes, etc.

Figure 4 DPWT Kampong Cham office

- The classification of registration desks are as follows;

Items	Result of the research
Classification of registration desks	・ The appropriate registration counter depends on region and type of vehicle number plate.

Table 9 Classification of registration desks

	Registration reception desk		4 wheels vehicle			2 wheels vehicle(Motor cycle)		
			Non Official	Official 1	Official 2	Non Official	Official 1	Official 2
Capital	GDT		-	○	-	-	○	-
	Other Ministries		-	-	○	-	-	○
	DPWT	Next to GDT	○	-	-	-	-	-
		Phnom penh	-	-	-	-	-	-
	One window service office		-	-	-	○	-	-
Province	DPWT		○	-	-	-	-	-
	One window service office		-	-	-	○	-	-

・ The differences between the number plates in “Official 1” and “Official 2” desks are shown below;

・ Official 1 :
  - ➢ Royal Palace’s vehicle, vehicle belongs to state ministries, state institutions, public enterprises and economic self-governing entities
  - ➢ Vehicle belongs to National Election Committee which is an independent institution
  - ➢ Vehicle belongs to an Embassy, United Nations Organization, international organization, and foreign Non-Government Organization

・ Official 2 :
  - ➢ Vehicle, used on the battlefield and for nation protection work, belongs to Ministry of National Defense （registered by Ministry of National Defense）
  - ➢ Vehicle, used for security work or social order, belongs to Ministry of Interior （registered by Ministry of Interior）

- Also , JICA experts had several meetings with related ministries and stakeholders.

Meeting with GDCE

Meeting with GDTax

Meeting with MoI (Police)

Meeting with MoI (ID)

- Though now MPWT provides vehicle registration information to related ministries irregularly by hard copy, USB memory or other means. Due to this inaccuracy, related ministries cannot act upon the information.

Table 10 Information Utilization Status

Ministries	Situation of the information utilization
With MOI (Traffic Police)[3]	・ Since vehicle registration information other than license plate information including inspection information is not provided by MPWT, uninspected vehicle check on the road can not be carried out efficiently. ・ Likewise, tracking of stolen vehicles and illegal vehicles can not be done efficiently.
With GDT (Tax)	・ It is impossible to determine the road taxable person based on the vehicle registration information, because the vehicle registration information provided by MPWT is incorrect including ownership information,
With GDCE	・ Currently, since MPWT does not share the vehicle registration information to GDCE, it can not be confirmed whether the vehicle is registered for the intended use as stated in import tax declaration. Amount of the tax depends on the intention of vehicle usage.

[3] Since the problem has not become obvious on the information sharing with MOI (ID), this report does not explicitly state the issue. The relation between MOI (ID) and MPWT is that MPWT is checking the national ID card information issued by MOI (ID) every time an application for registration is made. We will consider the necessity and possibility of cooperation with ID information possessed by MOI (ID) in the future when we confirm further challenges concerning MPWT information sharing and examine concrete improvement measures.

③ Extraction of issue items using investigation results and discussions with those involved locally

- JICA experts pointed out the issues to be solved in the 1st JCC held in Dec 2016.
- The details of the report is shown in " fundamental information of vehicle registration".
- However, as some part of vehicle registration legislation have been continuously changed, we extracted issues again and agreed with MPWT to figure out solution on the following items in the 2nd JCC held in June 2017.
  - Modification of the incorrect vehicle registration in the past
  - Prevention of the vehicle transfer during the loan period.
  - Ensure correct vehicle registration in future
  - Ensure information sharing with related ministries

④ Reporting to JCC and approval by JCC

- In the 1st JCC held in Dec 2016, JICA expert proposed the following items should be solved and got an approval.

Table 11 Issues specified in Dec 2016

Issues	Specific situation
Inaccuracy of registration	Sometimes, no registration number plates exist Sometimes, no application of ownership transfer/delete registration are submitted to MPWT
Insufficient collaboration	After registration, there is no assurance that registered vehicles receive periodical inspections Inadequate contribution to preventing non-payment of road tax and import tax Inadequate contribution to crackdown of illegal vehicles
Insufficient operation	Staff allocation to work load in each registration office
Cross-border issue	Commercial vehicle (truck, bus, etc.) coming from neighbor countries such as Thailand and Vietnam doesn't meet Cambodia's registration regulation such as handle and vehicle size

- However, the above mentioned issues were a little vague, therefore, JICA experts explained the revised issues based on the additional research and discussion with counterpart and got an approval in the 2nd JCC held in Jun 2017.

Table 12 revised issues specified in Jun 2017

Issues	Specific situation
Inaccurate data registered in the past	・ Current owner can not transfer vehicle ownership because information of vehicle and owner were not registered or updated correctly in the past. ・ Disposed vehicle information is still registered because delete registration wasn't carried out in the past.
No property protection for registered owner	・ Loan company cannot collect money sometimes because debtor resell vehicle before completion of a settlement of a debt and his/her repayment ability declines.

No reliable registration (New registration, transfer, delete registration)	・ Though more car dealers will do vehicle registration, they are not used to it and inaccurate information is registered. ・ Vehicle owner might not apply for ownership transfer and delete registration.
Insufficient Information sharing with related ministries	・ There is little linkage between registration and inspection within MPWT. ・ Though now MPWT provides vehicle registration information to related ministries irregularly, due to the inaccuracy, related ministries cannot activate the information.

1-3-2. Survey of systems and policies in neighboring countries

- In order to make the reference, JICA experts introduced Japanese case to MPWT in the 1st JCC held in Dec 2016.

Table 13 Japanese legislation/operation

• Items	• Japanese legislation/operation
New registration	・ The Road Transport Vehicle Law prescribes that a driver using an unlicensed vehicle on the road will be imposed a penalty of up to 6 months in prison and a fine of up to 0.3 million yen (about 3,000 dollars)
Delete registration	・ the Road Transport Vehicle Law prescribes that vehicle owners are supposed to have permanent delete registration procedures lodged within 15 days after the vehicle has been dismantled.
Delete registration	・ When exporting vehicles, the owner must apply for delete registration in advance. Then, MLIT will confirm the export of the vehicle concerned to customs and proceed delete registration. ・ Vehicle tax is also imposed on the vehicle owner registered at the Transport Branch Office once a year. Furthermore, should the owner fail to pay the vehicle tax, they will be charged an overdue fee, and in some cases vehicle impoundment will take place. ・ All application information of delete registration is managed by IT system which MLIT possessed.
Policy making	・ Statistics such as the number of registration applications in each registration office is utilized by MLIT to consider the registration administrative system operations, new policies and so on.
Information sharing with Vehicle inspection	・ Information concerning registration and inspection is centrally managed on a single database management system, so that information can be accessed by both registration and inspection departments.
Information sharing with related organization	・ In order to help tackle stolen and other illegal vehicles, police receives vehicle registration information and owner information owned by the Ministry of Land, Infrastructure, Transport and Tourism (hereinafter, “MLIT”) every day.
Penalty	・ In Japan, the Road Transport Vehicle Law prescribes that a driver using an unlicensed vehicle on the road will be imposed a penalty of up to 6 months in prison and a fine of up to 0.3 million yen (about 3,000 dollars).

Activity 1-4 Proposed the improved administration system for vehicle registration, including the control of cross-border vehicles

1-4-1. Formulation of proposals for reform

<Planned activity>

- Taking into account the results of Task 1-1 and Task 1-2, we put in order the projected proposals for ways to deal with the situation, specifically, by examining the merits and demerits of implementing in Cambodia the systems, approaches, etc., that are used in other countries, and the benefits, issues, etc., that would come from implementing in Cambodia rules similar to those used in those countries.

<Actual activity>

- In the 2nd JCC held in Jun 2017, we proposed the first version of the improvement plan as follows and got an approval.

Table 14 improvement plan

Issues	Improvement plan	Explanation of the improvement plan
Inaccurate data registered in the past	PLAN 1: Correction of inaccurate data registered in the past	・ Correct data registered in the past with considering requirements ・ Delete registration by MPWT's staff against vehicle whose information was not updated for many years
No property protection for registered owner	PLAN2: Property protection for registered owner	・ To set mortgage registration system ・ To set owner rights authentication and third-party ownership claim requirements, establishing registration information items to distinguish vehicle owner and user
No reliable registration (New registration, transfer, delete registration)	PLAN3: To heighten reliability of registration (New registration, transfer, delete registration)	・ To improve / make dealer's registration guidelines and check their operation under MPWT's management ・ Ownership transfer and delete registration by online application
Insufficient Information sharing with related ministries	PLAN4: Information sharing with related ministries	・ To make linkage between vehicle registration and inspection within MPWT. ・ To define necessary information items, and frequency and method of information sharing with related ministries

Others:GDLT is keeping original documents related to registration application for some decades. Considering the limited storage space and risk of loss, it might be effective to digitize them and keep them electronically.

(a) Whole Image of the Improvement Plan

- When each improvement measure is introduced, accuracy of vehicle registration information possessed by MPWT is guaranteed, and information items are fulfilled by the linkage with inspection information and distinction between owner and user. So it is possible to execute vehicle management administration with better quality. In addition, by providing vehicle registration information with improved accuracy to related ministries (MOI, MoEF), the ministries can carry out operations by utilizing it. As a result, this leads to efficiency improvement for the operations of related ministries.

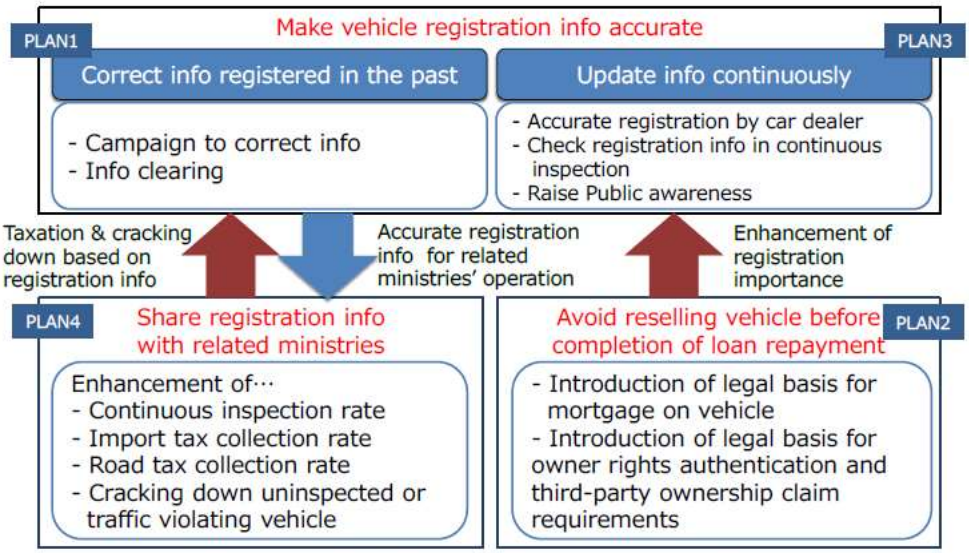


Figure 5 Whole image of the improvement plan

(b) Road Map

- JICA experts expected MPWT to implement improvement plans as follows at the time of the 3rd JCC held in Dec 2017. In order to produce the maximum effect, each improvement plan should be implemented in optimal order, taking care of dependencies among them. This is very important for MPWT to enhance vehicle management administration and improve citizen experience of service.

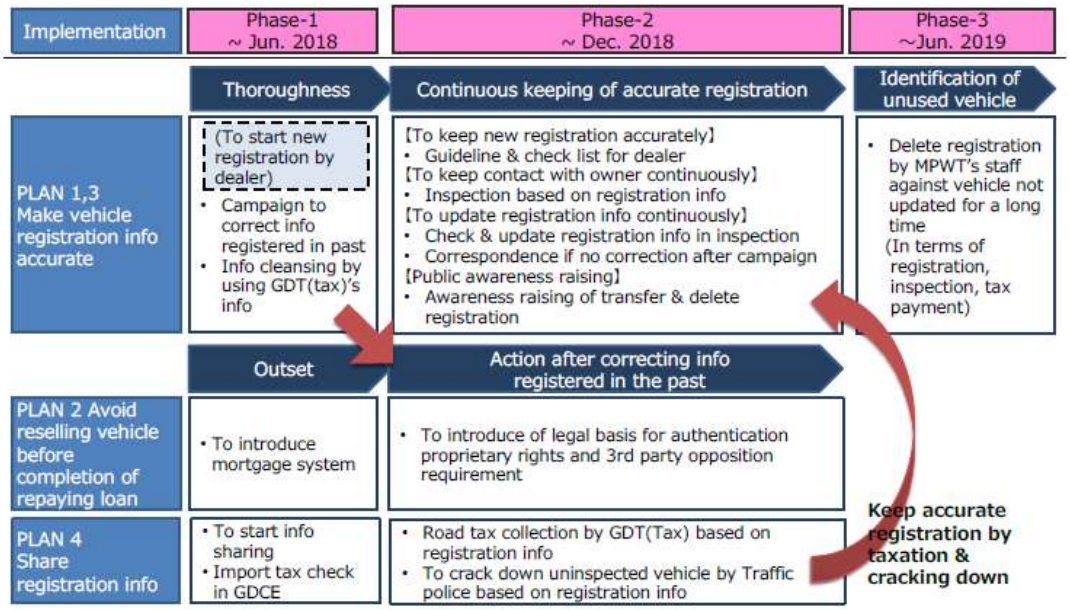


Figure 6 Roadmap of Activities on Vehicle Registration Administrative System

1-4-2. Modification of reform proposals based on discussions with those involved locally

< Planned activities>

- We revise the proposal after the 1st version of the proposal reflecting environment of Cambodia based on discussion and comment from MPWT, as Japanese idea is not always the best for Cambodia.

<Actual activities>

(a) Discussion for revision

- In order to refine the improvement plan outlined in the 2nd JCC held in Jun 2017, the following meetings were held to discuss issues and clarify ideas for improvement.

Table 15 Meetings to refine the improvement plan

Date	C/P	Contents of the meeting
Aug 22nd	GDLT Mr. Vanhong	Discussed the refinement of the improvement plan Made a detailed adjustment of information coordination
Aug 23rd	Toyota Cambodia	Got the information about new registration procedure in vehicle dealer
	Ly Hour	Got the information about the ownership protection of vehicle leasing company
Aug 24th	GDT(Tax)	Explained the detailed adjustment about information sharing
Aug 25th	New World	Got the information about the ownership protection of a mortgage company
	TOYOTA Tsusho Finance	Got the information about the ownership protection of a car leasing company
	IT/PR Mr. Sotheayuth	Coordinated the implementation of security diagnosis Interviewed on the system infrastructure and the external interface
Aug 28th	GDLT Mr. Vanhong	Discussed the refinement of improvement plan
Aug 29th	MOI (ID)	Explained the detailed adjustment about information cooperation
	Mr. Sotheayuth	Got the information about the actual operation situation.
Aug 31st	GDCE	Explained the detailed adjustment about information sharing
Sep 1st	MOI (Traffic Police)	Explained the detailed adjustment about information sharing

- In Oct 2017, JICA experts discussed the feasibility of further refinement and the improvement of the plan in Cambodia with the concerned parties.

Table 16 Meetings with related ministries

Date	C/P	Contents of the meeting
Oct 2	GDLT Mr. Vanhong	Meeting on the details of the improvement measures for vehicle registration-1
	JICA expert on GDT(tax)	Exchange of views on the possibility of setting incentives by tax policies pertaining to Cambodian tax policy and vehicle registration
Oct 4	GDLT Mr. Vanhong	Meeting on the details of the improvement measures for vehicle registration-2
Oct 9	BLUE TECHNOLOGY	Got the information about contents and processing of vehicle registration revision manual

(b) Revised version of the improvement plan

- Based on the discussion result, the content of the improvement plans was revised as described below.

Table 17 Revised version of the improvement plan

PLAN1-Correction of inaccurate data registered in the past		
Correct data registered in the past with considering requirements (The first version)	Issue	• Even if the vehicle owners would like to register their vehicles, they cannot register if they don't know the previous registered owner.
	Revised version of the improvement plan	• To postpone the application period of Prakas No.119 until a certain number of effects are achieved. • Prakas 119 determined the procedure of transfer of ownership of vehicle whose original owner not found, as a temporary measure (for four months). − Vehicle registration card (original); − Application for ownership transfer with thumbprint of the applicant of ownership transfer; − Original or copy of Khmer identification card with certification from the competent authority; − Receipt of payment of stamp duty with the exception of motorcycle, all kinds of tricycle and tractor − Contract of guarantee made before the official who is competent to transfer the ownership of vehicle.
	Effected result	• Even if there is no transfer agreement with the registered owner, the transfer registration procedure can be carried out to MPWT. • As a result, MPWT will be able to accurately manage the vehicle owner.
	Recommendation	• After making the decision of the extension of the application term of Prakas No.119, inform the plan to people and MPWT officers. • Inform the plan to the traffic police so that they can urge vehicle owners to apply the ownership transfer.
Delete registration by MPWT's staff against vehicle whose information was not updated for many years (First version)	Issue	• Many vehicle owners don't know the vehicle deregistration procedure and the obligation of deregistration.
	Revised version of the improvement plan	• Set the criteria of the deregistration by authority • If vehicle owners hasn't revised their vehicle information more than a period MPWT set, MPWT can delete the registration based on their authority. • Confirm the deregistration with notice to the registered owner before carrying out deregistration. • Notify people about the measures
	Effected result	• MPWT will be able to accurately manage the vehicle owners
	Recommendation:	• After setting the criteria for the deregistration by authority, it would be necessary to educate MPWT and DPWT officials and citizens about the deregistration.
PLAN2-Property protection for registered owner		
To set owner rights authentication	Issue	• If the lessee's driver causes a traffic accident, the liability of the accident is pursued to the registered car owner.
	Revised version of	• MPWT manages vehicle user information in addition to the owner

and third-party ownership claim requirements, establishing registration information items to distinguish vehicle owner and user (First version)	the improvement plan	information – Distinguish between owner and user, set the rights and obligations of each in Prakas – When applying for new registration, the applicant also offer user information – Both of owner information and user information are shown in the registration ID
	Effected result	• When a lessee driver causes a traffic accident, the victim can claim the damages for a traffic accident to the exact driver not the lessor, as the police can realize the driver.
	Recommendation	• MPWT requests Traffic Police whether driver is shown as the user on the registration ID, and if the user name is different from the driver, the driver will be imposed. • Also, registration department could collaborate with inspection department (inspection center) to check the driver who drive to the inspection center is the user on the registration ID.
To set mortgage registration system (First version)	Issue	• Vehicle owner before full repayment of the car loan can sell his/her car to other person, as there is no chance for buyer or MPWT to know if the owner has a car loan balance or not, and the loan company is facing difficulty of the loan collection.
	Improvement plan (same as the 1st version)	• Loan company registers loan related information (debtor name, target vehicle, loan repayment status) to MPWT • MPWT manages those information • When the target vehicle is applied for ownership transfer registration, MPWT refuses to accept the applications and notifies the loan company
	Expected result	• Car owner without full repayment of his/her car loan will be difficult to sell his/her car.
PLAN3-To heighten reliability of registration(New registration, transfer, delete registration)		
To improve / make dealer's registration guidelines and check their operation under MPWT's management (First version)	Issue	• Car dealer can register vehicle on behalf of the car owner, but as the online registration system is new, some of them might not understand the procedure of the vehicle registration well.
	Improvement plan (same as the 1st version)	• Create guideline and checklist for car dealer in order to make the procedure easier.
	Expected result	• If dealers can register all the vehicle they sell, unregistered vehicle will be decreased.
Ownership transfer and delete registration by online application	Issue	• Car owners don't register ownership transfer and deregister their cars and it causes the inaccuracy of the vehicle registration.
	Revised version of the improvement plan	• MPWT collaborate with GDT(tax), and GDT(tax) could impose road tax to the vehicle owner based on MPWT vehicle registration information. Registered owners will try to register their ownership transfer as they don't want to pay road tax. • By creating vehicle registration deposit system, people have to pay the deposit when they make new registration, and they can payback the deposit when their vehicle is deregistered.
	Expected result	• Car owners dislike to pay extra tax for their cars, so they will make ownership transfer registration or deregistration as soon as they sell or dispose their vehicle.

1-4-3. Reporting to task force and discussion by task force

< Planned activities>

- We organize materials for discussion in order that the above-mentioned results may be discussed at the taskforce.
- Prior to this, we ascertain the general dispositions of the individual ministries and agencies, and then make sure that the main players, such as JICA experts and the MPWT, are on the same page regarding how to proceed with the taskforce and regarding the materials for discussion.

<Actual activities>

- JICA experts proposed revised version of the improvement plan in the 3rd JCC held in Dec 2017.
- Revised improvement plan is approved except the vehicle registration deposit system.
- The reason why the deposit system is rejected is that the living standard in Cambodia isn't high. But in future, it might be possible to consider the implementation of the deposit system during the registration period.

Activity 1-5 Assist MPWT to adopt the administration system in the ministerial policy

<Planned activity>

- We take the results of discussion by the task force and organize them into materials sorting out the orientations of additional study and approaches in order to be able to obtain the final approval at the JCC.
- In the course of organizing the results, we hold another workshop with those involved, where the points of views are exchanged, so that the interested parties are involved in the process. In addition, we explain in advance the organized material to JICA experts, the MPWT, etc., and. If necessary, we also explain to the main attendees, etc., of the JCC.

<Actual activity>

Table 18 Implementation status of improvement plan

Category	Improvement plan	The implementation status
PLAN 1: Correction of inaccurate data registered in the past	To postpone the application period of Prakas No.119 until a certain number of effects are achieved.	• Prakas No.119 is valid at the present, and MPWT prepare for the announcement of the system to vehicle owners. • In order to make an announcement to the public on the procedure for finding no registered owner, MPWT needs to get an agreement with GDT (Tax). (Because it affects to the stamp tax/road tax)
	To set the criteria of the deregistration by authority – If the vehicle information hasn't been revised more than a term	• With regard to the draft criteria for selecting vehicles targeted for eradication pertaining to the ex parte system, the opinions of the parties concerned were compiled based on the cases in Japan, and the opinions were exchanged. • With regard to the establishment of the deregistration system, the GDLT reported that they considered the "manufacturing model" to be a good vehicle selection criterion. Progress on erasure-related efforts has been slower than other efforts, but

Category	Improvement plan	The implementation status
	MPWT set, MPWT can delete the registration based on their authority.	although progress has been made gradually, no criteria have been defined as of May 2019 to prioritize the promotion of new registrations and transfer registrations.
PLAN2: Property protection for registered owner	MPWT manages vehicle user information in addition to the owner information	• About PLan2, MPWT they themselves revised Sub Decree No. 77 about registration, and user information management and loan information management (Blocking Registration Number management) were supposed to be included there at first, but they aren't. They are planned to be separately described in other legislation. • From MPWT's GDLT Deputy Director and person in charge, regarding the approval process by MPWT in the Prakas No. 046 revised edition, the decision within the GDLT was completed in October 2018, but it was confirmed that the MPWT ministerial decision has not been completed as of May 2019, and the enforcement has been delayed. • The main updates of the Prakas are the following two points. 1) Clarified user registration management, 2) It was clarified that the user can not register for relocation (for target vehicles for loans, etc.) • At the same time, the design of the vehicle registration card will also be reviewed, and the user information will also be posted on the face of the card. (November 2018)
	To set mortgage registration system	• Although the proposal to introduce "Blocking Registration Number" was proposed as a method of the loan information management, it was said that it was postponed. Instead, we are planning to bring a letter issued by the loan provider (indicating permission to transfer ownership) and to allow transfer registration.
PLAN3: To heighten reliability of registration(New registration, transfer, delete registration)	To create guideline and checklist for officer and manual for car dealer in order to make the procedure easier.	• As for the new online dealer registration manual for dealers, the latest version of the manual was not available from MPWT, so at the stage of the 3rd JCC, we kept it in the future revision policy summary. (December 2017) • After that, we received the dealer's manual updated by Blue technology company, which shows the specific procedures for the new registration procedure, from the C/P person in charge, so we translated it from Khmer to English and examined improvement points. • As Blue Technology company finished developing the online vehicle registration system, GDLT decided to utilize the explanation materials for online vehicle registration application system.

Category	Improvement plan	The implementation status
PLAN4: Information sharing with related ministries	MPWT collaborate with GDT(tax), and GDT(tax) could impose road tax to the vehicle owner based on MPWT vehicle registration information. Registered owners will try to register their ownership transfer as they don't want to pay road tax.	• GDT(tax) – MPWT had a management level meeting with GDT(tax), and agreed on the collaboration. – At least, discussion between both ministries for the future improvement became to be held more than in the past. Critical point is on what condition GDT(Tax) can use vehicle registration information MPWT has. • GDCE – At the GDLT or DPWT registration window, import tax payment confirmation can be performed by entering the code provided by the customs on the system screen. – As a result, the registration counter has obtained an import tax payment certificate with paper, and the customs staff dispatched to the registration counter has not conducted operations to confirm either. (Dispatch of customs officers has also disappeared.) • Traffic Police and GID – First, since cooperation between GDCE and GDT (tax) is prioritized, there is no progress in Traffic Police and GID. – In addition, with regard to Traffic Police and GID, we intend to proceed with discussions after GDCE and GDT (tax) have been completed. – But after all, MPWT offered some accounts to traffic police so that they can browse several vehicle registration information through mobile equipment. • The following matters are concerned in connection with Traffic Police and GID. – the difficulty of changes affecting the server if interface to receive registration information data from IT system of MPWT is needed because the Traffic Police server is privately owned and operated by limited private budget. – some fee might be required because GID charges when providing ID information to other public organizations.

Other considerations

- In addition to the items included in the improvement plan, the following points are issues in MPWT.
  - ✧ It takes a long time to check the application approver in relation to improving the certainty of new registration
  - ✧ Some approvers have a person who tries to get a bribe from the applicant who wants to delay the approval on purpose and proceed with the process earlier
- As measures to deal with these issues, a monitoring team for DPWT is considered to be set up at GDLT and report the monitoring results to the high level of MPWT, and GDLT will perform confirmation / approval on behalf of DPWT, etc.

Activity 1-6. Prepare the guideline for vehicle registration

<Planned Activity>

- In order to improve the procedure of MPWT, JICA experts planned to create guidelines which reflects improvement plan and define common procedure and criteria.

<Actual Activity>

Creation of the guideline

- JICA experts submitted the vehicle registration guideline developed in reference to the vehicle registration manual used in Japan and it was approved in the third JCC.
- The guideline includes the improvement plan and its table of contents is as follows.

Table 19 Table of contents of guideline

1. Purpose of this guideline
2. Importance of vehicle registration
3. Related Parties for Vehicle Registration
4. BASIC MATTERS CONCERNING VEHICLE REGISTRATION
   (1) Vehicle owner and user
   (2) Basic rules on license plate
   (3) Basic rules on registration ID card
5. The Connection of Vehicle Registration System with Vehicle Inspection System
6. Registration officer
7. Important points about vehicle registration administration system
8. Necessary situation to carry out vehicle registration procedures
9. Vehicle registration procedures
10. Types of registration procedures
    (1) New registration
    (2) Transfer registration
    (3) Delete registration
11. Fees and Related Tax Payment on Vehicle Registration
12. Utilization of vehicle registration information
    (1) Overview
    (2) Utilization of vehicle registration information database in MPWT
    (3) Provision to related ministries/institutions

- But it needs to be modified considering the situation of activities 1-5.
- We heard that MPWT was modifying the guidelines by themselves, so we were considering to support for

advice etc. However, it turned out that it was not include the procedure method in practice, so we are in the process of discussing with the MPWT side again about the correction points by using the consultant team proposal guidelines.

Creation of checklist

- JICA experts submitted the vehicle registration checklist in the third JCC and it was approved.
- The composition of the checklist is as follows.

Table 20 composition of the checklist

1. Checklist for new registration
   (1)On application phase through online system
   (2)On issuing phase
2. Checklist for ownership transfer registration
   (1)On application phase
   (2) On issuing phase
3. Checklist for delete registration
   (1)On application phase
   (2)On issuing phase
4. Checklist for information sharing
   (1)Providing information to departments within MPWT
   (2)Providing information to related ministries

Revision of the guideline

- We revised the registration operation guidelines presented in the 3rd JCC. (Example: Detailing of staff processing procedures for various registration procedures (new registration, transfer registration, delete registration), reinforcement of the description on the importance of registration system)
- Regarding the revised guidelines, we receives comments on it form MPWT Deputy Director General, Phnom Penh DPWT's registration department chief who frequently receives registration applications from the public, and the registration department chief. And we made further modifications, and GDLT Deputy Director General (in charge of registration) did as well.
- In addition, as information necessary to advance the MPWT decision process, we conducted a case study and report on Japan regarding point alignment and reporting of guidelines and user information management. (June 2018).

Activity 1-7. Monitor the vehicle registration executed by the MPWT

1-7-1. Holding seminars for MPWT staff in order to make the guidelines take root.

＜Planned activities＞

- After the guidelines have been formulated, we hold multiple seminars in Cambodia for persons in charge and managers at the MPWT in order that the guidelines be applied reliably. At the seminars, we distribute questionnaires so as to collect issues from the local level regarding the application of the guidelines. Based on the results of the questionnaires, we examine potential improvements to the guidelines as well as how seminars and other training should best be carried out.

＜Actual activities＞

- JICA experts and GDLT organized a number of seminars to raise the awareness and understanding of citizens, dealers and DPWT officers on the importance and procedures of vehicle registration.
- Although many of them were attended by JICA experts, the GDLT actively held seminars even without JICA experts.

(a) Discussion meeting with vehicle dealers on Mar21, 2018

- A meeting for discussing vehicle registration operation was held on March 21, 2018 in GDLT, presided over by H.E. Chhoun Voun, Director General of GDLT, regsitration staffs of GDLT and local vehicle dealers participated in this meeting, and the total number of participants reached about 100. Issues and comments on vehicle registration online system were raised by local vehicle dealers.

Table 21 Participants of the Discussion Meeting

Number of registered dealers			
Dealers of 4-wheel vehicles	Dealers of motorcycles	Dealers of 4-wheel vehicles+ Motor bicycles	Total
56	15	156	227

(b) Seminar in Siem Reap on Sep13, 2018

- A seminar on vehicle registration and operation guidelines was held on **September 13, 2018** in **Siem Reap**. Registration staff from all DPWTs in Cambodia participated, and together with GDLT staff and JICA officials, the total number of participants reached about 80. In addition, active questions and comments from DPWT staff and sincere responses from the GDLT were carried out, which made it a highly meaningful forum as a place for direct communication among staff involved in vehicle registration administration. After the seminar, some DPWT staff members commented that they would like to conduct a similar seminar several times a year. Concerning that, H.E. Chhoun Voun, Director General of GDLT and Mr. Suon Vanhong, Deputy Director General of GDLT shown positive stance to hold such events.

(c) Small seminar in Kampong Cham held on Sep 19,2018

- A small seminar was held on **September 19, 2018** in **Kampong Cham** for DPWT officials in the province. While following the large-scale seminar in Siem Reap last week, we also explained the importance of handling vehicle registration and the points in handling procedures based on the guidelines for staff who have not participated in the seminar. The DPWT staff members voiced the expectation that the guidelines will be issued nationwide, and commented that there are still problems in the operation of transfer registration and deletion registration as of now when the guidelines have not been introduced.

(d) Seminar in Kep held on Jan 4, 2019

- **On January 4, 2019**, **Kep** held a seminar for registration staff on vehicle registration system operation guidelines. The seminar is about the same size as the seminar in Siem Reap held in September, and approximately 60 people participated, including participants from DPWT and GDLT across the country. At the time of holding, the consultant team provided materials etc. in advance, but all the proceedings on the day were conducted by GDLT. They use the tentative guideline to explain to all participants.


(e) Seminar in Mondulkiri held on Feb 21, 2019

- **On February 21, 2019**, in cooperation with GDLT, a seminar for registration staff on vehicle registration system operation guidelines was held in **Mondulkiri**, and about 60 people participated including participants from DPWT and GDLT across the country. This seminar was proceeded by GDLT passionately and participants asked them actively.


- As of May 2019, GDLT are considering to hold more 5 times seminars. To realize that, they are adjusting the budget.

1-7-2. Implementation of monitoring. (For more detail, see "Monitoring.")

＜Planned activities＞

- In order to verify how well the guidelines have taken root and to what extent the expected benefits have materialized, we obtain monitoring indicators in collaboration with those who are in charge of monitoring.

- If the benefits originally projected have not materialized, we search for the cause by means of local interviews or direct observation of how operations are being implemented, and examine measures to improve the situation.

＜Actual activities＞

- In order that MPWT introduce the vehicle registration guideline presented by JICA experts, it is necessary to modify or set Prakas (Department Ordinance) which prescribe about the guideline and to get an approval from the MPWT senior minister.
- The guidelines were translated by the local assistant into Khmer.
- Mr. Suon Vanhong, Deputy Director General commented that it was better to issue the guidelines nationwide after the approval of Prakas No. 046 revised edition that defines the registration system, so the guidelines will be revised by GDLT as necessary.
- H.E. Chhoun Voun, Director General approved the revised Prakas and submitted it to MPWT headquarter, aiming to get signature from the MPWT senior minister.
- As a result of guideline seminar to MPWT (GDLT/DPWT) staffs on Sep. 2018, it was necessary to revise the tentative vehicle registration guideline more. At this seminar, the tentative guideline was provided to all province and capital MPWT staffs.
- While the GDLT has been pushing forward to get the sign of the MPWT senior minister to the revised Prakas since Oct. in 2018, the Japanese side has also informed that early approval was necessary again and again.
- As a result of meeting with JICA experts, H.E. Chhoun Voun, Director General, Mr. Suon Vanhong, Deputy Director General and Mr. Cheng Samnang, Deputy Director, based on the current operation of the GDLT side guidelines, it was necessary to make some corrections on the tentative vehicle registration guideline more.
- On January 2019, GDLT held guideline seminar for all province and capital MPWT staffs. GDLT was so active to hold this and could explain the contents of the guideline without the consultant team support,
- As of February 2019, Prakas No. 46 was still not signed. The reason was that revising Sub-decree No. 077 pertaining to number plates and etc. suddenly became the high priority of the senior minister over the revised Prakas. In general, regulations within Prakas are made on the basis of Sub-decree. That's why, H.E. Chhoun Voun, Director General, Mr. Suon Vanhong, Deputy Director General explained to us that more revision on Prakas No.046 would be needed by the result of the Sub-decree approval.
- As a result of guideline seminar to MPWT (GDLT/DPWT) staffs on Feb. 2019, it was necessary to revise the tentative vehicle registration guideline more. At this seminar, the tentative guideline was provided to all province and capital MPWT staffs.
- As of May 2019, revised Sub-decree No. 077 seems close to approval from the senior minister. According to Mr. Suon Vanhong, Deputy Director General, after the end of the Sub-decree approval, we can restart approval process of revised Prakas No. 046.
- Typically, in order to explain to officers how to operate Prakas, the instruction is created and issued under approval of H.E. Chhoun Voun, Director General. He told us that the instruction is the similar to guideline.

That's why, vehicle registration guideline will be made as Instruction.

- The consultant team told GDLT that the situation was serious because this project would be finished on August 2019 and proposed to strengthen cooperation to do below before the last JCC meeting on Jun. 2019;
    - ✧ Get approval from MPWT Senior Minister on the Prakas No. 046
    - ✧ Complete revision of vehicle registration guideline and get approval from Director General of GDLT
- On June 4th, 2019, revised Sub-decree No. 077 was approved by MPWT Senior Minister. Therefore, GDLT restarted approval process of Prakas No. 046. However, based on the approved Sub-decree, new revision should become to be reflected to the Prakas No. 046. After this revision comes to end, vehicle registration operation guideline will be in process of approval.

Table 22 The implementation status of Improvement plan

[As of May 2019]

Category	Improvement plan	The implementation status
PLAN1	To postpone the application period of Prakas No.119 until a certain number of effects are achieved.	• Prakas No.119 is now in force.**(Completed)** • GDLT is making Joint Declaration with GDT(tax) regarding ownership transfer and related tax. Special rules in Prakas No. 119 for people who wants to do ownership transfer whithout previous owner 's registration ID card will be sophisticated and included in the Joint Prakas. ➢ GDLT is also planning to allow citizens to do ownership transfer application in commercial space such as shopping mall. Because easy access to the application from citizens is important for proceeding ownership transfer.
	To set the criteria of the deregistration by authority	• After new registration and ownership transfer registration are improved, it will be considered.**(Future Plan)** ➢ GDLT regard this as future challenge because issues relating ownership transfer are more serious to citizens and should be solved preferentially. ➢ GDLT is thinking that it is necessary to make Joint Declaration with GDT(Tax) regarding deregistration and related tax as well as IT system connection between both ministries.
PLAN2	MPWT manages vehicle user information in addition to the owner information	• This provision has already been added newly to Prakas No. 046 regulating vehicle registration operation.**(will complete in near future)** • As of May 2019, Prakas No.046 has already been submitted to MPWT from GDLT, and waiting for the examination of law committee and cabinet, and signature of Senior Minister.
	To set mortgage registration system	• After owner and user registration are implemented, it will be considered.**(Future Plan)**
PLAN3	To create guideline and checklist for officer and manual for car dealer in order to make the procedure easier.	• The vehicle registration and checklist have already proposed and get an approval in the JCC. • It will be official after Prakas No.046 is approved by MPWT Senior Minister and GDLT decide to utilize the guideline adding some modification. **(will complete in near future)**

		➢ The tentative vehicle registration operation guideline for GDLT and all province DPWT staffs has been updated gradually and provided to all province and capital MPWT staffs. By using it, GDLT has implemented training session for the staffs. After some revision, we have to get approval on this from the MPWT senior minister as well as on the related Prakas. (Prakas No. 046) This will be updated and continue to be used by GDLT in the future. ➢ Online vehicle registration manual was made for car dealers by GDLT and Kamtranship. By using it, they have implemented training session for car dealers if required. This manual has to be updated by GDLT continuously. ➢ The checklists on vehicle registration procedures are being used for monitoring the operation in GDLT and all province DPWT. Those will be updated and continue to be used by GDLT in the future. On the other hand, the checklist on information sharing for GDLT officers are not used now because information sharing between GDLT and related ministries through IT system is still under discussion. However, GDLT is planning that they will update and use it after information sharing realization.
PLAN4	MPWT collaborate with GDT(tax), and GDT(tax) could impose road tax to the vehicle owner based on MPWT vehicle registration information. Registered owners will try to register their ownership transfer as they don't want to pay road tax.	• **GDCE and Traffic police are able to get/provide some necessary information from/to GDLT. But GDT(Tax) and GID haven't achieved yet. (Partly Completed)** ➢ GDT(tax) cannot agree to GDLT's proposal on information sharing even though GDLT approach actively and hold joint meeting. That's because road tax collection based on vehicle registration information provided from GDLT is big change of the present tax system and should be examine seriously. However, at least discussion between both ministries for the future improvement became to be held more than in the past. ➢ From May 2018, GDCE became to provide vehicle import information including import tax payment to GDLT electrically. Thanks to this, when MPWT (GDLT and DPWT) staffs receive new vehicle registration application, they can reject the application with illegal import. Moreover, applicants don't need to get import tax receipt from GDCE before new vehicle registration application. ➢ From 2018, Traffic Police became to view vehicle registration data base directly by using their mobile equipment. Because GDLT provided access account to Traffic Police. ➢ Linkage between GDLT and GID in MOI is also preferable in the future. Because national ID is necessary for vehicle registration procedures. However, GDLT and GID are still discussing.

- As for remaining improvement plan, GDLT will continuously tackle the improvement of vehicle registration administration as shown in Table 19.

Table 23 implementation Plan

CATEGOLY	IMPROVEMENT CONTENTS	2019						2020	2021	2022
		7	8	9	10	11	12			
JICA event			★ End of MVRI							★ Monitoring & Evaluation
PLAN1	Ownership transfer campaign	Joint Declaration making and approval						Implementation		
	Delete registration by MPWT staff							Design, Prakas update, and implementation		
PLAN2	User info management	Prakas approval						Implementation		
	Loan info management									
PLAN3	Accuracy enhancement of new registration	Prakas approval						Implementation		
	Accuracy enhancement of ownership transfer									
	Accuracy enhancement of delete registration							Design, Prakas update, and implementation		
GUIDELINE	Guideline, checklist	Prakas approval						Utilization, update and training		
	Dealer manual									
Information sharing with related ministry		Implementation with GDCE								
		Discussion with GDT(Tax)						Design and Implementation with GDT(Tax)		
		Implementation with Traffic police								

(2) Output 2. The administration system for vehicle inspection is established

Activity 2-1. Assess the current status of the vehicle inspection system in Cambodia, including six (6) vehicle inspection centers

2-1-1. Collection of relevant information and fact-finding on vehicle inspection system in Cambodia

＜Planned activities＞

- The vehicle inspection system and its implementation status in Cambodia review through an analysis of existing reports and relevant laws and regulations in Cambodia, such as the new Road Traffic Law and ADB reports referring to the vehicle inspection system in Japan. Additionally, relevant information is collected in cooperation with the long-term experts.
- Also, JICA experts visit 6 inspection centers and have several interviews and discussions with C/P to understand the situation and extract issues.
- Relevant issues are identified and to be get an approval in the 1st JCC.

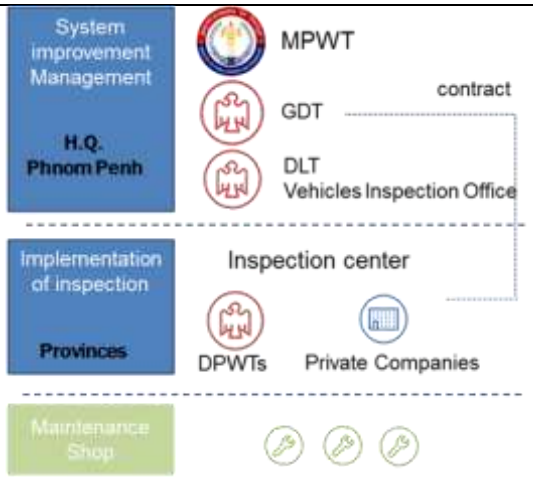
＜Actual activities＞

(a) Fundamental Research

- At first, we organized the contents of Prakas related to vehicle inspection in Cambodia (inspection items and standards, management of vehicle inspection sites, contracts with private vehicle inspection companies, etc.) and grasped the current situation of Cambodian vehicle inspection system. Also, we researched some statistics and organizational structure.

- The result of the fundamental research is as follows. (in order to get some of them, not only publicly available information but also interviews are needed.)

Item	Explanation
Organizations related to the vehicle inspection	• MPWT/GDT, the responsible body, plays key roles such as improvement of regulations/administrative system and overall management. Inspection services are provided by DPWTs and authorized private companies. • MPWT has made contracts with two private companies and plans to increase the number in the future.



Inspection-related organizational chart

MPWT/GDT/DLT
Improvement of regulation/system, authorization/permission, overall management, etc.
DPWT
Management of inspection center, implementation of inspection (check-up of reception, inspection, and validity of the results), reporting to Chief of inspection office
Private vehicle inspection centers
Implementation of inspection, reporting to DPWT
Auto maintenance shop
Maintenance & repair

The major vehicle inspection system

- Prakases in the table below cover major aspects of the inspection system such as procedures, inspection items and standards, some formats such as test report. Contracts with private companies also constitute the system, stipulating procedures, the roles of the public and private, etc.

Table 24 Legal and regulatory system on the vehicle inspection

	Name	Contents
1	Prakas on Technical Standard and Vehicle Technical Inspection	Inspection items, standards, Criteria, etc. are put in the provisions of this Prakas. Formats such as a certificate and a result report are attached.
2	Prakas on Standard of Vehicle Technical Inspection	Inspection items, criteria, procedures, etc. are put in the provisions of this Prakas.
3	Prakas on Management of Vehicle Technical Inspection Center	Requirements for inspection equipment / inspector, how to handle certificates and revenues from the fees, reporting obligation, and roles of the DTL etc. are included in this Prakas.
4	Announcement on Management of Vehicle Inspection Station	The same as above.

Notes) The contents of Prakas 1 and 2 are quite similar. However, there are some minor contradictions in the parts of inspection items and standards.

- In addition to the Prakases above, other items are also specified in contracts between MPWT and private companies. The details of the contracts are not described here since they are contracts, however the briefing is as follows.

Table 25 Overview of contracts with private companies

Items	Overview
Roles of MPWT	Authorization of vehicle inspection businesses for private companies, set-up of places for vehicle inspection, promotion for vehicle owners who have to get their vehicles serviced, etc.
Roles of private company	Testing equipment maintenance etc.
Procedures on the inspection	Procedures on the pass and fail, rules of fee collection, profit portion of the private company, etc.
Administrative Guidance / instructions	From warnings to suspension of business

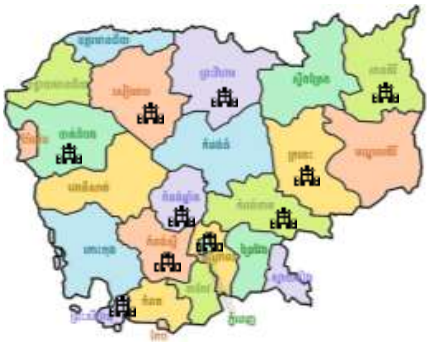
- The two Prakases, "Prakas on Technical Standard and Vehicle Technical Inspection" and "Prakas on Standard of Vehicle Technical Inspection", which describe inspection procedures and items have many parts in common, but some discrepancies or inconsistencies in them at the same time. "Prakas on Management of Vehicle Technical Inspection Center" and "Announcement on Management of Vehicle Technical Inspection Center", their contents are basically the same and the difference is not clear. In addition, it seems that some items in contracts with private companies should be stipulated in regulations rather than in individual contracts because those items set common rules in the inspection system. These things indicate a necessity of the review of the regulation as a whole as well as the reviews of each regulation.

Preparation on new regulations

- According to MPWT/GDT, there are some rules and regulations that MPWT/GDT are working on (refer to the table below).

Table 26 Rules and regulations that plan to be prepared

	Name	Overview	Step
1	Technical Standard and Vehicle Technical Inspection	Revision version of the prakas 1 in the Table1. More descriptions on roles are to be added.	Drafted
2	Circular regarding inspection testing equipment' requirements	Requirements for the testing equipment	Conceptual stage
3	Circular concerning requirement for inspector	Requirements for inspectors	Conceptual stage
4	Circular concerning calibration **of the** testing equipment **/ instruments**	Rules on the calibration **of** testing equipment	Conceptual stage
5	Vehicle inspection testing equipment **calibration committee**	Management of calibration by a private company	Conceptual stage

Operation of inspection center	• Each vehicle inspection center is managed and operated by MPWT and an authorized private company and there is no center operated solely by the governmental side. As of Nov, 2016, there are 10 inspection centers in 9 municipality/provinces. Two more centers are expected to be available soon. The regular business hour is 7:30-11:30 and 13:00-17:00 on weekdays (closed on weekends and public holidays) • MPWT/GDT plans to provide inspection services with mobile inspection units in provinces where there is no inspection center.  Municipality/Provinces where inspection center in operation in 2016 • Municipality/Provinces where inspection center in operation in 2016. – Phnom Penh （2 centers） – Preah Sihanouk – Siem Reap – Battambang – Kampong Cham – Kratie – Preah Vihear – Kampong Speu – Kampong Chhnang • When we started this project, Municipality/Provinces where inspection center were planned to be in operation. – Ratanakiri – Phnom Penh (The 3rd center) • After this project started, as 4 centers have started to their operation, there are 14 inspection centers throughout Cambodia and 5 of them located in Phnom Penh at the present.  Municipality/Provinces where inspection center in operation in 2019 • 3 centers in Phnom Penh and 1 center in Ratanakiri were added. – Phnom Penh （5 centers）

- Preah Sihanouk
- Siem Reap
- Battambang
- Kampong Cham
- Kratie
- Preah Vihear
- Kampong Speu
- Kampong Chhnang
- Ratanakiri

- Also, 3 mobile inspection units for the provinces that have no inspection center are now in operation.

- The basic information of some inspection centers is as shown in the table below.

Table 27 The scale of the 4 inspection centers

	Phnom Penh		Preah Sihanouk	Kampong Cham
	in GDT	Chamkar Dong		
Year of Establishment	1998	2015	2013	2008
The number of staff (1*)	22	13	5	6
The number of inspectors (1*)	12-15	8	3	4
The number of lanes	3	2	1	1

Notes 1*) the number of staff changes depending on the time of a year.

- Over the past six years (2010-2015), the number of vehicles inspected is increasing at an annual average rate of 27%. Around 70% were inspected at centers in Phnom Penh in 2015.

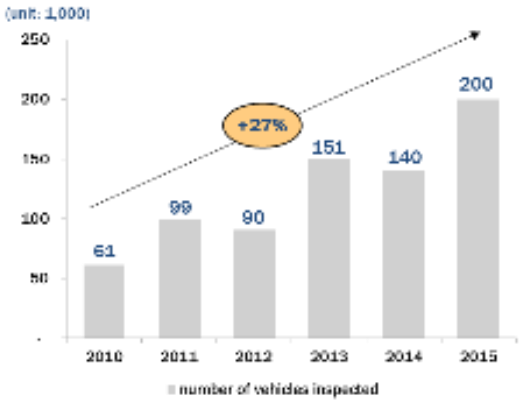


Table 28 The number of vehicles inspected (2010-2015)

Year	2010	2011	2012	2013	2014	2015
The number of vehicles inspected	61,369	99,176	90,481	150,798	140,175	200,315

Table 29 The numbers and proportion of vehicles inspected by Province in 2015

Province	The number of vehicles inspected	%
Phnom Penh	145,571	72.7%
Battambang	16,983	8.5%
Kampong Cham	11,450	5.7%
Siem Reap	19,179	9.6%
Preah Sihanouk	7,070	3.5%
Others	45	0.0%
Total	200,298	100%

(b) Approach of the Research

- In October 2016, we interviewed Mr. Meng Chhun Heng, who is in charge of vehicle inspection of GDT, about the outline of the vehicle inspection system in Cambodia, the issues, and the current efforts in formulating the system. In addition, we collected additional information on current and developing prakas, etc. and specifications of vehicle inspection and inspection equipment.
- We visited the MPWT / GDT, DPWT, and the vehicle inspection centers and conducted interviews to confirm the operation status of the Cambodian inspection system on the spot.
- Interviews with departments in charge of GDT / DPWT vehicle inspection (two in Phnom Penh, Sihanoukville and Kampong Cham) were conducted to grasp the current status of the management system and role sharing between the government and the private sector in vehicle inspection.
- We conducted interviews with CMVIC (private company who operates inspection centers) inspectors at vehicle inspection centers and conducted on-site surveys (2 places in Phnom Penh, Sihanoukville, Kompong Cham) to

grasp the current situation regarding management within CMVIC, vehicle inspection implementation status, maintenance of equipment, etc.

- We visited the Siem Reap and Battambang vehicle inspection sites in January 2017, and the Kampong Chhnang vehicle inspection site in October 2017, and had an interview with the executive officer of CMVIC. The findings of these visit and interview are utilized as a reference for creating guidelines (such as a manual for visual inspection).

Interview at DPWT《**Sihanoukville** DPWT》

Vehicle moving to speed test and CMVIC Chief Inspector《Kampong Cham inspection center》

Vehicle owner filling out vehicle inspection application and DPWT staff assisting it 《**Sihanoukville inspection center**》

DPWT staffs creating files to use at the inspection site 《**Sihanoukville inspection center**》

CMVIC inspector preparing an agreement document to be exchanged with vehicle owners who have failed inspection

Observation of undercarriage inspection by CMVIC《GDT **inspection center**》

《**Sihanoukville inspection center**》

CMVIC staff members undercarriage inspection

Vehicle inspection Lane

- In regard with vehicle inspection equipment, having several interviews with the equipment manager of CMVIC, the company that operates the vehicle inspection, we grasped the implementation and management status regarding maintenance, calibration, etc. of the vehicle inspection equipment.
- In June 2017, we had an interview with a technician of a commercial vehicle inspection company (CMVIC) and asked them to explain how to calibrate the equipment and to show a demonstration of the actual calibration method for some equipment (weight scale).

Description of the calibration equipment for side slips by a technician contracted with CMVIC

Demonstration of weighing scale calibration by a technician contracted with CMVIC

Street inspection in Siem Reap (illegal remodeling)

Siem Reap inspection center

Inspector in Siem Reap inspection center (left)

A staff printing out inspection report in Battambang inspection center

DPWT staff holding desk in Battambang vehicle inspection center

Vehicle from which the illegal remodeling indicated part was deleted (Pipe next to the license plate)

Manual of calibration tool at CMVIC

Material for calibration at CMVIC

(c) Findings regarding Management of the operation

- Until November 2017, we visited all inspection centers in country and conducted on-site surveys with a staff of vehicle inspection company “CMVIC” and “HK” to grasp the current situation including how to inspect the vehicle.

DPWT in Kampong Cham

DPWT in Kampong Cham

DPWT in Sihanoukville

DPWT in Sihanoukville

DPWT in Sihanoukville

DPWT in Sihanoukville

Mobile inspection in Chamkar Dong

Mobile inspection in Chamkar Dong

Table 30 findings from the field visit

item	Findings from the field visit etc.
Requirements for inspectors	• Although there is a brief description on inspectors in the contract with private companies, it does not regulate how a private company hires an inspector. MPWT/GDT is questioning the quality of inspectors and plans to set up more proper requirements. • CMVIC, an authorized private company, has an in-house training system such as original manual and a six-month on-the-job training, although the company seems not to have selection criteria for new inspector such as relevant academic background and work experience as mechanic. Contrary to the view of MPWT/GDT and the observations during this research, CMVIC seems not to be dissatisfied with the quality of their inspectors. Management in CMVIC Academic and professional background appears not necessarily to be required. In fact, the backgrounds of CMVIC's inspectors are diverse and there seems to be no particular trend in this regard. Many of them became an inspector through an introduction of an acquaintance or a friend. A manual was prepared for new staff training. The manual is comprised of parts that are extractions of "Prakas on Technical Standard and Vehicle Technical Inspection" and other relevant rules and regulations and an original Q&A section. The Q&A section is comprised of the purpose of the inspection system, inspection criteria, the significance and explanations of the criteria and the inspection items and others. Once entering the company as an inspector, a six-month on-the-job training program is given at the inspection center in GDT. After that, basically no training is provided. Instead, CMVIC inspectors ask senior inspectors questions when needed. No CMVIC inspector seems to think that there is any issue in their abilities of inspection and the company does not take their inspectors' capacities as a business challenge. There is a system in which inspectors are relocated flexibly to a center where necessary.

Requirements for Equipment	• MPWT/GDT is concerned about the quality of the inspection with testing equipment at the centers, with the understanding that equipment is made-in-China products and not calibrated. On the other hand, the current regulations mention only the names of necessary equipment but do not stipulate the specifications required for equipment. Without specification requirements, it is impossible for MPWT/GDT to judge whether equipment is suitable for the inspection when the company purchase equipment. • As for equipment issues, MPWT/GDT plans to set up a committee for checking if the equipment is properly calibrated or not. On the other hand, it has to be kept in mind that there seems to be no calibration service provider in Cambodia except one for weight scale. • GDT/DPWT might give an instruction for repair to the private company once they notice any serious equipment breakdown. However, such instruction is given more on an ad hoc basis. It is thought that some DPWTs, which do not visit an inspection center regularly for monitoring, fail to notice such problems immediately. Management in CMVIC In case of machine troubles, a Chinese engineer of CMVIC visits the inspection center to repair the testing equipment after the center reported the trouble to the headquarters of CMVIC. Small troubles such as failure of electrical system and parts exchange might be fixed by an inspector at each center if possible. Typical causes of troubles are bite into electrical wires by mice, lightening, etc. • Basically CMVIC keeps purchasing the same type of testing equipment produced by the same manufacturer. • MPWT is involved in the process of the initial purchase by CMVIC. After that, however, CMVIC purchases equipment without approval from government since the company keeps purchasing the same. • Regarding weight scale, a third party, National Metrology Center, calibrate the equipment. After that, including other equipment, CMVIC maintains and calibrates themselves. • According to CMVIC, the standard value of the testing equipment was set by the manufacturer at each center in accordance with the criteria in Cambodia when the manufacturer installed the testing equipment. CMVIC can adjust the value if necessary but have no experience in changing values because no criteria change happened so far. The testing equipment maintenance and calibration are done at a certain level but no data entry is done (They said that it was recorded in the past). Basically CMVIC do not do regular maintenance and take necessary measures only when they

Management of the inspection system

- Inspection centers report to DPWTs, and DPWTs report to MPWT/GDT periodically. The items in reporting, however, are limited to a minimum: the number of inspected vehicles by type.

Management system on vehicle inspection-related organizations

- DPWTs at Kampong Cham and headquarters provide the centers with some suggestions/instructions. However, some DPWTs said that they had no right to speak to a center and even right to get inside the center in the first place.
- According to DPWTs, administrative instructions are not given except instructions on machine repair.
- The overview of the regular report is as shown in the table below.

Overview and frequency of the report

Reporting line	Inspection center → GDT/DPWT	DPWT → GDT
overview	The number of inspected vehicles by type (※) , the number of pass and fail at a center, no report about revenues that was handled by DPWT	The number of inspected vehicles by type (※) , revenues (No distinction between pass and fail)
Frequency	Every day, every month	Every month, twice a month (Kampong Cham)

(※) Definitions on the number of inspected vehicles themselves might vary. Examples are;
[The number of inspections inspected] － [the number of fails due to illegal modification]
[The number of inspections inspected, including fails regardless of the reasons]

Management in CMVIC

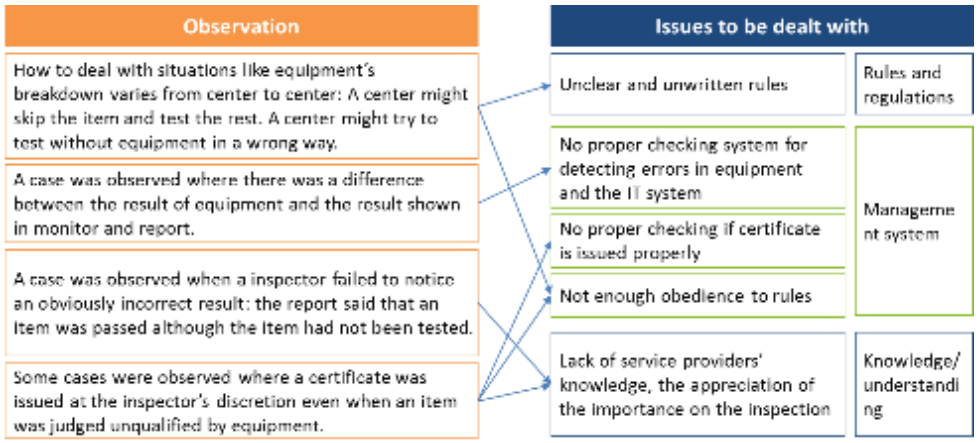
- Each inspection center is not financially independent from the headquarters, which manages the entire business matters.
- Each center reports briefly to CMVIC headquarters every month: The numbers of inspected vehicles by type of vehicles with pass and fail status.

Identification of the vehicle, visual inspection	• The roles of inspections on the identification of the vehicle and visual check were vaguely overlapped between government officers and private inspectors and the distinction is not clearly made. Therefore, where responsibility lies tends to be unclear and this might lead to the incompletion of the inspections. Additionally, rules applied are different from center to center. • The timing and place of the identification of the vehicle and visual inspection are not fixed in the inspection process in some centers. For instance, some centers executed the identification of the vehicle before and after a series of inspections with testing equipment. Consequently, failures not to inspect some inspection items could happen due to the unfixed procedure. • An inspection center is adopting an individual procedure in which they use a Post-It note with their seal if they judged the vehicle as non-illegal modification one. • In the identification of the vehicle and visual inspection, only basic items such as lights, tires, number plates, state of the body, chassis number are checked by inspector(s) and as a whole the inspections could be regarded as simple inspections. • Engine rooms are not opened during our site-visits and this was assumed that the process was not included in their daily inspection procedure. • Normally the inspection process stops once illegal modification was observed. However, we observed a case where DPWT conducted all the process even when they noticed the illegal modification in response to the claim from the owner. As for the other centers, more or less, the daily procedure of each center toward the illegal remodeling seemed to be different one another.
Underbody inspection	• Better operations than the visual inspection • Detail explanations are given to vehicle owners (Positive aspect). • However, poor underbody inspection was also observed at a center due to lack of inspector's skill and knowledge.
Common items (Visual inspection)	• Fail items are not filled in the test report but only in the agreement document. • The original agreement was kept in center(s) for 5 years without entry into any system and that make it difficult to do follow-ups. • Even if one or some inspection item(s) were failed, vehicle owners have still some chances to pass the inspection under some conditions. For example, comprehensive judgment is made at a center, and an inspection might be passed if the inspector judges fail items less important. • In relation to the above, there are some cases that inspection results were filled in, not right after they were finished, but somewhere else later. This operation appears to cause arbitrary judgments and operations, leading to the incompletion of the inspection. • The judgment criteria of an inspector and a center with regard to pass and fail vary.
Procedures in fail cases and their problems	• The procedures for fail cases are largely as follows. ➢ In case of a fail, a vehicle owner and the company make an agreement on items to be repaired. In that case a certificate is not issued. ➢ Original agreement document is given to the owner and a copy of the agreement is kept in the inspection center for 5 years. ➢ Vehicles that failed an inspection had to be re-inspected within 30 days after repaired.

(d) Issues identified through the research

• As a result of the research and interviews etc., we identified issues on vehicle inspection in Cambodia as follows.

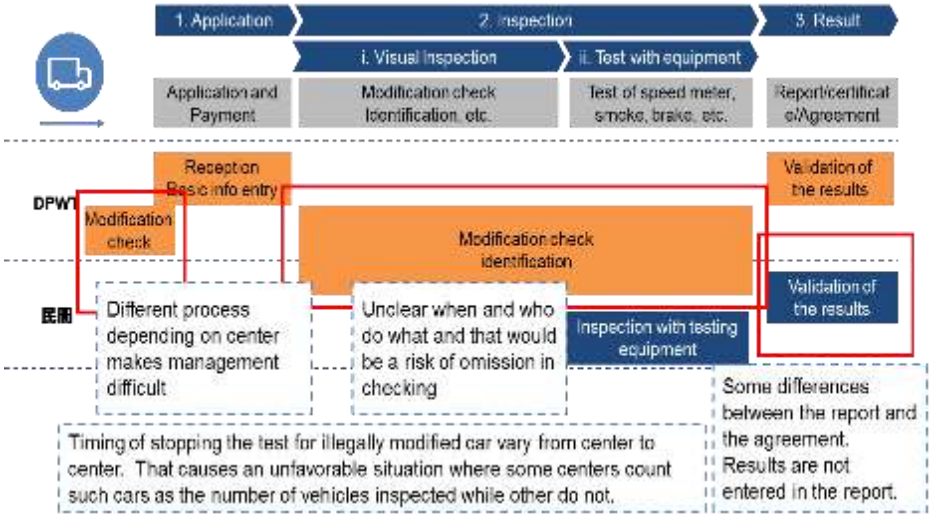
issues	explanation
Overall view	• As a whole, it can be said that management rules are not well stipulated in the current inspection system. • For instance, Prakas on Management of Vehicle Technical Inspection Center does not stipulate the reporting rules enough; it only stipulates that private companies need to report the number of vehicles inspected with passing status to GDT monthly, quarterly, and annually. Another example is ill-defined requirements. The above Prakas has a list on testing equipment to be equipped with an inspection center but no description on specification requirements. As for inspectors, the Prakas requires at least one skilled engineer but does not provide its detailed definition. • The Prakas also mentions that testing equipment at inspection centers shall be inspected or calibrated by GDT annually or when needed.
Issues regarding the Inspection System and its Management	• Items to be managed concerning the implementation of the inspection are not clearly organized and documented. These things make their management more difficult especially in terms of what and how to monitor and manage. In addition, the attitude towards the management among DPWT might be an issue since the mindset and recognition towards management form the fundamental. • The following chart (chart 5) illustrates that overview of the issues regarding management system.  Issues regarding management system
Observed issue	(1)Inspection with equipment • Inspection with equipment has an advantage that human errors are relatively unlikely to arise, intentionally or unintentionally. Still, in some cases certificates seemed to be issued and are at risk of being issued wrongly.



Observation and issues of inspection with equipment

(2)Management system

- Under the site-visits of the four vehicle centers, the following issues were commonly observed. Firstly, roles were overlapping between the public and private, also the division of the roles was not clear. In addition, the timing of checking modification differs depending on center.

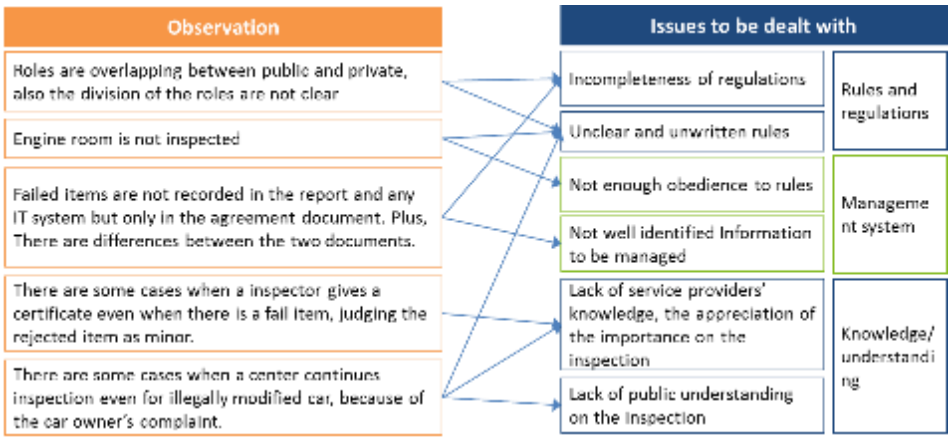


Main issues on the processes and role-sharing of the inspection

- The timing and place for doing the underbody inspection are fixed and the role-sharing is also clearly. In contrast, the roles of the identification of the vehicle and visual inspection including modification inspection between GDT/DPWT officials and the duties of private inspectors seemed to be complicated and unclear, depending on the center, which might have specific operation rules or procedures.

(3)Visual Inspection

- There are some problems, which stem from several backgrounds; rules and regulations, management system, and knowledge and understanding on vehicle inspection.



Observation and issues of visual inspection

Issues to be dealt with

- Based on the mentioned observation as above, issues to be dealt with are classified into 3 areas; regulation/rule, management, and knowledge/understanding.

Classification of the Issues to be dealt with

	Equipment Standards	Management System	Item prioritization
Regulation / Rule			
some contradictions in regulations			
no proper criteria for equipment and inspector	✓		
some regulations don't necessarily stipulate rules clearly		✓	
Management			
Info to be managed is not well identified and unwritten		✓	
Some rules are not abided by properly			✓
No proper checking system for managing implementation			✓
Knowledge /understanding			
Lack of understanding about management (DPWT's side)	✓	✓	✓
Lack of knowledge and understanding (Inspectors' side)			✓
Lack of understanding on the inspection (Car owners)			

(1)Issues regarding the regulation/rule

- The details of the classified issues are as shown in below.
  - Insufficient criteria about the inspection centers
  - The definition for an inspector is insufficient.
  - The testing equipment such as speedometer is listed in the requirement for centers have to be equipped with but no criteria about its specifications.

*The responsibilities for private companies to maintain equipment so that the equipment is ready for use in line with the regulation, but Prakas does not clearly stipulate who is responsible for what regarding the calibration of the testing equipment

(2)Issues regarding management

- Management system is not set up properly inside MPWT and within each inspection center; they report regularly but very simple reporting. Furthermore, the definition of some items in reporting seems to be slightly different one another.
- Their understanding and mindset towards management responsibilities differs from center to center.

	• Pass and fail information are not included in the reporting to MPWT although the information is shared by the centers. • What information they should grasp and manage in order to improve the inspection system is not yet examined enough. • As the definition about an inspector is insufficient, appropriate judgment on hire of inspectors or existing inspectors cannot be done. • No certification criteria about the testing equipment. • No maintenance guidelines on the testing equipment. *The situation is likely to remain almost similar where there is one center for one area for the time being. Under the circumstances, it might be difficult for the government to give a suspension of business to a company even when needed.
(3)Knowledge/understanding	• Some DPWT's officers seem to think they do not have right and obligation to manage the centers. • Some inspectors are lacking in knowledge and understanding of the significance of inspection. • Some vehicle owners seems not to understand the significance well.

2-1-2 Inspection systems and existing practice in neighboring countries

<Planned activities>

- In order to introduce the practice of other countries to Cambodia, appropriate examples will be selected from Japan and Cambodia's neighboring countries, such as Thailand, Vietnam are summarized based on publicly available information.
-

<Actual activities>

(a) Technical Standards for Equipment

- We confirmed and introduced how technical standards for equipment are set in laws and regulation on vehicle inspection equipment in Japan. As shown below, an act named "Road Trucking Act" stipulates that a designated garage should have facilities that must meet the conditions set by the government.

Figure 7 Technical Standards in Japan

- The figure below is a specific example of technical standards for equipment (sideslip tester) in Japan.

Structure	Durability
A sideslip tester must have a sideslip detecting unit and a sideslip indicator. And the tester must be easy to use.	Each part must have high durability.
Operation	**Accuracy**
Each moving part has to operate smoothly and reliably.	The range of error must be within 0.3 mm.
Sideslip Detecting Unit	**Sideslip Indicator**
The contact point between its sideslip detecting unit and a tire does not have any extreme distortion. The surface of the sideslip detecting unit should not be extremely slippery.	The indicator must indicate the level of sideslip when a vehicle runs a meter in a millimeter unit. When the level of sideslip is indicated by a scale, the indicator has to meet the following requirements; • Scaled every 1 mm or less • Maximum scale value >= 7 mm • It clearly shows the direction of sideslip • Easy to read the indicator

Figure 8 Technical standard set for sideslip tester in Japan

- Technical standards for other pieces of equipment also have the same contents; structure, durability, operation, detector, indicator, and accuracy.
- Referring to the standards in Japan, MPWT and JICA experts have to modify them according to the situations in Cambodia.

(b) Equipment Management System

- The overall view of the maintenance management flows of vehicle inspection equipment in Japan. First, the basic information of equipment is recorded in a registry form when the equipment is installed at a center.
- After installation, the equipment is maintained regularly. The routine maintenance is divided into two; daily check and periodical check such as monthly check. Such checks are done by reference to the equipment check guidelines, and the results are recorded on the check sheet. When calibration or repair is done, the results are recorded on the equipment registry.

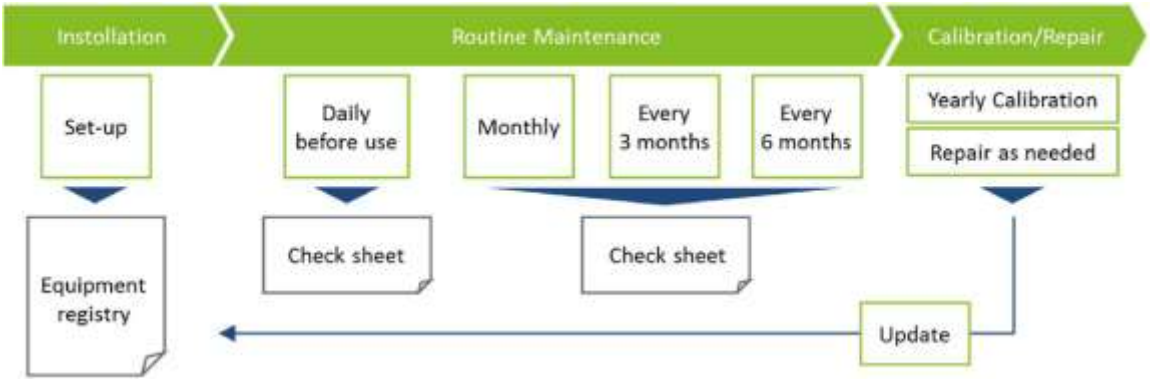


Figure 9 Overall picture of maintenance management of equipment in Japan

Activity 2-2. Suggest relevant vehicle inspection items which can be appropriately adopted in the Cambodian environment

<Planned activities>

- Inspection items and standards is drafted and proposed in collaboration with the Chief Advisor taking into consideration the current situation in the vehicle industry and existing regulations, taking into account the outcomes in Task 1.

<Actual activities>

- In view of Cambodia's current situation in visual inspection, where incomplete implementation may be observed, it was decided in November 2017 that C/P should be the policy of prioritizing visual inspection items. Based on the priority items proposed by C/P based on this policy, JICA experts proposed inspection items to be considered first.
- The reason why visual inspection items are prioritized is as follows.
    - ✧ Inspection standard regarding equipment inspection had already implemented, and also, as MPWT didn’t have inspection data, it was difficult to determine the appropriate numerical standard for Cambodian situation.
- The prioritized items of visual inspection were determined by considering the ease of judgement and safety shown as below.

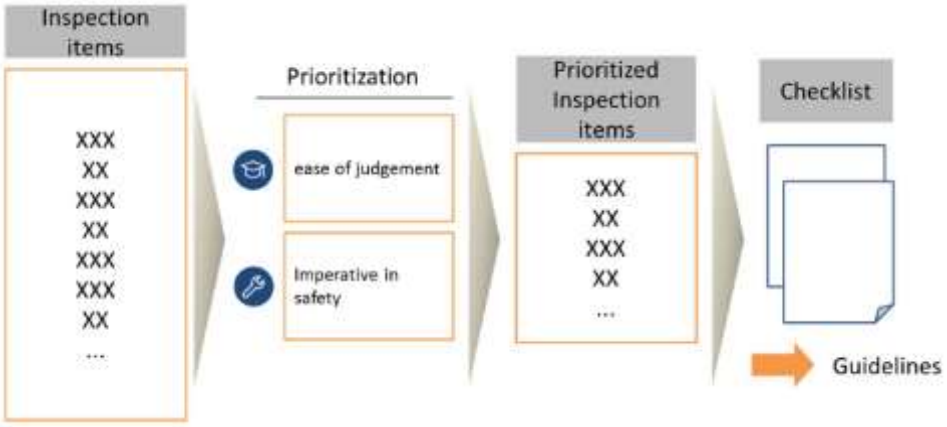


Figure 10 The concept on how to prioritize visual inspection items

- As for the criteria related to each selected inspection item, JICA experts suggested referred to the current conditions of Cambodian vehicles and the Japanese system as a reference, taking into consideration the existing criteria of Cambodia.
- Based on the proposal from JICA experts, corrections were made through discussions with C/P several times, and the items for inspection and their standards were finalized in December 2017.

Table 31 Approved inspection items for visual check

Type of visual inspection	Appearance inspection	Underbody inspection
Inspection item	• Wiper • Windshield • Seat-belt • Door/door hinge • Driver seat/front seat • tire • Wheel nut/hub bolt • Side guard • Turn signal • Brake lump	• Radiator • Engine • Gearbox & differential • Steering gearbox • Steering • Stabilizer • Propeller shaft/joint • Leaf spring/shackle/U bolt • Brake pipe/hose • Shock absorber • Fuel pipe • Drive shaft • Exhaust pipe/silencer • Frame/body

Activity 2-3. Examine the requirements for the design of accreditation standards for private sector vehicle inspection systems

<Planned activities>

- Based on the information collected in Task1, differences between the accreditation standards in Cambodia and overseas accreditation standards, including those in Japan, are analyzed. Furthermore, the issues with existing accreditation and selection standards and management system required from the accredited entities are further examined in order to further understand the relevant issues and potential impact on the proposed vehicle

inspection system. On the other hand, the expected effects from the implementation of accreditation standards similar to those in Japan and other countries are examined from various aspects.

- Accreditation standards regarding “designated garages” for implementing vehicle inspections and “certified garages” for providing maintenance services in Japan are also reviewed to examine whether the same can be applied to Cambodia in the future.

<Actual activities>

- JICA experts introduced Japanese system of designated garages and certified garages, management of inspection equipment to MPWT at the seminar we held in May 2017.

Table 32 overview of the Inspection Equipment Seminar

Purpose	Understanding of technical standards and maintenance for vehicle inspection equipment in Japan
Target	GDLT staff, private vehicle inspection contractor
Contents	Technical standards for Equipment • Laws and Regulations related to Equipment • A set of Equipment that an inspection centers are required to equip • Technical Standards for Equipment: Overview and Some Examples Maintenance Management • Quality Control • Maintenance Management Rules • Some Forms for Maintenance Management

- Also, it was explained in training in Japan every year, by lecture from MPWT, visit to a designated garage and the visit to a college for automobile mechanics.
- However, at the beginning of this project, there were not oversight system of the vehicle inspection operated by private companies. Therefore, JICA experts judged that it should be prioritized to set the criteria of inspection center of MPWT/DPWT (operated by private companies), inspectors, inspection centers, inspection equipment, monitoring of the inspection and equipment.
- By November 2017, based on the Japanese system, a framework for vehicle inspection requirements was created, and while conducting interviews with C/P, a draft vehicle inspection requirement was prepared. After that, the system was updated in view of the current situation of the Japanese system and Cambodia, and after confirming the contents with C/P several times, it was finalized in December 2017.

Activity 2-4. Examine incentive schemes for motor vehicle owners

<Planned activities>

- In Japan, the vehicle inspection has been promoted through the introduction of various penalties, such as restrictions on driving on public roads for a certain amount of time, and premium discount for vehicle insurance for inspected vehicles. The survey examines carefully whether such kind of incentives can stimulate Cambodian vehicle owners to participate in the vehicle inspection system.

- Similarly, incentive schemes in other countries are introduced to MPWT, so that MPWT could make it the reference.

<Actual activities>

Introduction of the other countries' case

- In order to examine incentives for improving the vehicle inspection rate in Cambodia, we researched the incentive measures introduced so far in Cambodia. We also researched similar efforts in neighboring countries such as Thailand and Malaysia. Based on the results of these researches, we examined and arranged incentive options, and reported as follows at the 3rd JCC (December 2017).

(a) Thailand

- As there are obligatory vehicle registration renewal system in Thailand, they could check and find out vehicles which do not take vehicle inspection when they receive the application for the renewal of vehicle registration.
- Also, if traffic police found uninspected vehicles, they are fined up to THB10,000 (approximately USD3,000).
-

Table 33 Incentive scheme in Thailand

Summary	**The government of links inspection with annual renewal of vehicle registration as well as impose penalties for non-inspection.**
Name of laws/regulations (Responsible authorit7-1. y)	Motor Vehicle Act (District Land Transport Bureau) Land transport Act (District Land Transport Bureau)
Compulsory or Voluntary	Private vehicles: Compulsory Commercial vehicles: Compulsory
Frequency	Private vehicles: 7 years from registration and then once every year Commercial vehicles: once every year (twice a year for taxi)
Inspection Scheme	Implement at private inspection station 1. Side brake, 2. Side slip, 3. Speed meter, 4. Noise level, 5. Emission gas, 6. Headlamp
Dissemination	Vehicle inspection is required for renewal of vehicle registration to be conducted every year
Penalty	If owners do not renew vehicle registration (inspection), they are to be fined for up to THB10,000 (≒ USD300)

Source: An evaluation of the effectiveness of private vehicle inspection process in Thailand
Journal of the Eastern Asia Society for Transportation Studies, Vol.6, pp.3482-3496 (2005)11

(b) Malaysia

- Private vehicles aren't required to be inspected in Malaysia but only commercial vehicles are.
- In order to percentage of the inspected vehicles, they improve the access to inspection centers by increasing the inspection centers, implementing mobile inspection, and set penalty system
- Also, tax rebate system is now under consideration.

Table 34 incentive scheme in Malaysia

Summary	**The government tries to disseminate vehicle inspection by improving its quality, convenience and transparency, and tax rebate is being discussed**
Name of laws/regulations (Responsible authority)	The Road Transport Act, 1987 (Act 333) The environmental quality Act 1974 (Act 127) Commercial vehicles Licensing Board Act 1987 (Act334) and others
Compulsory or Voluntary	Private vehicles: Voluntary Commercial vehicles: Compulsory
Frequency	Private vehicles: N/A (At any time) Commercial vehicles: once a year for 3 year after registration, and every 6 month thereafter
Inspection Scheme	Periodical Inspection for commercial vehicles 1. Identity, 2. Above-Carriage, 3. Emission, 4. Brakes, 5. Side Slip, 6. Speedometer, 7. Headlights, 8. Undercarriage, 9. Tinted Glass, 10. Suspension
Dissemination	• Prepare various types of inspection service (e.g. visiting, mobile) • Ensure transparency in the inspection process flows and fees • Tax rebate for inspected vehicles are being discussed (as of 2016)
Penalty	Driving without inspection could lead to a fine of MYR5,000(=USD1,150) or imprisonment for a term not exceeding 5 years, or both

Source: Ministry of Transport, PUSPAKOM

Suggested measures to Cambodia

- Based on the examples in Thailand and Malaysia, we considered possible vehicle inspection incentives in Cambodia.
- At first, there seemed to be a high hurdle in establishing an incentive system like Thailand, because there was no vehicle registration renewal system in Cambodia.
- Instead, in Cambodia, it seemed necessary to make vehicle inspections more transparent to improve the public's lack of understanding of the vehicle inspection’s effects and of the vehicle inspection system, and the lack of public information related to the vehicle inspection system, which might have led to low vehicle inspection rates.
- Therefore, as a first step, it is necessary to improve awareness and education of vehicle inspections.
- In addition, it is necessary to improve the quality of the vehicle inspection itself.
- Furthermore, consideration of economic incentives is effective. Negative incentives such as penalties has been already adopted in Cambodia, but implementing positive incentive is also possible such as reduction of taxes and fees for inspected vehicles.

Elements	Measures
1. Effective and Efficient	• To conduct periodic training seminars for inspectors to ensure proper inspection process and role of inspection • Routine check on the performance of inspection • To improve convenience of inspections for car owners
2. Transparent and Accountable	• To make clear inspection flows and processes to vehicle owners • To provide complete inspection reports to vehicle owners
3. Participatory	• Owners should be informed and have understanding of the importance of inspection
4. Compliant with laws/regulations	• Number and qualification of technician and supervisor should comply with related laws and regulations • Inspection check list should be completed
5. Affordable	• Offer discounts of taxes for compliant vehicle owners • Lower the fee level of inspection

Figure 11 Assumed incentive measures

Activity 2-5. Propose the introduction of mandatory vehicle liability insurance, as needed

2-5-1. Analysis of the possibility for the implementation of mandatory vehicle liability insurance

<Planned activities>

- Currently, Cambodia is experiencing high levels of traffic accidents, including a number of serious ones. In this project, JICA experts introduces liability insurances system in some other countries, and raise understanding of those merits.

<Actual activities>

- In the 3rd JCC, JICA experts introduced some compulsory third party (CTP) insurance system to MPWT as follows.

(a) Overall

- Many of the countries in the world have already adopted the regulations on compulsory third party (CTP) insurance to protect the victims of vehicle accidents as well as the drivers who would otherwise bear the burden of high compensation cost without the insurance coverage.
- Meanwhile, the landscape of CTP is varied even between the developed counties. It depends on how much it costs for the insurance and how much you have to pay for compensation of victim's death and physical impediment.
- From a regional perspective, South East Asian countries have lower participation than other regions. Nevertheless, it is worth looking at the cases of Thailand and Malaysia as two of the leading countries in their efforts to introduce and disseminate CTP in order for Cambodia to consider and decide on what paths to take in the near future.

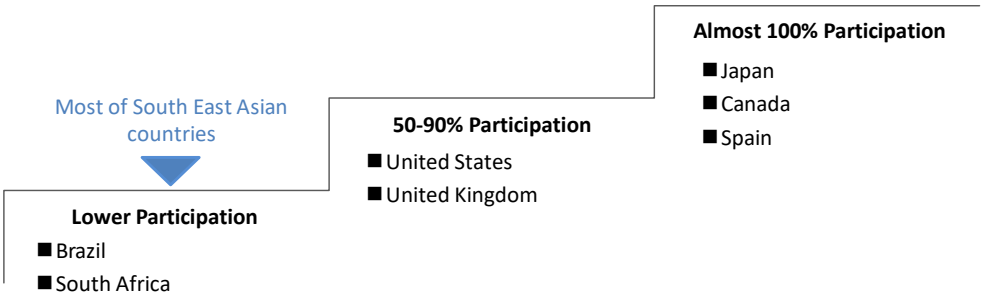


Figure 12 the level of penetration of CTP

(b) Case study in Thailand

- There is compulsory third party insurance system in Thailand, and when vehicle owners register their vehicles, they have to show their insurance policy at the counter. As we explained in "activity 2-4", since there is registration renewal system in Thailand, this system works effectively.
- There is penalty system as well.
  -

Table 35 CTP system in Thailand

Summary	**Most successful CTP regulation in South East Asia in terms of participation rate.**
Type of Insurances	• Compulsory Third Party Insurance (CTPI) • Voluntary Insurance (VI)
Coverage	• CTPI: Passenger, Victims • VI: Drivers, Damage coverage, Loss, Fire, Theft (depends on the class)
Obtain	• At the Land Transport Office or private insurance companies • Drivers need the insurance when they renew their vehicle registration
Coverage Amount	• Injured: max of THB110,000 (≒USD3,300)* • Death: max of THB335,000 (≒USD10,050)* *It depends on the selected insurance company
Penalty	If they don't have insurance, they face a fine of THB10,000 (≒USD300) to THB50,000 (≒USD1,500)

Source: Bangkok Insurance, Road Accident Victims Protection Co., Ltd.

(c) Case study in Malaysia

- Vehicle insurance is required to all the drivers in Malaysia.
- Although the driver can choose the type of insurance from those approved by the ministry, All approved insurance cover "victims", so victims can be compensated for injuries and other injuries.

Table 36 insurance system in Malaysia

Summary	**Regulations are in place, but the result is still halfway**
Type of Insurances	It is required that drivers participate in one of the following insurances: 1. Comprehensive cover 2. Third party, fire, theft cover 3. Third party cover
Coverage	1. Comprehensive: cover victims including their vehicles and your vehicles 2. Third party, fire, theft: cover victims (vehicles), and your car damage by fire and theft 3. Third party: cover only victims (vehicles)
Obtain	• At private insurance companies • You need a third party car insurance to renew road tax from Road Transport Department
Coverage Amount	Coverage amount depends on the insurance company
Penalty	If they don't have insurance, they face a fine of up to MYR3,000 (≒USD720)

Source: http://www.insuranceinfo.com.my/

(d) Potential merits of the compulsory third-party insurance

- Victims of traffic accidents will suffer without their own fault, and in some cases, they will either die or lose their jobs.
- On the other hand, the perpetrator may not always have the ability to compensate for the damage, and even if it can pay, the economic impact of the perpetrator is extremely large. Of course, there is also a perpetrator's own damage.
- However, if compulsory third party insurance is applied, both perpetrators and victims can recover their lives from traffic accidents. It is considered desirable that such an insurance system be introduced in Cambodia. (However, it is not included in the improvement plan of this project.)

Table 37 Merits of Compulsory Third-party Insurance

Merits for Citizens	Drivers	• Obtain protection from heavy burden of compensation
	Victims	• Guarantee that victims can receive medical services after accident
		• Without the assault's voluntary insurance, victims are covered by the government without fear of default (In case the government provides insurance)
Merits for Government	Transport Authority	• Investment profits would contribute to the establishment and operation of care facilities for physical impediment
		• Investment profits would contribute to the assessment of vehicle's safety performance
	Hospitals	• Guarantee that hospitals can recover payment of medical expenses from the patients

Source: Portal Site for Compulsory Car Insurance, Ministry of Land, Infrastructure, Transport and Tourism of Japan

2-5-2. Capacity building for motor vehicle mechanics

<Planned activities>

- In order to keep vehicles in good condition, it is important to ensure that they are properly maintained and repaired at private garages. To achieve this, trained mechanics need to be deployed at private garages as well as at vehicle inspections.
- Therefore, JICA experts introduce a designated maintenance factory and an auto mechanic qualification system in Japan while considering the necessary measures to ensure the service quality of the private garage in Cambodia.
-

<Actual activities>

- Through the process of development of vehicle inspection guidelines, we have identified several issues surrounding not only inspection centers but also maintenance factories/garages across Cambodia.
- One of the main issues is that there are lacks of regulations/rules, management and knowledge/ understanding in the inspection centers, which results in improper inspections
- It has also been pointed out that the maintenance factories are incapable so that the vehicles that have failed inspections cannot be repaired properly and pass the re-examinations.
- To improve the situation, it is imperative that a solid ecosystem of inspection and maintenance is established as described below involving all the major players, namely the government, inspection centers and maintenance factories / garages.

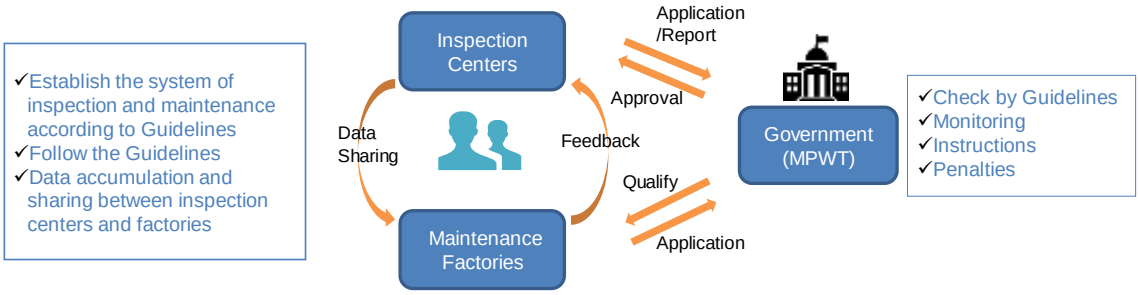


Figure 13 improvement measures for the vehicle inspection procedure

- In this project, we prioritized capacity building and improvement of management system of MPWT. Although we suggested the improvement plans for private maintenance factories/garages as follows, it is not assumed to be realized within the project period, but is proposed to be realized in the future.

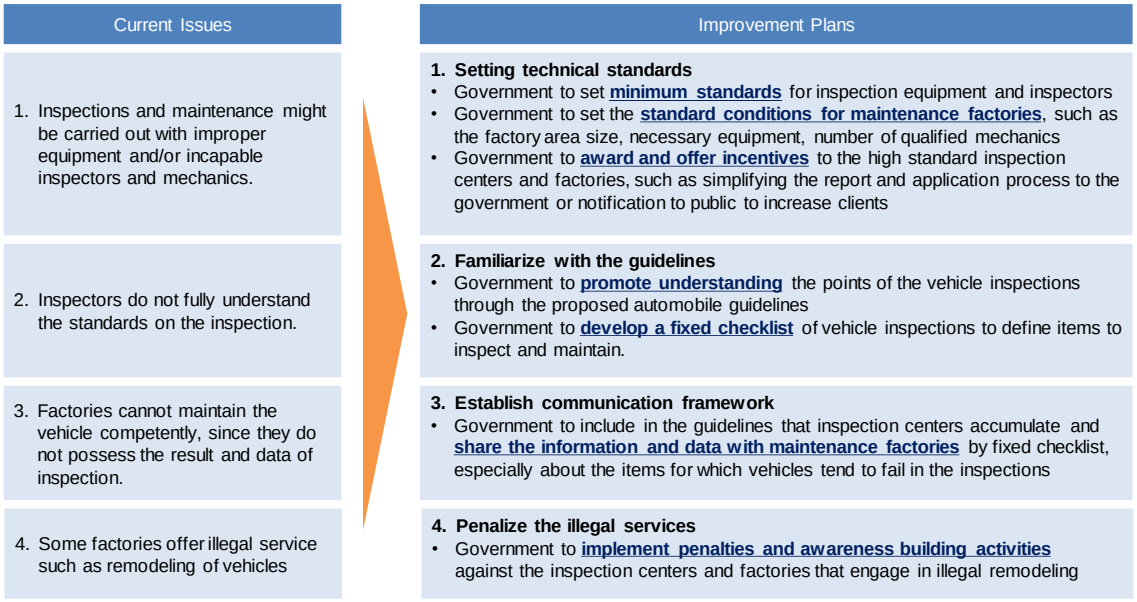


Figure 14 improvement plan

Activity 2-6. Prepare the guidelines for motor vehicle inspection

＜Planned activities＞

- An improvement plan on the vehicle inspection system is proposed based on the outcomes of the previous activities.
- The guideline and checklist for vehicle inspection which reflects improved plan are created and proposed.
- The finalized draft guidelines and checklist are explained and get an approval in the 3rd JCC.

<Actual activities>

(a) Preparation of the improvement plan

- In considering the guideline contents, JICA experts held a seminar on the designated certification factory system and equipment requirements and management system for GDLT vehicle inspectors and CMVIC on May 25, 2017, in order to improve the understanding of MPWT's vehicle inspection.
- At the seminar, it seems that they are interested in the inspector's requirements. Regarding the equipment requirements, JICA experts was able to gain an understanding of C/P by showing a Japanese example, and they agree that they need to customize the Japanese system.

Group photo of the seminar related to vehicle inspection

Scene of the seminar related to vehicle inspection

(b) Proposal of the improvement plan

- Based on the extracted issues through activity 2-1, JICA experts proposed improvement plan for those.

Table 38 improvement plan

Item to be improved	Improvement plan
<Regulation and Rule> Standards for Equipment and Inspectors	The project proposes that MPWT sets standards for inspection equipment and inspectors. In this report, standards regarding equipment will be covered. <Improvement plan> • GDT sets technical standards for inspection equipment and standards for inspectors, which are expected to serve as a basis for decisions regarding equipment and inspector. • First, JICA experts will introduce cases in Japan. • Then, MPWT will suggest how to modify the cases to fit the Cambodian situations • MPWT and JICA experts will have discussion reflecting the MPWT's feedback, and prepare standards for Cambodia. <Expected effect> By setting those standards, it is expected that you would have the following effects; • Standards will enable GDT to make decisions based on criteria. • Standards would contribute to securing a certain level of quality of inspection. • The technical standards for inspection equipment, especially part of accuracy, will serve as a basis for calibration.
<Management> Management System of Equipment	The project proposes that MPWT introduce a maintenance management system for inspection equipment. Currently, there are concerns on inspection equipment, for examples, whether the private company maintains equipment properly. However, so far MPWT fails to understand clearly what the private company is doing for management. This situation is partly attributed to the fact that there are no documents that clearly states what private companies should do in equipment maintenance management and what MPWT should check.

	<Improvement plan> • Introduce a management system, by reference to cases in Japan. • First, JICA experts will introduce cases in Japan. • Then, MPWT and JICA experts will modify them according to the situation in Cambodia. <Expected effect> Introduction of a maintenance management system of inspection equipment is expected to bring about the following effects; • It will give a clear understanding what to do and what to be checked. • It will bring about common understanding about maintenance • management among the government side and private side. • It is also enable for anybody to see the status of maintenance easily. • It will bring a higher credibility to the results of vehicle inspection. • It would give the equipment a longer life.
<Knowledge/Understanding**>** Prioritization of visual inspection items	<Improvement plan> It would not be realistic to get inspectors to do visual inspection for all the inspection items as there are a number of items to cover. Hence, we have to narrow them down to a smaller number of items first. • We need to decide the criteria for the prioritization. We propose two aspects; ease of judgement and significance in safety. • Once items are prioritized, we will prepare a checklist for visual inspection and incorporate it into the guidelines. <Expected effect> By prioritizing visual inspection items, it is expected that you would have the following effects; • It would reduce cases when inspectors omit visual inspections. • It would enhance the credibility on vehicle inspection. • The status of implementation of visual inspection will be visualized.

(c) Preparation of guideline and check list

- Based on the research results and the response to the seminar, a draft table of contents for vehicle inspection guidelines was created by November 2017, and written as follows according to the table of contents items.
- As for visual inspection, JICA experts drafted the manual for the inspection items decided in Activity 2-2, taking into consideration the Japanese manual and the current situation in Cambodia. After that, it was finalized in consultation with C/P several times. JICA experts created a checklist based on the finalized manual, and C/P confirmed it.
- JICA experts prepares a draft of a manual with a reference to a Japanese system, and a draft is a finalized after discussion with C/P. At a same time, a checklist based on the finalized manual is drafted, and C / P confirmed it.
- Regarding the requirements of inspectors, JICA experts made a draft in consideration of the contents of consultation with C/P, and then finalized it after consultation.

  A draft for automobile inspection equipment requirements was created with reference to the Japanese system. C/P made corrections, and followed by consultations and corrections to the draft.

- Regarding the incentive measures, JICA experts and the present conditions of Cambodia were examined, and JICA experts made a draft concerning penalty points, and then finalized after discussing with C/P.

(d) Proposal of guideline and checklist

- After completion of each component of the guideline, JICA experts and C/P review the entire guideline again, make minor corrections, and propose it as the completed version of the guidelines at the 3rd JCC in December 2017, and got approval.

Table 39 summary of the vehicle inspection guideline

Item	Summary
Chapter2: Standards and requirements	
Centers	1.Facilities / Premises e.g. face onto a boulevard, paved on the center premises 2.Inspection Equipment 3.Maintenance and Calibration of Equipment 4.Requirements for staff e.g. a person in charge of center/equipment, inspectors 5.Inspection Procedure 6.Record keeping / Reporting
Inspectors	1.Ability to read and write Khmer language 2.Driver's license (license by type of vehicle) 3.Inspector Certification from GDT *1 & 2 are only for new inspectors
Inspection equipment	Standards consist of three categories: (1) Structure, items such as functions and size of elements are described (2) Indicator, for example, minimum and maximum scale value is defined (3) Accuracy part, most importantly, defines the permissible error range
Chapter3: Visual Inspection	
Manual	• Explains the inspection methods for the prioritized visual inspection items and standards for judgement. • The manual consists of "appearance inspection" and "underbody inspection". Both categories have the same structure. Each inspection item has one or several check points. • Inspectors are expected to inspect each item according to the check points explained in the item. Each check point illustrates what inspector should do and how inspector should make a judgment.

The name of part	
Wheel nut / hub bolt	

Inspection method and standards for judgment
A inspection method
B standard for judging

Check 1 check if all the wheel nut is set

B	All the nut is set	Pass
B	There is a missing bolt for tires with 6 or more bolts	Fail (1)
B	There are more than one missing bolts for tires with 6 or more bolts	Fail (2)
B	There is a missing bolt or are more missing bolts for tires with 5 bolts or less	Fail (2)

Check 2 check if nuts are loose or not

A	Check visually if nuts are loose or not	
B	Nuts are tightened properly	Pass
B	Nuts are not tightened properly	
A	Check for looseness with a hammer tap with a hammer more than half of the nuts of each tire	
B	You hear a metallic sound when tapped	Pass
B	You hear a dull sound when tapped	Fail (1)
A	Check all the nuts of the tire	Fail (1)

Chapter4: Maintenance of equipment

Inspection equipment maintenance

- This part illustrates how the equipment should be managed after its installation. It starts with the registry. Then, inspection centers must conduct routine maintenance of equipment every one, three or twelve months, according to the manual. After doing maintenance, centers keep a simple log using the check sheets. When centers conduct calibration of equipment or repair equipment, centers need to update the registry of the equipment.

Equipment maintenance schedule

Headlight Tester

Monthly Maintenance Checkup	3 Month Maintenance Checkup	12-Month Maintenance Checkup	Maintenance of Calibration Equipment
	1. Clean the dust off the light receiving part 2. check tester rail for horizontal level 3. check wheels for looseness 4. Lubricate wheels	1. perform in-house calibration with a calibration equipment 2. Check the rail for distortion	1. Get calibration equipment checked by manufacturer every three years 2. the accuracy level that the calibration equipment has to meet complies with the standard set by

Equipment	Interval	Points to check	1	2	3	4	5	6	7	8	9	10	11	12
Side Slip Tester	3 month	Checking smoothness of side plate												
		Side plate returning to original position												
	12 month	Removing slide plate and checking each part												
		Calibration with calibration equipment												
		Lubricating moving parts												

Check sheet for inspection equipment maintenance

Chapter5: Monitoring of Centers	
Monitoring	• When any violation against guidelines and relevant regulations is confirmed at an inspection center, penalty points are to be added to the center. That way, violation situations at each center are visualized with the points. That enable MPWT to understand the situation easily and take necessary measures.

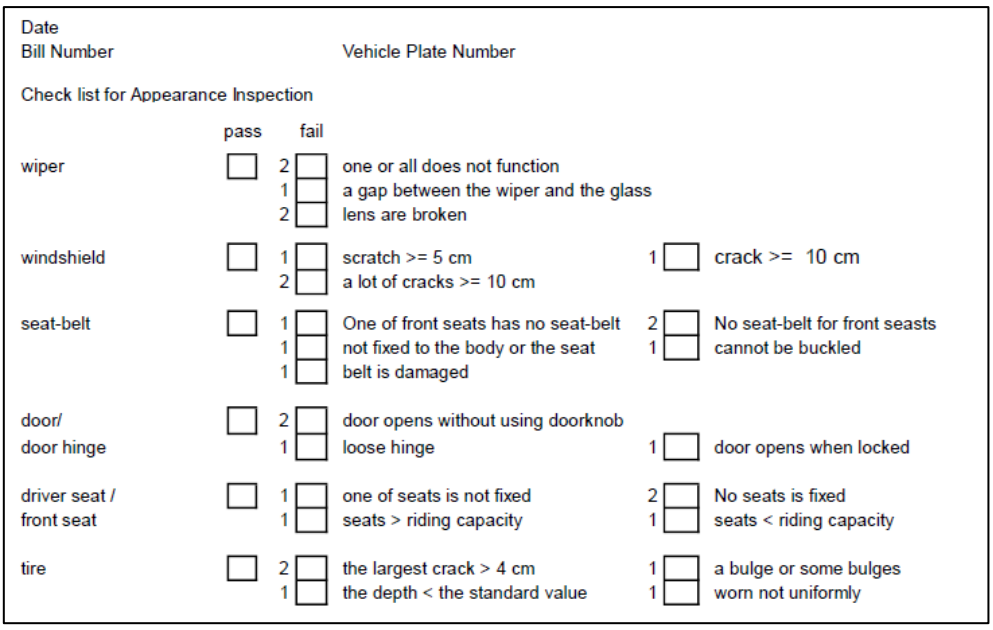
Name of Company:

Name of Inspection Center:

Date	Item	Points	Total	Signature	
				Center	MPWT

Category	Item	Description	Point
Facilities of centers	non-conforming facilities	Facilities do not follow the requirements (per case)	6
Inspectors	Violation of Appointment of inspectors	The number of inspectors appointed is less than the defined number	15
		False information on the appointment of inspectors	15
		Appointment of inspectors are not submitted	3

Examples of penalty point description on the Monitoring sheet



Date
Bill Number Vehicle Plate Number

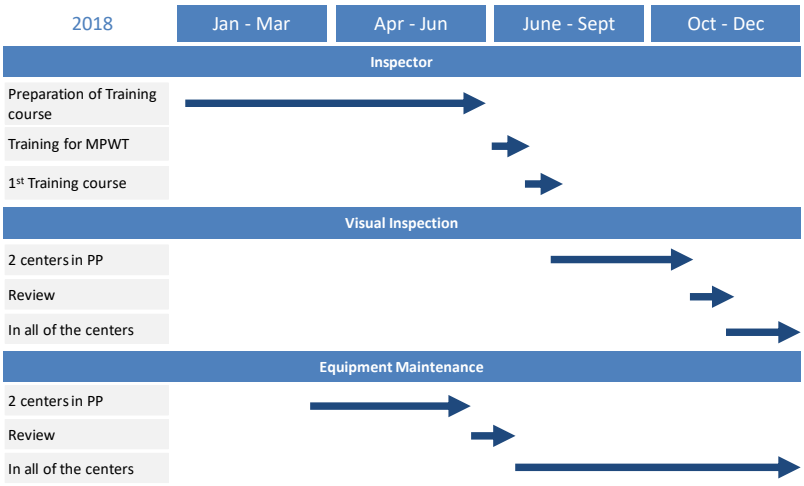
Check list for Appearance Inspection

	pass	fail			
wiper	☐	2 ☐	one or all does not function		
		1 ☐	a gap between the wiper and the glass		
		2 ☐	lens are broken		
windshield	☐	1 ☐	scratch >= 5 cm	1 ☐	crack >= 10 cm
		2 ☐	a lot of cracks >= 10 cm		
seat-belt	☐	1 ☐	One of front seats has no seat-belt	2 ☐	No seat-belt for front seasts
		1 ☐	not fixed to the body or the seat	1 ☐	cannot be buckled
		1 ☐	belt is damaged		
door/ door hinge	☐	2 ☐	door opens without using doorknob		
		1 ☐	loose hinge	1 ☐	door opens when locked
driver seat / front seat	☐	1 ☐	one of seats is not fixed	2 ☐	No seats is fixed
		1 ☐	seats > riding capacity	1 ☐	seats < riding capacity
tire	☐	2 ☐	the largest crack > 4 cm	1 ☐	a bulge or some bulges
		1 ☐	the depth < the standard value	1 ☐	worn not uniformly

Figure 15 Sample of the checklist for vehicle inspectors

- The tentative implementation schedule for guideline and check list was proposed in the 3rd JCC as well.

Table 40 Tentative schedule to implement guideline and checklist



- As for the vehicle inspection guidelines, since the need for minor corrections has arisen after that in the process of obtaining approval from the MPWT or training on the vehicle inspection guidelines, we confirmed and responded to the correction contents and the necessity of correction each time.

Activity 2-7. Monitor the vehicle inspection by private entities

2-7-1.Stakeholders workshops

<Planned activities>

- After the guideline is finalized, some workshops are delivered to stakeholders to promote the transition towards smooth application of the guidelines. Questionnaires will be handed out at each workshop in order to understand better the issues faced by government officials, staff at motor vehicle centers and service garages.
- The feedback from the questionnaire is expected to provide further insights for improving the guidelines, as well as the design and delivery of the workshops.

<Actual activities>

- We held seminar and several training sessions regarding vehicle inspection as follows.

Vehicle Registration and Inspection System Improvement seminar (June 7, 2018)	
Purpose	To introduce the importance of vehicle inspection system and registration system
Target	GDLT and DPWT staff, Vehicle dealer
Contents	"Introduce of MVRI project", "Explanation of vehicle inspection system", "How to use online application system for vehicle inspection and registration", "Introduction of vehicle type approval system", "Introduction of vehicle garage management system in Japan"

Implementation of 3-day training covering the general inspection guidelines (June 13-15, 2018)	
Purpose	To understand the overall inspection guidelines and acquire practical skills for visual inspection
Target:	GDLT and DPWT staff, private vehicle inspection contractor
Contents	"Lecture on automobile structure", "Requirements for vehicle inspection, inspection equipment, inspectors", "Visual inspection (lecture and demonstration)", "Vehicle inspection monitoring", "Inspection equipment management (maintenance and management method)"

Conduct of one-day training to affect inspection equipment (June 16, 2018)	
Purpose	Understanding of inspection equipment maintenance concept and acquisition of practical skills
Target:	GDLT staff, private vehicle inspection contractor
Contents	"Requirements for vehicle inspection, inspection equipment, inspectors", "Visual inspection (lecture and demonstration)", "Vehicle inspection monitoring", "Inspection equipment management (maintenance and management method)"

Conduct of training (the third) based on vehicle inspection guidelines (from December 8 to 9, 2018)	
Purpose	The training has been completed for all inspectors.
Target:	100 people. 95 of them are CMVIC staff who operate vehicle inspections.
Contents	"Requirements for vehicle inspection, inspection equipment, inspectors", "Visual inspection (lecture and demonstration)", "Vehicle inspection monitoring", "Inspection equipment management (maintenance and management method)"

- The number of participants of Training for vehicle inspection

Table 41 The number of participants

Training for inspection staff	June 13-16, 2018	November 1-3, 2018	December 8-9, 2018	Total
MPWT, GDLT, DPWT Officers	53	2	5	60
CMVIC Staffs	3	21	78	102
HK Staffs	0	9	17	26
Total:	56	32	100	188

- As training for all inspectors was completed, a pilot project was implemented to apply the inspection guidelines. (2 vehicle inspection sites in Phnom Penh, 1 CMVIC and 1 HK) (2 months from December 11, 2018)
- In order to support the need for periodic calibration of vehicle inspection equipment, from February 2019, we conducted the survey of equipment accuracy on all inspection equipment for vehicle inspections.

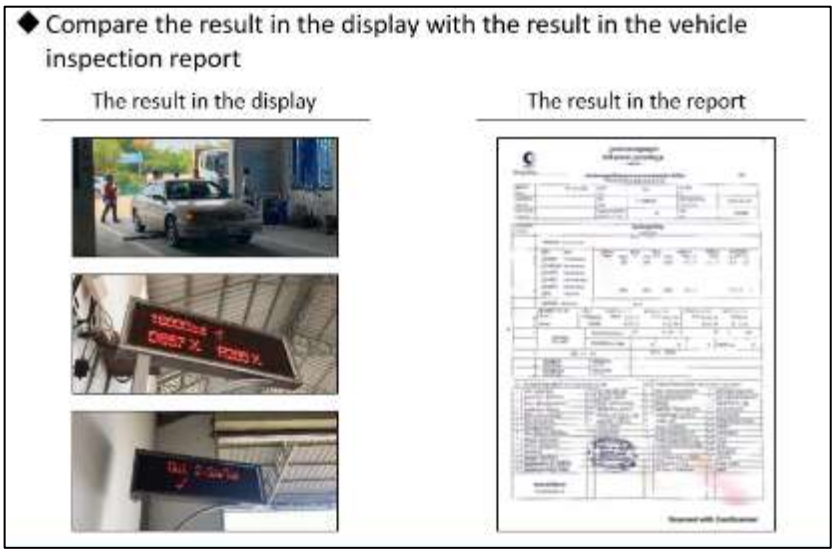


Figure 16 The Way of Monitoring

Training: MPWT staff giving lectures

Training: On-site training at vehicle inspection

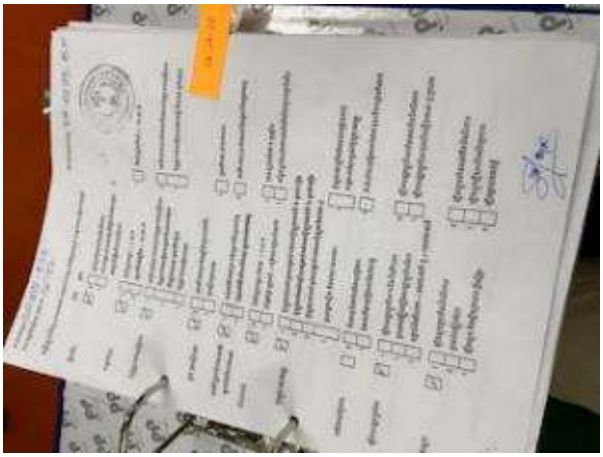
Training: On-site training (underside inspection) at vehicle inspection

Training: Participant who mentions to check sheet in on-the-job training at vehicle inspection

An inspector (CMVIC) who performs visual inspection using check sheet in pilot project

An inspector (CMVIC) who performs visual inspection using check sheet in pilot project

An inspector (CMVIC) filling in the inspection results on a check sheet in the pilot project



Pilot project: Management of check sheet with results (HK)

- A seminar on calibration of vehicle inspection equipment was held on **June 12, 2019** in **Phnom Penh**, in response to the request form DPWT. The purpose, target and contents of the seminar were as shown in the table below.

There were 14 participants from GDLT, private inspection contractors (CMVIC and HK). In Q & A session, several questions, such as details on a procedure on side slip tester were asked by the participants.

Calibration method seminar (June 12, 2019)	
Purpose	To introduce the calibration method of automobile inspection equipment in Japan For GDLT; aim at
Target	GDLT staff, private vehicle inspection contractor
Contents	Calibration methods of the following equipment; side slip tester, brake tester, weight scale attached to brake tester, speedometer, head light tester, sound level tester, CO/HC tester, opacimeter Q & A session


Opening remarks from Mr. So Pisey


Explanation from vehicle inspection expert

2-7-2 Monitoring

<Planned activities>

- In order to confirm the status of guidelines application and the expected outcomes, monitoring data based on predetermined indicators is obtained in cooperation with the monitoring experts. In case of unsatisfactory results, the project team aims at identifying root causes, including through interviews and site visits, and search for measures for improving the situation.

<Actual activities>

(a) Approval for proposed guideline by MPWT

- The guideline JICA expert team supported was approved by H.E. Sun Chanthol, Minister of Public Works and Transport.

Ministry of Public Works and TransportGeneral Department of Land Transport
No. 203 MPWT.GDLT

Phnom Penh, 27th March 2018

TO H.E. Senior Minister, Minister of Ministry of Public Works and Transport

Objective: Request for permission to implement the training action plan on Vehicle Inspection Guideline

Reference: The commitment of the 3rd Joint Coordination Committee on 18th December 2017 when hosted by Japan International Coordination Agency (JICA)

Regarding to the description in above objective, I would like to keep **H.E. Senior Minister** informed that there was the 3rd Joint Coordination Committee Meeting on 18th December 2018 about the modernization of vehicle registration and inspection system in Cambodia, which was running by Japan International Coordination Agency (JICA) presided over by **H.E. Touch Chankosal**, Secretary of State of Ministry of Public Works and Transport. The whole commitment of the meeting member was agreed together on the training implementation plan set by Japanese Experts in order to improve the modernization of registration and inspection system in Cambodia.

I would like to keep informed that after 18th December 2017, Japanese Exerts have coordinated with the official specialists of General Department of Land Transport (GDLT) to complete the vehicle inspection guideline, which this document is to be used in training to key stakeholders, relevant officers, and technical inspection staffs as nationwide with attachment here (Training implementation plan and vehicle inspection guideline).

Based on the above mentioning, I would like to propose to **H.E. Senior Minster** to approve on this training implementation pan on vehicle inspection guideline.

May **H.E. Senior Minister** accept my highest respect.

Director General H.E. Chhuon Voun

Figure 17 Approval from MPWT (Right Side; Translated in English)

(b) Confirmation of the situation regarding the nationwide development of pilot projects based on the inspection guidelines

- The pilot project itself (at 2 locations, CMVIC and HK in Phnom Penh) has ended, and the 2 locations have continued to conduct vehicle inspections based on the vehicle inspection guidelines. Reports on pilot projects will be prepared by GDLT in the future
- After approval of the guidelines, training has been provided to the MPWT and private companies doing inspection (CMVIC, HK) and their understanding has been deepened. After introducing the guidelines as a pilot project in Phnom Penh, it was planned to expand nationwide.
- However, because a private business operator (HK) 's fraud[4] was found in vehicle inspection monitoring by GDLT, it was suspended for 7 months since February 2018.

  It took time to decide whether to carry out a pilot project only at CMVIC or wait for HK to resume operations, and the introduction of guidelines was delayed from the initial schedule

(c) Confirmation of the preparation situation concerning Prakas development based on vehicle inspection guidelines and participation in the meeting

[4] MPWT decided to suspend HK operations for several months because it was found that HK had issued vehicle verification for vehicles that were not inspected at the inspection center

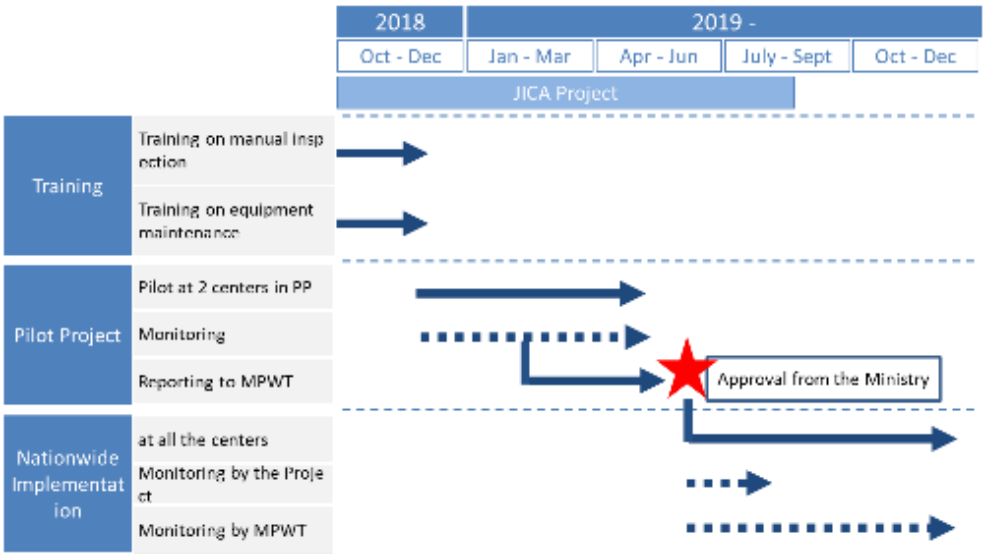
- The three Prakases are being revised to expand the inspection based on the inspection guidelines nationwide. Two of them, which are drafted mainly by Mr. So Pisey, have been submitted to MPWT, and are awaiting approval. Internal discussions on the remaining Prakas were conducted on 29th March 2019, with some progress. In the future, after the preparation of the Appendix part (various formats), discussions will be conducted again in GDLT and drafts will be prepared. Then, it will be submitted to MPWT (Senior Minister) and will be awaiting approval. (March 2019)

(d) Change of the schedule

As schedule was a little behind because of the suspension of one of the vehicle inspection center's operation etc., the vehicle inspection guideline implementation schedule was revised as shown in

- Table 42.

Table 42 Revised Schedule



(3) Output 3. The IT system for vehicle registration and inspection is improved

Activity 3-1 Confirm the current status and function of the existing IT systems for vehicle registration and inspection

3-1-1. Projection of issues and creation of interview sheet

<Planned activities>

- Follow the result of detailed planning formulation research, JICA expert will research the items and status of existing IT system for vehicle registration and inspection, including NiDA system, in order to get a grasp of the present IT system. The scope for the investigation is not only operations and functional requirements, but also things such as non-functional requirements. The investigation will be held by desktop research, interviews and visiting to several working sites.
- In addition, JICA expert will examine if there are any constraints for the data exchange between MPWT and related ministries such as General Department of Taxation, General Department of Customs and Excise, Traffic Police, and National ID from the viewpoint of IT system.
- After the mentioned activities above, JICA expert will present an overview of the IT system in Cambodia and will explain issues of the systems.

<Actual activities>

- Before explaining the survey results, it should be mentioned that MPWT has stopped using the existing IT system, which was built by National Information and Communication Technology Development Authority (NiDA5) and started to use an online application system newly built by themselves in MPWT's 100-day mission.
- As for NiDA systems, system flexibility and the service continuity were recognized as problems from the beginning. In addition, the network of the registered inspection offices only in Phnom Penh and 9 provinces were connected to the NiDA system, therefore, it took time for issuing registration certificates at other offices. Furthermore, it was also recognized as a problem that the system cooperation between vehicle registration and inspection and cooperation between MPWT and related ministries had not been progressed.
- Based on these issues, MVRI project planned to improve the IT system related to vehicle registration and vehicle inspection, but in July 2016, at the same time with the start of MVRI project, MPWT started to build a new online application system within the 100-day mission based on the same awareness of issues.
- Therefore, instead of confirming the IT system problems analyzed in the preliminary survey, we needed to start from the analysis of the newly built online application system from scratch. Additionally, as a new system had been built, it was necessary to reconsider what to do as the short-term strategy for the IT system.
- We started to interview the officials and vendors of the ministries for conducting the IT system research that MPWT was promoting.

[5] Current MPTC (Ministry of Post and Telecommunication)

Meeting with officials of GDLT

Meeting with officials in charge of IT system

Meeting with officials in charge of IT system

Visit Kamtranship

- In general, there are some documents which specifies business function or non-functional requirement to clarify the requirement and the structure of the system. However, we couldn't find any documents regarding the new IT system at that time.
- In order to make it possible to identify IT system issues effectively and efficiently, we created IT system documents (screen list, workflow diagram, System Configuration) based on the results of interviews.

Sample of screen lists

Sample of workflows

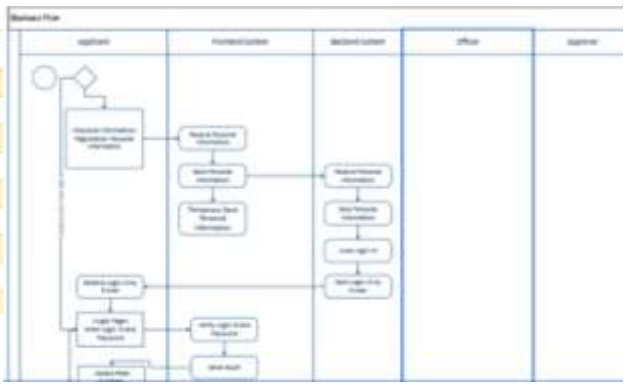


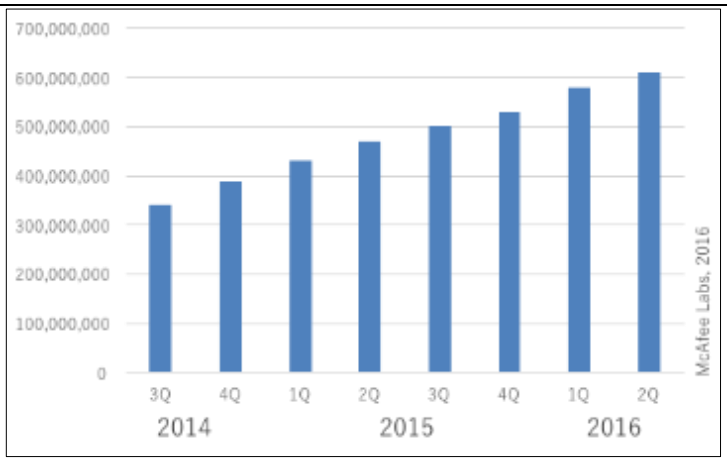
Figure 18 Images of screen lists and workflow diagram

- Issues were extracted based on the above surveys and deliverables, and the current situation and issues were reported as follows in the 1st JCC as follows.

Table 43 Results of the Research

Item	Results of the Research
Overview of the Research	• In Cambodia, IT system for vehicle administration, such as vehicle registration system and vehicle inspection system has been developing under the 100-day mission from April, 2016. The purpose of developing this IT system is to improve civic life, and it is planned to complete development by the end of 2016. • However, there is not much experience in developing such a large-scale IT system in MPWT. It is clarified by the hearing that the specification has not been considered well as priority is given to the release of the IT system. Therefore, there is a possibility of several potential problems. • In JICA's MVRI project which started in June 2016, improvement of systems is set as the main activity. However, at the same time as improving the system under this project, the IT system also needs to be refurbished. • Therefore, we interviewed Cambodian stakeholders about the current situation of the IT system and investigated to the extent possible. Then, we analyzed the survey result and derived the problem point. This report can be summarized from the following viewpoints: ➢ Basic business function ➢ Information security ➢ Utilization of information within the MPWT ➢ Information linkage with the external administrative organization ➢ Information linkage with the private companies ➢ Check processing of vehicle registration system ➢ Non-functional requirements

<table>
<tr><td>Basic information on IT system</td><td colspan="2">
Several IT systems are being developed in the 100-day mission directed by Senior Minister of MPWT from April, 2016. The table below shows the IT systems subject to this investigation.
<table>
<tr><th>System</th><th>Overview</th></tr>
<tr><td>Vehicle registration system</td><td>The system to manage vehicle registration information and sell the specified plate number. There are functions for realizing the following main tasks:
Register information of new vehicle
Transfer the ownership of registered vehicle
Change the information of registered vehicle
Sell specified plate number
View the statistics data of registered vehicle
Confirm the applied data.</td></tr>
<tr><td>Vehicle inspection system</td><td>The system to manage the information of vehicle inspection. There are functions for realizing the following main tasks:
Manage vehicle inspection information
Link information with other IT systems</td></tr>
</table>
</td></tr>
<tr><td rowspan="3">Basic Business Functions</td><td>Overview</td><td>In general, each IT system has basic functions (hereinafter referred to as the “basic business function”) to carry out each task.
The system is realized by IT system and operation work. Since the operation work is manual, it is important that the administrative system is automated as much as possible by the IT system by expanding basic business functions in order to improve efficiency and reduce mistakes.</td></tr>
<tr><td>Actual Situation</td><td>For vehicle registration system, the function that are usable in the previous systems can be used in the new system and some functions that are not implemented in the previous system, such as deregistration are also available in the new system.</td></tr>
<tr><td>Anticipated Issues</td><td>One of the goals of this project is to improve the administrative system of vehicle registration and vehicle inspection. After the improvement of administrative system, it is needed to compare it with the function of IT system to find out the necessary element.</td></tr>
<tr><td rowspan="2">Information Security</td><td>Overview</td><td>Currently, many applications can be done online through IT system all over the world. However, threats related to information security are on the rise.
Below chart is a graphical representation of the types of malware registered in database of McAfee, the information security vendor. It has increased by nearly 100% in the last three years.</td></tr>
</table>



Growth in the world of malware samples

- While the convenience of the Internet is being improved, the threat surrounding the IT system is also increasing. IT systems are exposed to a great variety of information security risks, but when classifying risks and looking at the incidence of occurrence, they are often biased towards the main ones.
-
- The table below shows a list of the major information security risk. These vulnerabilities are listed up by OWASP, non-profit organization dedicated to providing unbiased, practical information about application security. These errors occur frequently in web applications. They are dangerous because they will frequently allow attackers to completely take over the software, steal data, or prevent the software from working at all.

• Vulnerability	• Overview
Injection	• Injection flaws, such as SQL, OS, and LDAP injection occur when untrusted data is sent to an interpreter as part of a command or query. The attacker's hostile data can trick the interpreter into executing unintended commands or accessing data without proper authorization.
Broken Authentication and Session Management	• Application functions related to authentication and session management are often not implemented correctly, allowing attackers to compromise passwords, keys, or session tokens, or to exploit other implementation flaws to assume other users' identities.
Cross-site Scripting (XSS)	• XSS flaws occur whenever an application takes untrusted data and sends it to a web browser without proper validation or escaping. XSS allows attackers to execute scripts in the victim's browser which can hijack user sessions, deface web sites, or redirect the user to malicious sites.

		Insecure Direct Object References	•	A direct object reference occurs when a developer exposes a reference to an internal implementation object, such as a file, directory, or database key. Without an access control check or other protection, attackers can manipulate these references to access unauthorized data.se
		Security Misconfiguration	•	Good security requires having a secure configuration defined and deployed for the application, frameworks, application server, web server, database server, and platform. Secure settings should be defined, implemented, and maintained, as defaults are often insecure. Additionally, software should be kept up to date.
		Sensitive Data Exposure	•	Many web applications do not properly protect sensitive data, such as credit cards, tax IDs, and authentication credentials. Attackers may steal or modify such weakly protected data to conduct credit card fraud, identity theft, or other crimes. Sensitive data deserves extra protection such as encryption at rest or in transit, as well as special precautions when exchanged with the browser.
		Missing Function Level Access Control	•	Most web applications verify function level access rights before making that functionality visible in the UI. However, applications need to perform the same access control checks on the server when each function is accessed. If requests are not verified, attackers will be able to forge requests in order to access functionality without proper authorization.
		Cross-Site Request Forgery (CSRF)	•	A CSRF attack forces a logged-on victim's browser to send a forged HTTP request, including the victim's session cookie and any other automatically included authentication information, to a vulnerable web application. This allows the attacker to force the victim's browser to generate requests the vulnerable application thinks are legitimate requests from the victim.
		Using Components with Known Vulnerabilities	•	Components, such as libraries, frameworks, and other software modules, almost always run with full privileges. If a vulnerable component is exploited, such an attack can facilitate serious data loss or server takeover. Applications using components with known vulnerabilities may undermine application defenses and enable a range of possible attacks and impacts.
		Un-validated Redirects and Forwards	•	Web applications frequently redirect and forward users to other pages and websites, and use untrusted data to determine the destination pages. Without proper validation, attackers can redirect victims to phishing or malware sites, or use forwards to access unauthorized pages.

<table>
<tr><td></td><td>Reference case</td><td>

In the information society, personal information has a great deal of value. For that reason, cyber-attacks targeting large online systems have been reported all over the world.
The table below shows the leaking of personal information reported recent years.

Major Security Accidents
<table>
<tr><th>years</th><th>cases</th></tr>
<tr><td>2013</td><td>150 million user name and password had leaked out because of illegal access of source code at major software company in US.</td></tr>
<tr><td>2014</td><td>More than 100 million credit card information and bank account information has leaked out in Korea.</td></tr>
<tr><td>2015</td><td>4 million personnel information for federal workers had leaked out in US.</td></tr>
<tr><td>2016</td><td>More than 500 million personal information had leaked out at major technology company of US.</td></tr>
</table>
</td></tr>
<tr><td></td><td>Actual Situation</td><td>

The IT system covered by this research stores many personal information, so measures against cyber-attacks are very important, but it seems that concrete examination has not been done.

</td></tr>
<tr><td></td><td>Anticipated Issues</td><td>

As mentioned above, in order to protect personal information from the increasing threat of information security in recent years, information security measures become important. First of all, it is necessary to identify the vulnerability from the viewpoint of experts, and to talk about countermeasures to the current IT system.

</td></tr>
<tr><td>Utilization of Vehicle Registration Information in MPWT</td><td>Overview</td><td>

Vehicle registration information can be useful to various activities within MPWT. The information is not used only for vehicle management, but it can also be essential statistical information for policy planning, if handled and stored appropriately.

</td></tr>
<tr><td></td><td>Reference case</td><td>

In Japan, vehicle registration information is appropriately shaped as statistical information, and it is provided and utilized in various sections or organization.

</td></tr>
<tr><td></td><td>Actual Situation</td><td>

Currently, to grasp the current situation concerning traffic, some organization such as the road safety section and infrastructure development section obtain statistical reports on vehicle registration information and use it for their missions. However, IT system cannot output the information efficiently.

</td></tr>
<tr><td></td><td>Anticipated Issues</td><td>

In Cambodia, vehicle registration information has already been used in some sections within the MPWT. However, there are not many cases that can be grasped at the time. In order to solve social problems in Cambodia and to make operations more efficient, it is necessary to have further study to figure out what kind of utilization should be prepared in the future.
To increase the ways of utilization, it is necessary to improve the IT system, so that it can output data efficiently.

</td></tr>
</table>

<table>
<tr><td rowspan="4">Information Linkage with External Administrative Organizations</td><td>Overview</td><td>• Information on vehicles is not only used for vehicle management, but by sharing with various administrative organizations mutually, the linkage of the information produces greater effect and can solves some social problems.
• In order to work well with external government agencies, it is necessary to maintain accuracy of vehicle registration information. Furthermore, in addition to properly sharing the problem consciousness with external administrative organizations, it is important to consider interfaces which enable cooperation between the systems.</td></tr>
<tr><td>Reference case</td><td>• In Japan, vehicle registration information has been shared with various external administrative agencies. The following table shows example of utilization in Japan.

Utilization of vehicle registration information in Japan
<table><tr><th>Cooperated agency</th><th>Example</th></tr><tr><td>Police Agency</td><td>Vehicle registration system receives some information such as vehicle theft and delinquency payment from police agency. The received information is matched with registered vehicles and the vehicle registration system issues a warning when the application of the vehicle is going to be done.</td></tr><tr><td>National Tax Agency</td><td>According to the Automobile Recycling Law, if a permanent deletion application and a vehicle weight tax refund application is made, after the end-of-life vehicle is properly dismantled, the message will be hand over to the NTA from vehicle registration system automatically. Soon after NTA receive the message, the refundable tax will be transferred to the owner of the vehicle.</td></tr><tr><td>Vehicle Inspection Center</td><td>Vehicle registration system receives inspection information recorded in real time from vehicle inspection system to increase efficiency.</td></tr><tr><td>Local Tax Office</td><td>Vehicle registration system provide vehicle registration information to local governments online. The information is utilized to manage the information of tax payer.</td></tr></table></td></tr>
<tr><td>Actual situation</td><td>The table below shows the case of utilization of vehicle registration information in the present Cambodia.

Examples of information linkage of vehicle registration system
<table><tr><th>Utilization agency</th><th>Example</th></tr><tr><td>Police</td><td>When the license plate number input to the mobile terminal of the police officer, information of the owner and the vehicle is displayed. From the information, the police officer can confirm that the vehicle is not illegal.</td></tr></table></td></tr>
<tr><td>Anticipated Issues</td><td>• Currently, it is presumed that there is not much information collaboration with external administrative agencies. In order to thoroughly enforce the law or improve the efficiency of each organization, it is necessary to share the problem awareness and cooperate with each other so that the information can be linked.</td></tr>
</table>

<table>
<tr><td rowspan="3">Information Linkage with Private Companies</td><td>Overview</td><td>• It is important to lead to the development of new services and to innovate industries by utilizing enormous and diverse vehicle related information. By utilizing vehicle related information, effects such as creation of new value added, revitalization of the economy, and elimination of social issues can be expected.</td></tr>
<tr><td>Reference case</td><td>• In Japan, the vehicle registration system is connected with various private institutions. For example, it is rare for purchasers or owners of vehicles to apply for vehicle registration by themselves in Japan. An agent such as a dealer or an administrative scrivener performs it instead. Therefore, the burden on the agent is great. Based on this background, a part of the application interface of the vehicle registration system has been opened to agents who apply for mass applications in Japan. By using this application interface, the agent can apply lot efficiently.
• Following table shows the example of utilization of information which is performed by the private sector.

Example of utilization of vehicle registration information in Japan
<table><tr><th>Utilization agency</th><th>example</th></tr><tr><td>Mass applicants such as vehicle dealers and administrative scrivener</td><td>Vehicle registration system has opened the application interface and can receive application from a mass applicant who established its own application system.</td></tr><tr><td>Vehicle manufacturer</td><td>Vehicle registration system receives recall vehicle information from vehicle manufacturers. The system shows a warning when a vehicle not compatible with recall is applied.</td></tr><tr><td>Vehicle manufacturer</td><td>Vehicle registration system receives specification information of each types of vehicle from manufacturer by online. Because of this information, the officer does not need to input the data manually.</td></tr><tr><td>Vehicle manufacturer</td><td>Vehicle registration system receive a certificate of the new manufactured vehicle from the manufacturer. This certificate is issued to vehicles that have been inspected by vehicle manufacturers. Because of this certificate, owner of a vehicle is not need to bring a vehicle to the inspection center at the time of new registration, and the burden on the owner and the inspection center can be reduced.</td></tr><tr><td>Insurance Company</td><td>Vehicle registration system receive electronic information of automobile damages liability insurance from insurance company. The applicant is required to present a document certifying the participation of the insurance at the time of application, but if the electronic information is already registered, it can be omitted.</td></tr></table></td></tr>
<tr><td></td><td>Actual situation</td><td>• We investigated the cooperation situation of vehicle registration information with private companies in Cambodia. Several studies seem to be done at present but implementation of the IT system is not started at the time.</td></tr>
</table>

	Anticipated issues	• In Cambodia, vehicle registration information is not fully utilized to some activities such as commercial area surveys or vehicle dealer marketing. From the viewpoint of coping with social problems and sustainable growth of the economy through demand arousing by providing new added value, it is necessary to consider a mechanism that can provide vehicle information to third party organizations. • Also, in the future, if the case that a number of applies by agent such as a vehicle dealer increase significantly, there is a possibility that their daily work may be hindered. In order to prepare for such a situation, it may be necessary to consider development of an application interface for people who apply for mass applications. By developing the application interface and opening it for the general public, it is expected that the secondary effects such as (1) prevention of bribery by administrative officials, (2) stimulation of private vigor, and (3) increase of revenue by collection of usage fee.
Check Processing of Vehicle Registration System	Overview	• It is necessary to accurately store vehicle registration information when utilizing vast and diverse vehicle registration information in various organizations, such as external administrative organizations or private companies, and leading to various activities. It is important that there is no error in the vehicle registration information and the actual use situation of the automobile is accurately reflected. • The main purpose of implementing check processing in the IT system is as follows. 1) Improvement of working efficiency of staff • The system can shorten the processing time of the staff by checking automatically. Also, there is no need for the staff to understand the enormous specifications. 2) Improve database accuracy • Human error can be occurred regardless of how careful it is when checking manually. By using the system, the accuracy of the database can be guaranteed. 3) Reinforcement of administrative system • Reinforce enforcement of the institution by checking against registered information of external system. As an example, for a vehicle registered as a stolen vehicle by the police, a warning is displayed when trying to perform some procedure.

<table>
<tr><td></td><td>Reference case</td><td>
In the Japanese vehicle registration system, the checking of the application content by the IT system plays a very important role. There are over 140 types of checks, 70% of the source code is processing related to some kind of checking. The table below shows an example of a part of check processing to be implemented in the Japanese vehicle registration system.
Check Processing in Japan
<table>
<tr><th>Checking logics</th><th>Contents</th></tr>
<tr><td>Robbery information check</td><td>Check whether or not the applied vehicle is not stolen car. If it is stolen vehicle, officer will give warning to the applicant.</td></tr>
<tr><td>Recall information check</td><td>Check whether or not the applied vehicle has not been recalled. If it is recalled car, officer will give warning to the applicant.</td></tr>
<tr><td>Default information check</td><td>Check whether or not the applicant has not been defaulted. If arrears have detected, officer give warning to the applicant.</td></tr>
<tr><td>Character type check</td><td>Validate character types of application form. If there is error, the application form cannot be accepted.</td></tr>
</table>
</td></tr>
<tr><td></td><td>Actual situation</td><td>Some simple validation such as character type checking is implemented, but checks based on business specifications do not seem to be fully examined at the time.</td></tr>
<tr><td></td><td>Anticipated Issues</td><td>It seems that implementation of check processing is not sufficient at the time. In order to streamline the work of staff members, to make database accurate, and to make effective use of the system, it may be necessary to expand check processing.</td></tr>
</table>

<table>
<tr>
<td>Non-Functional Requirements</td>
<td>Overview</td>
<td>

Since the IT system related to vehicle registration and vehicle inspection has a great influence on the citizen life and socioeconomic activities, it is important to provide services stably. To that end, it is necessary to clarify the requirements and to share the recognition among users and vendors.
There are roughly two demands for IT systems. One is a request relating to the realization of business, which is referred to as "function request" because it indicates the function itself of the task. The other is a request called a “non-functional request” meaning a request other than the "function request", for example, a request such as “I want you to recover within 3 hours when the system goes down.” The requirement imposed on the system infrastructure is mainly this "nonfunctional requirement".
There are various kind of non-functional requirements, but representative ones are shown in the table below.

List of non-functional requirements
<table>
<tr><th>Requirement</th><th>overview</th></tr>
<tr><td>Uptime Ratio</td><td>Percentage of time that the system can provide the requested service under specified usage conditions.</td></tr>
<tr><td>Performance Objective</td><td>Response required during online system utilization.</td></tr>
<tr><td>Manual Preparation Level</td><td>Level of operation manual preparation.</td></tr>
<tr><td>Establishment of Test Environment</td><td>This item relates to the environment that is deployed for the purposes of system testing by the user.</td></tr>
<tr><td>Operation Hours</td><td>Hours during which system operates.</td></tr>
<tr><td>Operation Monitoring</td><td>This item concerns monitoring of entire systems, as well as the hardware and software that make them up (including business applications).</td></tr>
<tr><td>Recovery Objective</td><td>Objectives for what should be recovered, to which point, within how much time when a failure results in business outage.</td></tr>
</table>
</td>
</tr>
</table>

<table>
<tr>
<td></td>
<td>Reference case</td>
<td>

In "Information-technology Promotion Agency" which is an independent administrative corporation in Japan, systems are classified into three systems, and non-functional requirements are defined for each system. In this survey, table below lists the non-functional requirements of "systems with a great social influence" (A system that becomes the basis of the people's life and socioeconomic activities, in the event that its function falls or becomes unusable, it will greatly affect the people's lives and social and economic activities).

Non-functional requirements for system with significant social impact
<table>
<tr><th>Requirements</th><th>overview</th></tr>
<tr><td>Uptime Ratio</td><td>Downtime of up to several minutes per year is accepted (99.999% uptime ratio).</td></tr>
<tr><td>Performance Objective</td><td>A performance service level is specified.</td></tr>
<tr><td>Manual Preparation Level</td><td>The creation of a manual which follows user operation center rules is desired.</td></tr>
<tr><td>Establishment of Test Environment</td><td>A testing environment separate from the development environment is prepared.</td></tr>
<tr><td>Operation Hours</td><td>There are no time periods during which the system can be shut down.</td></tr>
<tr><td>Operation Monitoring</td><td>This assumes that there are thresholds set for CPU utilization ratios, swap occurrences, etc., to monitor signs of service level drops and consider system expansion plans and operation schedules.</td></tr>
<tr><td>Recovery Objective</td><td>Since data loss is not acceptable, the system, in principle, must be recovered to the point at which the failure occurred.</td></tr>
</table>

</td>
</tr>
<tr>
<td></td>
<td>Actual situation</td>
<td>

It seems that there was no agreement on non-functional requirement between vendors at the time.

</td>
</tr>
<tr>
<td></td>
<td>Anticipated Issues</td>
<td>

Since there is no discussion about non-functional requirements with the vendor at the time of defining the requirement, there is a possibility that a trouble may appear after starting the service.
Moreover, since the operation phase is long and the influence on socioeconomic activities is greater than in the development phase, it is important to arrange what kind of system to implement and how to implement it.

</td>
</tr>
</table>

Issues and considerations	Summary of Issues	• The following table shows the issues obtained in this survey and possible countermeasures.

Corresponding countermeasures

Issues	Measures
Lack of Basic Business Functions	Extraction of deficiency function by matching IT system with vehicle registration and vehicle inspection registration system
Lack of Consideration of Security	Investigation of vulnerability by information security experts
Lack of Utilization of Information within MPWT	Identify the needs of stakeholders
Lack of Information Linkage with External Administrative Organization	Identify the needs of external administrative organizations Consider a new cooperation method based on consideration on the institutions
Lack of Information Cooperation with Private Companies	Identify the needs of private organizations Consider a new cooperation method based on consideration on the institutions
Lack of Check Processing of Vehicle Registration System	Interview survey to staff Review of missing functions based on consideration on the institutions
Lack of Consideration of Non-functional Requirements	Interview about non-functional requirements to the vendors

- However, regarding the problem of "security", it is necessary to carry out security diagnosis by experts, clarify the problem point and consider countermeasures before starting discussion on the subject. Therefore, while collaborating with the Cambodian side, I would like to conduct security diagnosis ahead of other issues.
- The table below shows the flow of security diagnosis.

Flow of security diagnosis

Contents	Description
Perform Procedures for the Implementation of Diagnosis	Perform administrative procedures necessary for doing diagnosis and construct diagnostic environment.
Understanding Composition of IT System	Conduct hearings on diagnostic objects.
Implementation of Diagnosis	Diagnose accurately and precisely by using tools, manual operation and checking with source code.
Analysis of Problems	Organize the content of the vulnerabilities found and point out concrete problems.
Report Results	Explain the contents of the report and answer the question.

Activity 3-2. Examine the concept, usage, future vision, etc. of the desirable IT system in consultation with the taskforce members.

<Planned Activities>

- After researching the present state, and issues of the vehicle related IT systems in Cambodia, JICA experts will derive solutions to deal with the problems. In addition, the expert will create the concept which is based on the needs of vehicle administration of Cambodia. Although the concept will be created by the experts, it is needed to work together with Cambodian government to gain the understanding of the Cambodian side.

<Actual Activities>

- The concept is formulated based on IT goals in this project as "building a foundation for sustainable development in the government of Cambodia".
  In the project, "sustainability of IT systems" is considered from the two aspects of "stability" and "efficiency". "Stable" means that the frequency of occurrence of failures is low. An IT system with a low probability of causing the failure and an IT system with a mechanism for preventing or minimizing damage can be said to be "stable".
- “Efficient” means that IT system and a way of operation are designed well and consumption of each resource is minimized. In order to run an IT system for a long period of time, running costs are necessary to keep it low.
- In addition, if any works require a lengthy process, the possibility of all sorts of mistakes will increases. Therefore, in order to maintain the sustainability of the IT system, not only "stability" but also "efficiency" is required.

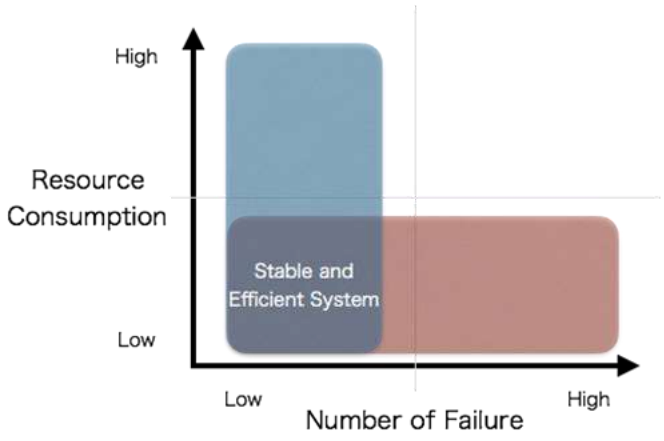


Figure 19 Consideration of the sustainability of the IT system

- As for IT systems, three resources, such as system infrastructure, applications and human resources, are particularly important.
- IT infrastructure refers to data centers, servers and other hardware such as networks, and some software such as operation system and middleware. It is the foundation of an IT system.
  ✧ Application refers to software that directly performs information processing required by a user.

✧Human resources are resources for operating IT infrastructure and applications.

- These three resources interact with each other, and it is necessary to handle them comprehensively in order to operate the IT system stably and efficiently for a long period of time

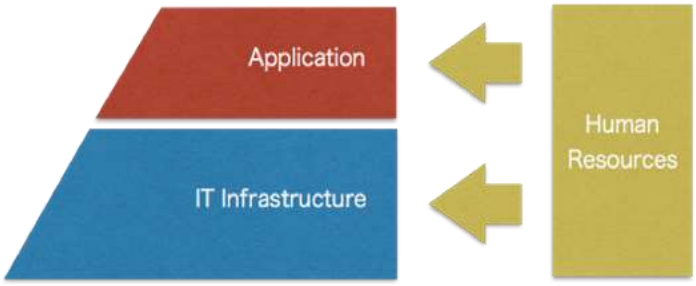


Figure 20 Three resources necessary for operating IT system

- Under this project, it is required to formulate two types of strategies, a long-term strategy and short-term strategy. In the long-term strategy, concepts will be listed to establish basis for achieving sustainable development. In the short-term strategy, the specific measures necessary to realize the concepts listed in the long-term strategy is needed to describe.

Figure 21 relationship between long-term and short-term strategy

Activity 3-3. Prepare the IT short-term strategy

<Planned activities>

- Using the results of previous activities, JICA expert will formulate a draft of a plan for improving the current system. The expert will present multiple plans to improve current issues, instead of proposing just a single one, so that people in charge on the Cambodian side are able to examine and choose the way that is appropriate.
- JICA expert will select the improvement proposals to be implemented in this project as a short-term strategy.
- When selecting the short-term strategies, JICA expert will explain the importance to Cambodian government, and

will consider a way that the government is able to judge whether or not the options are appropriate.

<Actual activities>

- We set the policies for the short-term strategies as follows.
- Development and modification of "vehicle registration system" and "vehicle inspection system" are continuing in MPWT.

  While development is carried out by local vendors, and bug handling and addition of new functions are under their responsibility, MPWT cannot access to the source program. The complete source program is to be delivered to MPWT as soon as all the development is complete, but the timing is unclear.
- Therefore, among the activities prescribed in the short-term IT strategy, we will not include any actions related to directly modifying the source program of the IT systems.
- From the concept, future vision defined in previous activities, we identified the improvement items which is feasible in this project as following figure.

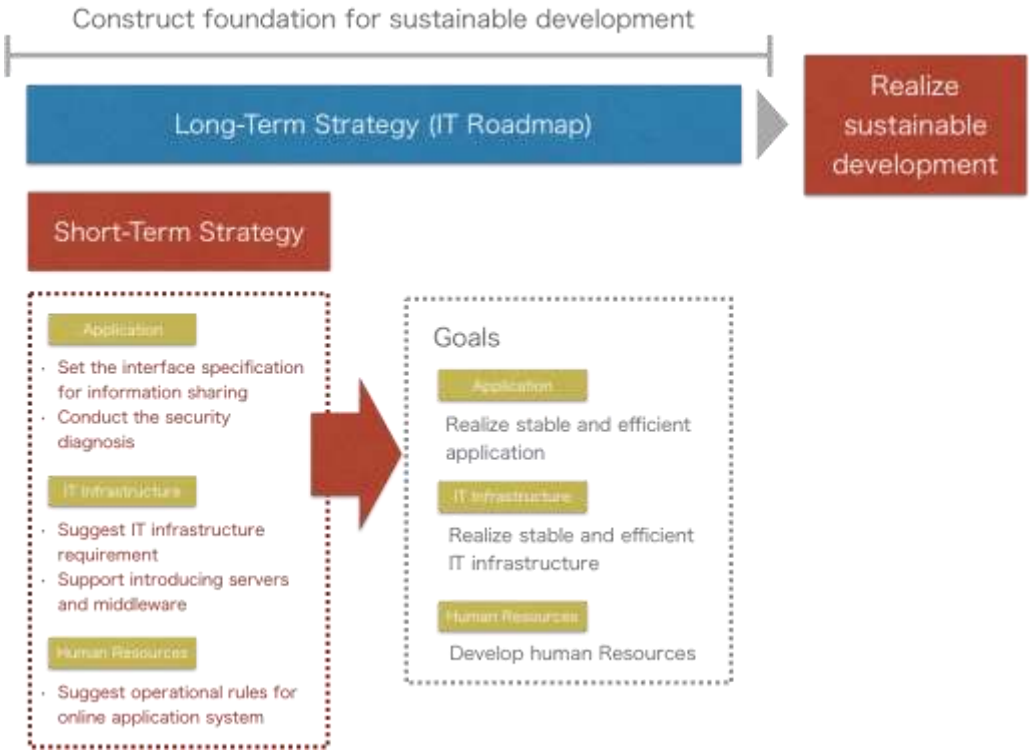


Figure 22 Short term Strategy

- At the beginning of the project, the long-term strategy was planned to be proposed at the 5th JCC, but it is desirable to set the content in line with the short-term strategies, so the outline of the long-term strategy was presented in the 2nd JCC.
- We set the long-term goal of the project: building the foundation to realize the sustainable development of vehicle administration. In Cambodia, improvement of each IT system concerning vehicle is rapidly advanced by

constant effort by many people from ministry, but since these IT systems are very important as social infrastructure and need to continue operation for a long time, it is important to consider from the long-term perspective in parallel with such short-term improvement.

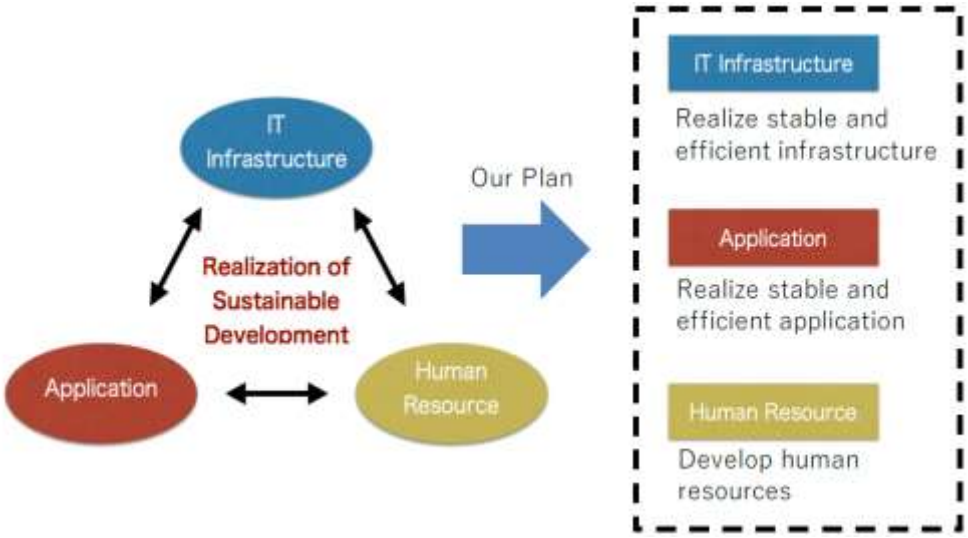


Figure 23 Three factors necessary for the sustainable development of vehicle administration

- The items of the short-term strategies are listing in the table below. They are associated with each item of the long-term strategies. The contents on the short-term strategies will be carried out within the period of this project.

Table 44 The long and short term strategies for three factors

	Long-term strategy	Short-term strategy
Application	Realize stable and efficient application	Set the interface specification for information sharing Conduct the security diagnosis
IT infrastructure	Realize stable and efficient IT infrastructure	Suggest IT infrastructure requirement Reinforcement of IT infrastructure
Human Resources	Develop human resources	Suggest operational rules for online application requirement

- The content of each short-term strategies are as follows.

(a) Set the interface specifications for information sharing with external administrative organizations

- In order to solve the social problem surrounding Cambodia, it is insufficient to consider countermeasures only with MPWT. It is necessary to cooperate with other ministries and agencies as well. We have visited ministries and agencies that are highly relevant to automobile registration such as Department of Traffic Police and Public Order, General Department of Identification, General Department of Customs and Excise, General Department of Taxation. And all these agencies fully recognized the need for information collaboration and

showed a cooperative stance towards our activities.

- In this project, we proposed interface specifications necessary for information collaboration. Specifically, assuming that a new subsystem for information linkage will be constructed, we discussed with the ministries and agencies about methods, entry points, processing contents, request parameters, responses, etc. The interface specification created here is for concrete discussion with each partner institution and it is necessary to confirm the validity of the implementation within the range of the responsibility of the local vendors.

- Since the IT system related to automobile administration is a very important foundation for the society, it is needed to be operated stably and efficiently. Furthermore, it is important to consider the overall image of the IT system including related organizations, when conducting the study.
- Various problems surrounding automobile administration exist not only in Cambodia but also in many countries. We have researched what kind of improvement can be made against those problems from the aspect of IT. Examples of the problems are describing below.
  - ✧ MPWT cannot identify uninspected vehicle from vehicle registration information
  - ✧ MPWT cannot provide vehicle registration and inspection information to MOI smoothly
  - ✧ When vehicle is stolen from registered owner, the owner cannot insist the ownership
  - ✧ The staffs of vehicle dealer cannot operate vehicle registration application smoothly
  - ✧ MOI cannot grasp driver which uses traffic violation vehicle with using vehicle registration information owned by MPWT
  - ✧ MPWT does not share result of vehicle registration with GDCE
  - ✧ MPWT cannot operate information linkage with GDCE smoothly

(b) Conduct the security diagnosis

- In the 1st JCC held in December 2016, after explaining the importance of security, we propose implementation of security diagnosis as an activity in this project and got approval. At that time, provision of source program to the Japanese side was a prerequisite, but source program could not be obtained from a private company developing the system. Also, in the subsequent interview, it turned out that the security diagnosis had already been made. Therefore, we decided not to conduct a new diagnosis as this project.
- However, it turned out that hacking acts to the vehicle inspection system were carried out in 2017. Since the request was made again to JICA, we decide to include the implementation of security diagnosis to the plan. As we receive reply that it is still difficult to obtain source program, we made plan to implement the diagnosis through Internet from Japan. After discussion with MPWT, we decided that only the vehicle registration system is targeted, and application diagnosis and network diagnosis will be carried out. Needless to say, full cooperation from MPWT is indispensable for the implementation, and MPWT tell us that they will help us adjusting a schedule and preparing application / network equipment for diagnosis.

(c) Suggest operational rules for online application system

- The vehicle registration system was released in January 2017. However, inquiries are rushing from registration offices nationwide, and it seems that the General Department of Land Transportation (GDLT) has not secured organizational system that can respond to them. Also, at the same year, Department of Information Technology and Public Relations (IT&PR) was newly established in MPWT, and they oversee all operations related to IT within MPWT. However, knowledge of GDLT is considered indispensable for inquiries concerning vehicle registration and vehicle inspection. Therefore, it is necessary to organize the appropriate organizational structure according to the work and to present operational rules of those organizations.

(d) Suggest IT infrastructure requirements

- Study to construct a new system infrastructure is underway in the MPWT. However, the overall budget plan and the details of necessary equipment have not been considered yet. However, as mentioned above, the system under MPWT is very important as a social infrastructure and high non-functional requirements are required. Therefore, we conduct investigations based on the current plan and propose it after examining system infrastructure requirements with particularly high importance.

(e) Support Introducing Servers and Middleware

- The reform of data center is needed from the perspective of long-term. However, the situation has changed from our recognition, the datacenter is urgently needed before the middle of 2018. Therefore, to support of introducing equipment was added to short-term strategy in 2017.
- The purpose of the reinforcement is to enhance operability and maintainability of the IT system of vehicle registration. Since the IT systems is means for ensuring the feasibility of executing the legal system of vehicle registration, the reinforcement of IT infrastructure contribute to realize efficient vehicle registration. Furthermore, it also helps MPWT to have sufficient IT system which was owned by private company previously.

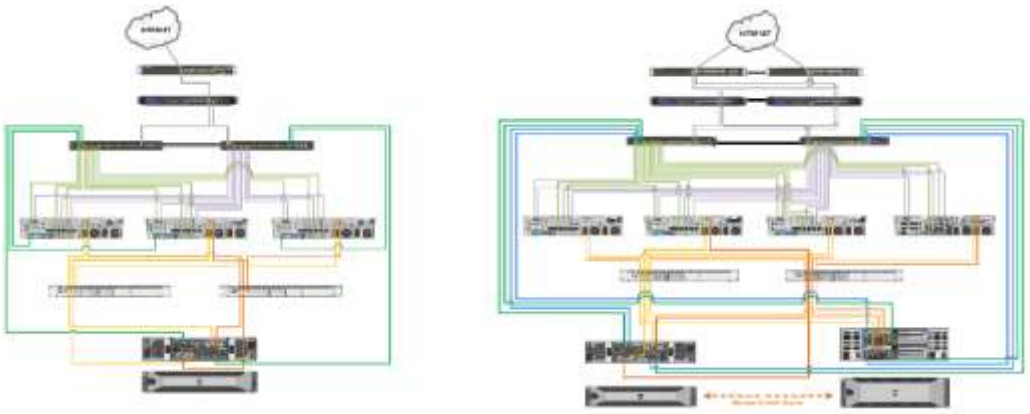


Figure 24 Reinforcement of IT Infrastructure

Activity 3-4. Conduct projects in the IT short-term strategy

<Planned activities>

- JICA expert will design and prepare the items listed in the short-term strategies which is approved in activity 3-3 that are to be implemented in the project.

<Actual activities>

- The result of the five short-term IT strategies is described below.

(a) Short term strategy-1: Set the interface specifications of external administrative organizations

- In this project, we have proposed interface for information cooperation that is needed in vehicle registration system owned by MPWT. The interface described here is for concrete discussion with each partner institution, and it shows the phase, the technical method, and the organization which is desirable for development. MPWT and JICA team had agreed to this and the continuous discussion will be made based on this agreement.
- The table below is showing the types of information utilization that is needed to be realized. The development will be implemented based on classification described in the table.

Table 45 Types of information

No	Classification of Information Utilization		Destination	Description	Classification		
					1	2	3
1	Advancement of Vehicle Registration	Confirmation of stamp duty payment	MoEF (GDTax)	Send various documents required for application to the ministries connected to the network and make inquiries	S	A	C
2		Confirmation of import tax payment	MoEF (GDCE)		S	A	C
3		Confirmation of citizen ID	MoI (ID)		S	A	C
4	Advancement of Information Provision	Sending vehicle registration information	MoEF (GDTax)	Send vehicle registration information possessed by MPWT to the relevant ministries via network	S	A	C
5			MoEF (GDCE)		S	A	C
6			MoI (ID)		S	A	C
7		Providing owner /user information	MoEF (GDTax)		S	B	C [6]
8		Providing deregistration information	MoEF (GDCE)		M	A	J
9		Providing owner /user information	MoI (Police)		M	B	J
10	Advancement of Vehicle Management Administration	Confirmation of vehicle inspection information	MPWT (Section of inspection)	Receive files and use them for policy and efficiency within MPWT	S	A	C
11		Confirm theft, violation information	MoI (Police)		M	B	J
12	Statistics of Vehicle Registration	Providing environmental performance information	MPWT (Section of environmental policy)	Form information that MPWT possesses as statistical information into	M	C	J

[6] Temporary implementation. It is supposed to be replaced during mid-long-term period.

13	Information	Providing safety performance information	MPWT (Section of safety policy)	a form that can be utilized by each organization	M	C	J
14		Providing statistical information for private companies	Private Companies		M	C	J
15		Providing statistical information for general citizens	Citizens		M	C	J
16	Improvement of Application Work Efficiency	Registration application acceptance	Private Companies (Dealer)	Establish an interface for accepting applications and realize efficient application work	M	B	J

Legend for Classification
1: Phase
S Short-Term / M Mid-Long-Term
2: Method of Information Sharing
A Sharing by API connection / B Sharing by batch connection
C Providing download link
3: Organization in Charge of Development
C Developer in Cambodia / J JICA

- To realize these functions, Japanese side are planning to construct IT system "Information Sharing System" as shown in the figure below after the project. Since 2016, development of a vehicle registration system is being carried out by MPWT. This development project is carried out mainly by a single Cambodian company, and when another company adds new functions, there is a high possibility that issues related to quality such as maintainability of the source code will appear. Since the above function can be designed independently from the main part of vehicle registration, we imagine building a new separate system without adding any effort to the currently used vehicle registration system.

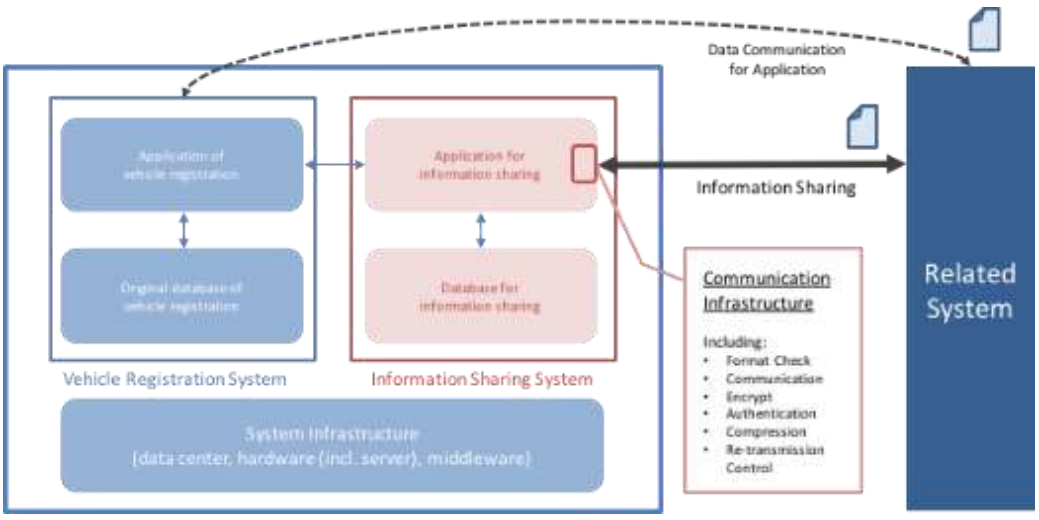


Figure 25 Information sharing system

(b) Short term strategy-2: Conduct the security diagnosis

- The purpose of the diagnosis is to identify potential security problems with the web application being diagnosed under various threat scenarios and to provide advice, based on analyzing the results.
- Web applications are often used with IT systems that manage personal user information, vulnerabilities may lead to private information disclosure. To prevent such events, any potential security problems in these systems must be identified and appropriate measures have to be taken based on the findings. The detail of the security diagnosis for web application is as follows.

[Objective and background of the diagnostic]

- The purpose of the diagnostics is to identify potential security problems with the web application being diagnosed under various threat scenarios and to provide advice, based on analyzing the results, that will help establish a secure system.
- Recent years have featured active discussions of the security of web applications and reports of various security problems. Because web applications are often used in conjunction with systems that manage personal user information, vulnerabilities pose the risk of private information disclosure. The unintended disclosure of such information can damage confidence in the companies and organizations involved and may lead to legal action. To prevent such events, any potential security problems in these systems must be identified and appropriate measures taken based on the findings.

[The result of the security diagnosis for web application]

- Execution Date and Time：The 1st diagnosis was held from January to February 2018. And the 2nd diagnosis was held in June 2018.
- Diagnostics Contents：The diagnostics look for the presence of the problems listed in the table below.

Table 46 Impact Types and Diagnostics Contents

Impact Type	Diagnostics Content
Unauthorized database access	Modify SQL statements issued by the web server and check to see whether illegal instructions can be executed on the database server. [Main diagnostics item: SQL injection]
Unauthorized server system access	Check to determine whether arbitrary OS commands can be executed on the web server or if unauthorized access of private files is possible. [Main diagnostics item: OS command injection]
Risk of effects on users	Check to determine whether illegal processes or operations can be executed via trap links provided by the attackers. [Main diagnostics item: Cross-site scripting]

Session management and authentication problems	Check to determine whether illegal processes or operations can be executed by impersonating a third party. [Main diagnostics item: Session ID handling]
Problems specific to applications	Check to determine whether unintended system operations can be made available to the attackers by tampering with parameters. [Main diagnostics item: Unauthorized use of system involving tampering with parameters]
Security considerations	Check for the presence of any operationally unnecessary files. Confirm that operationally unnecessary server functions are disabled. [Main diagnostics item: Common file extensions]

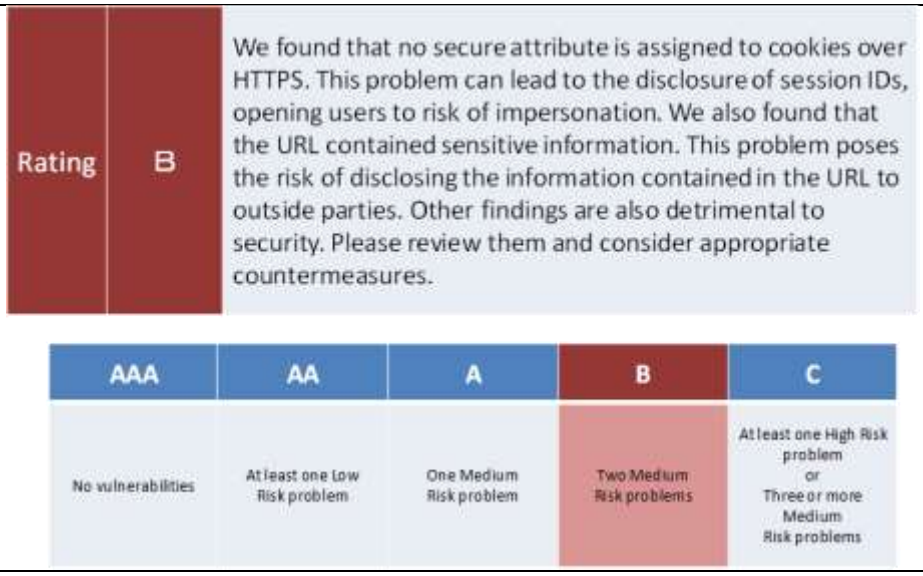
- Risk Definition and Assessment
  - As a result of security diagnosis, two problems at the "Medium" level have been detected that "may be indirectly attacked and used, and a combination of them causes actual harm and requires measures".
  - The overall rating is the "B" rating, which is said to have the second lowest security level among the five levels.

<table>
<tr><th>item</th><th>Description</th></tr>
<tr><td>Risk Levels of Various Problems</td><td>Risk levels are assigned to the problems detected in the diagnostics. One of three risk levels (High, Medium, Low) are assigned based on the scope of potential consequences and repeatability. The criteria are given below.

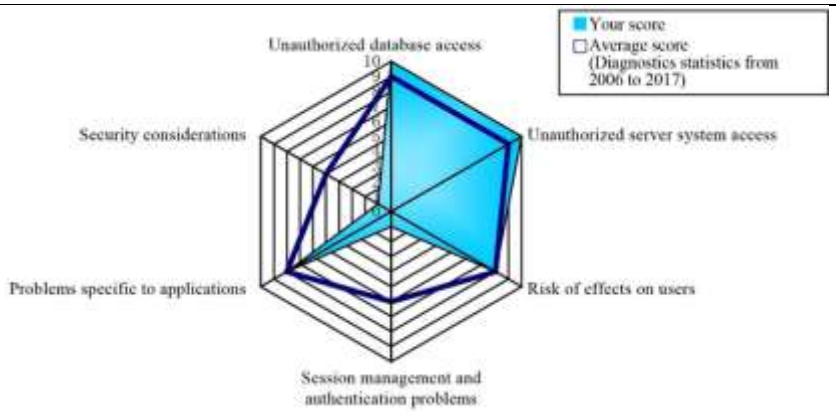
<table>
<tr><td>High</td><td>Problems that may potentially have significant impact on the website and its users and damage confidence in the website; immediate countermeasures required</td></tr>
<tr><td>Medium</td><td>Problems that may be indirectly used in attacks and that may cause actual damage if combined; countermeasures required</td></tr>
<tr><td>Low</td><td>Problems unlikely to cause damage directly but you may safeguard against risks if measures are taken; countermeasures recommended</td></tr>
</table>

Findings not considered to constitute risks but detrimental for security reasons are reported as supplementary notes.</td></tr>
<tr><td>Evaluations Based on Results of Diagnostics</td><td>This report contains an overall evaluation based on diagnostics results. In the overall evaluation, all diagnosed items are considered to collectively constitute a single system. The ratings that correspond to the number of detected problems are as shown below.

<table>
<tr><td>AAA</td><td>No vulnerabilities</td></tr>
<tr><td>AA</td><td>At least one Low Risk problem</td></tr>
<tr><td>A</td><td>One Medium Risk problem</td></tr>
<tr><td>B</td><td>Two Medium Risk problems</td></tr>
<tr><td>C</td><td>At least one High Risk problem or three or more Medium Risk problems</td></tr>
</table>
</td></tr>
</table>

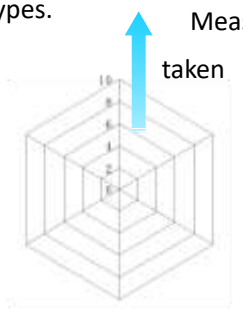
Overall Evaluation	

Website Safety Chart



Scoring method

This chart shows the scores for security measures on specific impact types.



The perfect score for each type is 10. Points are deducted based on the problems detected, as shown below. Scores below 0 are indicated as 0.

High	-8
Medium	-4
Low	-2
Supplementary note:	-1

Impact Type		MPWT Score
I	Unauthorized database access	10
II	Unauthorized server system access	10
III	Risk of effects on users	8
IV	Session management and authentication problems	1
V	Problems specific to applications	8
VI	Security considerations	1

Detected Problems

Detected problems

No	Impact Type	Problem	Risk	Vehicle Plate Number System
1	IV	No secure attribute assigned to cookies over HTTPS	Medium	○
2	IV	The URL contains sensitive information	Medium	○
3	III	Cross-site scripting	Low	○
4	VI	Index browsing	Low	○
5	VI	Disclosure of internal IP address	Low	○
6	IV	No HttpOnly attribute assigned to cookies	Supplementary note	○
7	V	Arbitrary changes can be made in transfer destinations	Supplementary note	○
8	V	Occurrence of internal server errors	Supplementary note	○
9	VI	TRACE method enabled	Supplementary note	○
10	VI	Possible to verify user presence based on responses during registration	Supplementary note	○
11	VI	Sensitive information stored in cache	Supplementary note	○
12	VI	Some content needs to be checked for disclosure settings	Supplementary note	○
13	VI	Unnecessary content viewable	Supplementary note	○

High	0
Medium	2
Low	3

Overall Rating	B

List of Problems	• The list of problems consists of the following columns: (1) Impact • Describes the Impact of the problem detected. (2)Measures • Describes general measures to safeguard against the problem detected. *Countermeasures may differ depending on the specific implementation of the web application. (3)Check Items • Describes the URL and parameters of the web application in which the problem was detected.

[The result of the security diagnosis for platform]

- Execution Date and Time
- Schedule：Monday, 15th, April, 2019 ~ Tuesday, 16, April, 2019
  - Time：10:00 ~ 18:00
- Diagnostics Contents
- The diagnostics look for the presence of the problems listed in the table below.

Table 47Impact Types and Diagnostics Contents

No.	Category	Description
1	Brute Force Attack	To the services with authentications of username and password, investigate the existence of accounts which can be guessed easily and whether the account can be exploited by brute force attack and dictionary attack.
2	CGI	Confirm the existence of CGI files with security hole created when the OS or application installed, and check whether they can be exploited.
3	DNS	Investigate the possibility to obtain the zone information and BIND version due to the bug or improper settings of applications from the connections with DNS.
4	Database	Investigate the possibility to obtain the login information to database services and the bug or improper settings of applications from the connections with database services.
5	FTP	Check the login function and whether the files can be obtained due to the insufficient account management of FTP services, and investigate the bug and improper settings of applications from the connections with FTP services.
6	Finger	Check whether the user accounts can be confirmed or obtained from the connections with Finger services.
7	General remote services	Investigate the bug and improper settings of applications, strength of the encryption, detection of peer-to-peer client, the possibility to obtain the system information from the connections with the services providing remote access (such as TELNET service and SSH service).
8	Network Appliance	Check the bug and improper settings of network appliance, and whether system information can be obtained from the connections with network appliance (such as firewalls).
9	Information gathering	Check the bug and improper settings of applications, and whether system and user account information can be obtained from the connections with information providing services (such as NIS, LDAP, WHOIS).
10	Local	Investigate the existence of security hole and various security settings at the login status.

		- Privilege escalation - Bugs of applications, and update information - Account Information - Obtaining the log information - Improper settings etc.
11	Mail	Check the bug and improper settings of applications, unauthorized mail relaying and whether system and user account information can be obtained from the connections with mail service.
12	NFS	Investigate the bug and improper settings of applications (exploitation of file system), and whether file system information can be obtained from the connections with NFS service.
13	NNTP	Investigate the bug and improper settings of applications, and whether news can be post or get from the connections with NNTP service.
14	Proxy	Investigate the bug and improper settings of applications and check the exploitation from the connections with proxy service.
15	RPC	Investigate the bug and improper settings of applications and check whether system information can be obtained from the connections with RPC service.
16	SMB / NETBIOS	Investigate the bug and improper settings of applications and check whether system information can be obtained from the connections with samba service and NetBIOS service.
17	SNMP	Investigate the bug and improper settings of applications and check whether system information can be obtained or changed from the connections with SNMP service.
18	TCP/IP	Investigate the bug and improper settings of applications and check whether system and account information can be obtained from TCP/IP traffic.
19	Web	Investigate the bug and improper settings of applications and check whether system and account information can be obtained from the HTTP/HTTPS service.
20	Windows	Investigate the existence of security hole related to Microsoft Windows - Obtaining the system/service/driver information - Obtaining the account information - Bugs of applications - Status of patches - Improper settings etc.

[Risk Definition and Assessment]

- The overall rating is the "AA" rating, which is said to have the second highest security level among the five levels.

<table>
<tr><th>item</th><th>Description</th></tr>
<tr><td>Risk Levels of Various Problems</td><td>The vulnerability risk level ("the risk level") assigned in this assessment is classified into three levels, High, Medium and Low, with consideration to the impact and risks of exploitation to the target host. The definitions of the risk level are as follows.

<table>
<tr><td>High</td><td>This level will be assigned for the vulnerability which can cause a significant impact. It is required to take countermeasures immediately.</td></tr>
<tr><td>Medium</td><td>This level will be assigned for the vulnerability which could be used indirectly to exploit the target host vulnerability which leads to real impact. It is required to take countermeasures.</td></tr>
<tr><td>Low</td><td>This level will be assigned for the vulnerability which is less likely to cause an impact. Taking security measures is recommended.</td></tr>
</table></td></tr>
<tr><td>Evaluations Based on Results of Diagnostics</td><td>The overall assessment score of the target host is classified into five levels AAA, AA, A, B, and C. It’s generated by the average of assessment score of an individual host. And the assessment score of an individual host is calculated by the point-deduction scoring system (100-point scale), by which vulnerability risk levels. The definitions of the overall assessment score are as follows.

<table>
<tr><td>AAA</td><td>100-96</td></tr>
<tr><td>AA</td><td>95-86</td></tr>
<tr><td>A</td><td>85-71</td></tr>
<tr><td>B</td><td>70-51</td></tr>
<tr><td>C</td><td>50-0</td></tr>
</table></td></tr>
<tr><td>Overall Evaluation</td><td>
<table>
<tr><td>Score</td><td>A A</td><td>Urgent vulnerability was not detected in this assessment, but we were able to attempt authentication with username and password in HTTP service. If valid credentials are guessed, attacker will use your service illegally. Restricting access appropriately is needed. Add to that, unnecessary contents/functions were detected in HTTP service. Moreover, flaws in encrypted communication have also been detected. It is recommended to take countermeasures based on this report.
(Overall score: 93.5)</td></tr>
</table></td></tr>
</table>

Detected Problems	Detected problems					
	No.	Name	Risk	Count	1 Front-end System	2 Back-end System
	1	Web Contents with Username/Password Authentication	Medium	1	o	
	2	Web Server TRACE/TRACK Method Enabled	Low	1		o
	3	Web Directories Listable Vulnerability	Low	2	o	o
	4	Existence of Unnecessary Files on HTTP Service	Low	2	o	o
	5	TLS 1.0 is valid in the SSL/TLS protocol	Low	2	o	o
	6	Weak RC4 cipher in SSL/TLS	Low	1		o
	7	SSL 64-bit Block Size Cipher Suites Supported (SWEET32)	Low	1		o

(c) Short term strategy-3: Suggestion of operational rules for online application system

- Although the new vehicle registration system was released in January 2017, inquiries are rushing from registration offices nationwide, and it seems that the General Department of Land Transport (GDLT) has not secured organizational system that can respond to them. Additionally, Department of Information Technology and Public Relations (IT&PR) was newly established in MPWT in the same year, and they oversee all operations related to IT within MPWT. However, knowledge of GDLT is considered indispensable for inquiries concerning vehicle registration and vehicle inspection. Therefore, it is necessary to organize the appropriate organizational structure according to the work and to present operational rules of those organizations. In view of the above, we have created operational rules.

(d) Short term strategy-4: Suggest IT Infrastructure requirements

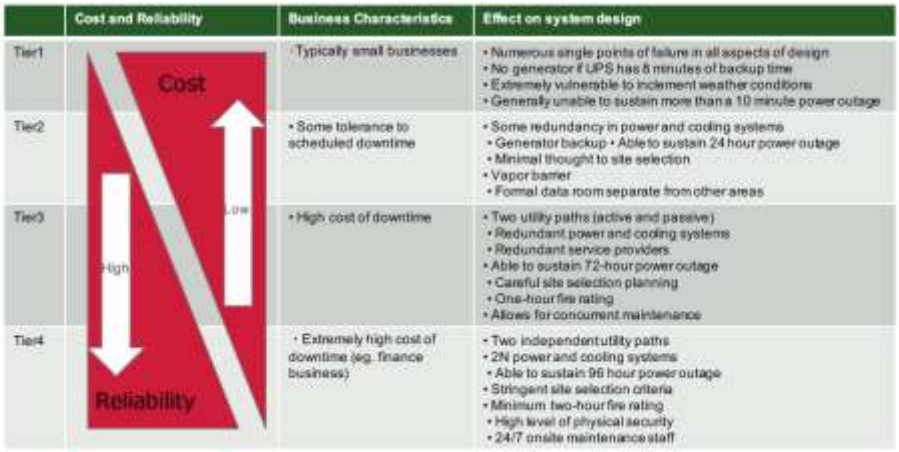
- In order to satisfy the public and provide a higher level of public service, the system infrastructure needs to have at least a certain level of reliability. TIA 942-A, which is widely published as a data center standard, is classified into four tiers from Tier 1 to Tier 4.
- Tier 2 does not require simultaneous maintainability (Allows for concurrent maintenance; provision of a bypass circuit required for electrical equipment maintenance work, etc.) and is a level that allows planned

downtime to some extent, like this system. Tier 3 level is considered appropriate for public services at the national level.

- In addition, the Tier 3 or higher base environment will reduce the impact of remodeling and increase the ease of responding to future scale-up and new technology introduction.
- The detailed requirement and the issues to be solved are as follows.

Table 48 IT infrastructure requirement and the issues to be solved

Item		Description
Current situation	Data center infrastructure	Since the new building constructed in the MPWT is not designed exclusively to meet the needs for a data center, the following points may become problems, Scalability(both space and cooling capacity) Physical security of server room Energy efficiency In addition, because measures against floods and earthquake disasters are not taken into account and the design standards of the redundant configuration of the data center facility are not clarified, continuity of data center operation at the time of occurrence of natural disaster and equipment failure and continuity of power supply to data center equipment at the time of power outage may become problems.
	Monitoring operation	Data center monitoring is planned to be done on-site and remotely. However, remote monitoring system is not part of the current plan and therefore, the data center management is most likely to be conducted on-site which will make it difficult to realize efficient operation.
	Existing IT system	The existing system is operated with two patterns; (1) on-premise and (2) public cloud(AWS). However, according to the policy of the province, after completion of the MPWT new building, all system will be on-premise.
	Comparison of possible solution	Vehicle management information handled by the IT system is considered to be extremely important. It will cause extensive damage with profound effect on society when the function of the system stops or the data is lost. Therefore, a high level is required for the IT infrastructure. It can be referred to Tier 3 level defined by TIA 942-A, which is an indicator for data center facilities.
	TIA942-A	

<table>
<tr><td></td><td colspan="2"> 
</td></tr>
<tr><td>Ideal form of IT infrastructure</td><td colspan="2">Based on the present situation and the above discussion, we consider container-type data center with the following characteristics to be the better choice for the future IT infrastructure
Flexible extensibility
Secure quality independed</td></tr>
<tr><td></td><td>Requirement of IT infrastructure</td><td><u>Has flexible scalability</u>
・ By using container-type data center which is designed and constructed beforehand in Japan to minimize the work on the site, it realized reduction of the construction period which normally takes more than one year while maintaining quality. The shortened construction period makes it possible to extend the facility system flexibly according to demand.
・ In addition, since it is a modular connection structure, introduction of the latest technology can be easily realized on a module basis to prevent obsolescence of the facility.</td></tr>
<tr><td></td><td>Has excellent energy efficiency</td><td>・ This container-type data center adopts a system that takes the outside air indirectly and exhausts the heat using heat exchanger to cool IT equipment. If the temperature of the outside air is low, it is cooled using the heat exchanger and a fan, and when the temperature is high, the compressor turns on. Compared to conventional air conditioning, it is possible to minimize the time to operate a compressor therefore realize high energy saving.
・ Also, not only can this container-type data center be placed in places with high temperature, low temperature and humid places, since it uses indirect outside air cooling technology, the IT cabinet will not be affected by outside air quality, thus, it efficiently at the same time.
・ By using the above-described method for the data center module, the amount of electricity used can be reduced. A simulation based on the climate of Cambodia’s capital Phnom Penh resulted in about 30% reduction in power consumption compared with data</td></tr>
</table>

<table>
<tr><td></td><td></td><td>center using general air conditioning.</td></tr>
<tr><td></td><td>Require only a small number of operational personnel</td><td>• Fully automated remote facility management is equipped.
• System monitoring are realized by using management functions that can operate components in the module in a centralized manner onsite and in remote locations. As a result, even if it is difficult to secure facility and system technician in the field, the latest facility and system construction are possible. Remote monitoring will also provide efficiency to the data center management by minimizing the need for on-site operation/maintenance. It will also minimize the need for an on-site maintenance engineer for 24/7.</td></tr>
<tr><td></td><td>Able to respond to various network requirements</td><td>• In the container-type data center, it is logically and physically possible to construct a flexible network for each role of the system and for each user.</td></tr>
<tr><td></td><td>Enable efficient server resource allocation</td><td>• Since virtualization technology shares the physical servers and runs various systems and services, it is possible to improve the utilization of the physical server and reduce the number of physical servers involved in the end. This makes it possible to reduce the power consumption and the cooling load.
• By adopting virtualization technology that enables effective utilization of hardware resources, it becomes possible to prepare a base that can be expanded flexibly according to the development of the country.</td></tr>
<tr><td>Idea of desired IT infrastructure</td><td colspan="2">We believe that it is desirable to introduce a predesigned facility system to realize early and easy construction. The data center plan that can be considered as future expansion is shown below.

<table>
<tr><th>Item</th><th>Spec</th></tr>
<tr><td>Number of modules</td><td>4</td></tr>
<tr><td>Ground area</td><td>11m×22m</td></tr>
<tr><td>Number of cooling block</td><td>40kw×3(N+1)</td></tr>
<tr><td>UPS</td><td>UPS Module(10minutes window)</td></tr>
<tr><td>Generator</td><td>250Kva × 1 (24hrs)</td></tr>
<tr><td>Busway</td><td>1</td></tr>
<tr><td>PDU</td><td>8PDU</td></tr>
<tr><td>Fire Suppression</td><td>Fire exitinguisher, fire detection, N2 Gas suppression</td></tr>
<tr><td>Security</td><td>CCTV, Access control, Fence</td></tr>
</table></td></tr>
</table>

(e) Short term strategy-5: Support introducing Servers and Middleware

- The infrastructure requirements to be introduced were proposed and approved in the 3rd JCC, but after that there was a concern that C/P could not secure the resources (land) to be prepared, so a feasibility study was conducted again.
- As a result of hearing to MPWT, it was turned out that the space of the 5th floor and the 1st floor of the new government building can be used. Comparing these two plans in detail, it was found that introducing a container type data center on the first floor was desirable in terms of scalability, maintainability, operability, introduction speed, etc. In January 2018, we explained the MPWT this plan and received approval.
- Hardware equipment procurement was decided to start according to the following schedule.

  - Distribution of Bidding Document： February 19th, 2018
  - Deadline of Question： February 28th, 2018
  - Expected Answer： March 2nd, 2018
  - Submission of Technical bid: March 12th, 2018 at 2:00pm
  - Bidding： March 19th, 2018 at 2:30pm
  - Expected Contract Agreement： March 22nd, 2018
  - Expected Delivery Date： May 31st, 2018

- After the operator was decided by the procurement procedure in JICA, we conducted inspection on server and middleware introduction
- On May 31st, 2018, inspection was conducted for hardware delivery equipment, but some equipment such as racks, cooling devices, free access floors, and UPS had not been delivered. As for the access point, although the installation was completed, the test was not completed in the end of June 2018 due to the absence of the person in charge of MPWT.
- Due to troubles with Schneider Electric, a vendor, among racks, cooling devices, free access floors, and UPSs that had delivery delays, as of August 2018, only unaccessed floors were free access floors.
- After that, although it took more time than planned due to problems with Schneider Electric, which is a vendor, and the need to temporarily shut down server managed by MPWT when installing devices, the inspection was conducted on September 17th, 2018, and it was confirmed that all equipment installation and continuity check were completed.

Table 49List of the provided equipment

No.	Category	Summary	Item	Requirements	Qty.
1	Vehicle related administration IT system	Server & Storage	Server	The specifications should be equivalent to those of the followings: -2 x Intel® Xeon® Gold 6136 3.0G,12C/24T -8 x 32 GB RDIMM, 2666 MT/s, Dual Rank -2 x 16GB SD Card For IDSDM (Vmware Esxi OS) -2 x 120GB SSD SATA Boot 6Gbps 512n 2.5in Hot-plug Drive,3.5in HYB CARR -No Controller -14G OpenManage placemat -iDRAC Group Manager, Enabled -iDRAC, Unique Random Password -Broadcom 57416 2 Port 10Gb Base-T + 5720 2 Port 1Gb Base-T, rNDC -Broadcom 57416 Dual Port 10Gb, Base-T, PCIe Adapter, Full Height -Emulex LPe31002-M6-D Dual Port 16Gb Fiber Channel HBA -Dual, Hot-plug, Redundant Power Supply (1+1), 750W -3Yr ProSupport: Next Business Day Service -Warranty: 3 year	1
			Storage	The specifications should be equivalent to those of the followings: -24 x SC Enterprise Plus, 1.8TB, SAS, 12Gb, 10K, 2.5", HD -6 x SCAFA, 1.92TB, SAS, 12Gb, RI SSD, 2.5" -2 x 12Gb HD-Mini to HD-Mini SAS cable, 0.5m -SC, RJ45, 4-port, Mezz Card, Qty 2 -IO, 16Gb FC, 2Port, PCI-E, Full height, QTY 2 -Storage Optimization Bundle, Software License -Storage Center Core Software Bundle, Base License -Storage Center Drive License -Storage Protection Bundle, Software License -3Yr ProSupport for Software: Storage Protection Bundle License -3Yr ProSupport for Software: Storage Optimization Bundle License -Warranty: 3 year	1
		Security & Networking	Security equipment	The specifications should be equivalent to those of the followings: -High availability firewall -Warranty: Not specified	1
			Network equipment	The specifications should be equivalent to those of the followings: -24x1GbE, 2xCombo, 2x10GbE SFP+ fixed ports -Power Supply, 200w, Hot Swap, with V-Lock, adds redundancy to non-POE N3000 -Lifetime Limited Dell Standard Technical Support-VN,PK,PH,BN,SL,BD -Dell Networking, Stacking 1m	1

				-Warranty: Not specified	
		UPS	UPS	The specifications should be equivalent to those of the followings: -10000VA 230V -Warranty: Not specified	1
		Rack	Rack	The specifications should be equivalent to those of the followings: -42U 600mm Wide x 1070mm -Including followings: -2 x Rack PDU -Panel Kit -Blanking Panel -Temperature Sensor -Temperature & Humidity Sensor -Security Camera -Security Sensor -Smoke Sensor -Leak Rope Sensor -Leak Rope Extension -Warranty: Not specified	1
		Accessories	LAN cable	The specifications should be equivalent to those of the followings: -Including followings: -20 x LAN cable(Cat6A) -20 x LAN cable(Cat6) -5 x Horizontal Cable Management -Warranty: No	1
		Room & Cooling	Uniflair Access Floor	The specifications should be equivalent to those of the followings: -56sqm(7x8), 500mm FHH, 40L -Warranty: Not specified	56
			Air Cooled Condensers	The specifications should be equivalent to those of the followings: -Including followings: -300mm, Air Cooled, 220-240V, 50Hz -Condenser 1 Fan, Single Circuit, 1.2MBH /1C TD, 400/3/50 FSC -Isolation Valve Assemblies, 1/2" ODF -Warranty: Not specified	1
		Software	VMware License	The specifications should be equivalent to those of the followings: -Including followings: -2 x VMware vSphere 6.x with Operations Management Enterprise Plus for 1 processor -2 x VMware NSX Advanced per Processor -Warranty: 3 year	1

		Service Implementation	Service Implementation	The specifications should be equivalent to those of the followings: -Including followings: -Equipment Installation -Start-up configuration (Server, Storage, Networking & Security and VMware)	1
2	Campus Network	Network equipment	Core Switch	The specifications should be equivalent to those of the followings:-2 x Route Processor Module (RPM) for C9010-4 x Power Supply, C9010, 2900w, requires C19 power cord-2 x Line Card, 24x 10GbE SFP+ ports, for C9010 network director-2 x Line Card, 24x 10GBASE-T RJ45 ports, for C9010 network director-4 x 10GbE, SFP+ to SFP+, passive DAC 7m-12 x Transceiver, SFP+, 10GbE, LR, 1310nmWavelength, 10km Reach-3Yr Rapid Parts Exchange Service - SADMG-Included 90 Days Software Support-Warranty: 3 year	1
			PoE Switch	The specifications should be equivalent to those of the followings: -48x RJ45 10/100/1000Mb PoE+ (up to 30.8W) autosensing ports, 2x SFP+ ports, 2x stacking ports, 1 integrated 1000W PSU -C15 to NEMA 5-15, 2M (C15 for POE N-Series only) -Stacking Cable, for Dell Networking N2000/N3000/S3100 series switches (no cross series stack), 1m -2 x Transceiver, SFP+, 10GbE, LR, 1310nmWavelength, 10km Reach -Warranty: Not specified	20
			Wireless Access Point	The specifications should be equivalent to those of the followings: -Including followings: -Licenses -20 x Access Point devices -Upgrades for 1 license for 1 device -Warranty: Not specified	1
		KVM Switch	KVM Switch	The specifications should be equivalent to those of the followings: -Including followings: -KVM console module that serves as the front-end for standard KVM switches -Warranty: Not specified	1
		Rack	Rack	The specifications should be equivalent to those of the followings: -42U 600mm Wide x 1070mm -Including followings: -Vertical Cable Organizer -Panel Kit -Blanking Panel -Cabinet -Warranty: Not specified	1

		Power	Power	The specifications should be equivalent to those of the followings: -6000VA 230V -Including followings: -2 x Rack PDU -Temperature Sensor -Temperature & Humidity Sensor -Warranty: Not specified	2
		Accessories	LAN cable	The specifications should be equivalent to those of the followings: -Including followings: -100 x LAN cable(Cat6A) -100 x LAN cable(Cat6) -12 x Port Patch Panel -12 x Horizontal Cable Management -20 x Cat6 UTP solid cable -Cat6 UTP modular plugs Connector -5 x Cable tester -5 x Crimping Tool -5 x Insert Tool -6 x Optical Distribution Frame -12 x LC UPC adapter -100 x Single Mode Fiber Patch Cable -Warranty: No	1
		Service Implementation	Service Implementation	The specifications should be equivalent to those of the followings: -Equipment Installation -Start-up configuration (Networking & Security and Wireless)	1

Delivered Server	Delivered Server （Equipment with Japanese flag and JICA seal attached is procured equipment）
	

Figure 26 Pictures of delivered server

Activity 3-5. Propose the roadmap for the IT System.

<Planned activity>

- Following the result of activity 3-2, and 3-4, JICA expert will create the plans for reorganizing Cambodia's vehicle registration and vehicle inspection systems from the perspective of future vision and put them together into a proposal of a roadmap.

After creating the roadmap, JICA expert will propose it to the JCC, and obtain the approval.

<Actual activity>

- We organized the roadmap based on the three elements of Application, System infrastructure, and Human resources shown in the concept of the IT system created in activity 3-2.
- As it is necessary to consider along the long-term strategy when formulating the short-term strategy, we have already pointed out the direction of the long-term efforts in Task 3-3, and in this activity, we further refined them.
- The 1st version of roadmap was proposed in the 4th JCC at first, and the final version was proposed in the 5th JCC held in December 2018, and was approved.
- In order to meet the "approval from MPWT", the roadmap is scheduled to be posted in the annual report of MPWT scheduled to be published in 2020.
- The below figures shows the basic flow for securing the accuracy of vehicle registration information.
- In Cambodia, although new registration made by dealers are mostly conducted, there are also cases that application for changes in the name/ location of vehicle owners, or application for disuse of the vehicle are necessary, but those procedures does not exist which makes MPWT hardly estimates the accurate number of vehicles that currently used. To improve the management of vehicles in both quality and quantity, only effort of MPWT is not enough; it needs cooperation with other related administrative organizations for improving such situations.

Figure 27 Basic flow for accurate vehicle registration information

- Wide variety of players exist in vehicle registration. In order to abstract their relationships and to show the path to solution, they are classified into 4 groups in this report. “Competent authority” which controls the vehicle registration system in the center of the figure, while the stakeholders is expressed by "public sector", "private sector" and "civil society (third sector)" with arrows expressing their relationship.
- The red part in the figure describes problems assumed in each stakeholder in vehicle registration management administration.

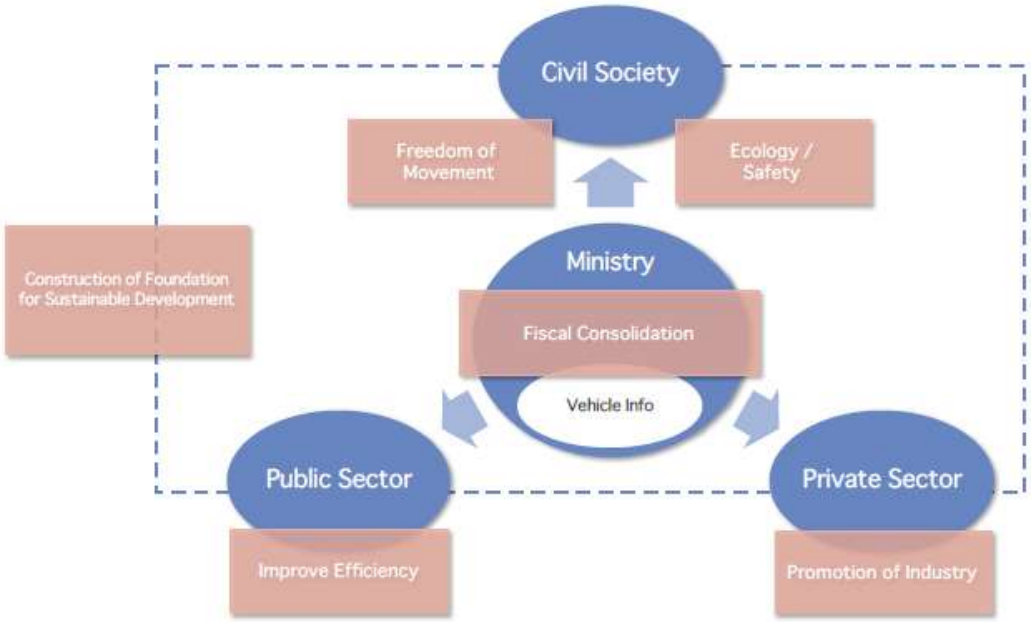


Figure 28 Players related to vehicle registration

- The improvement plan was formulated and presented as follows for each issue mentioned above.

Table 50 Specific tasks that needed to undertake the priority subjects

Priority subjects	Goals	Tasks
Construct foundation for sustainable development	Normalization of vehicle registration information	Improvement of administrative system of vehicle registration
	Realization of sustainable system infrastructure	Improvement of IT system infrastructure
	Establish a sustainable operation system	Introduction of container type data center
Improve efficiency of public administration	Enhancement of administrative functions	Build a business function for administrative collaboration
	Enhancement of policy planning ability	Build a business function for information retrieval
Promote industries	Activate business activities	Build a business function for application reception
	Improve efficiency of registration process	Build a business function for information provision

Improve safety and ecology	Promotion of public participation	Build a business function for information disclosure
Fiscal consolidation	Establishment of earnings securing method	Ensuring profit by information provision
Realize freedom of movement	Promotion of next generation mobile service	Connected vehicle/autonomous vehicle/sharing services/electric vehicle

•

(4) Output 4. Awareness-raising operation on vehicle inspection, maintenance, etc. for users promoted by MPWT staff as improved

Activity 4-1. Conduct the training of MPWT staff on vehicle inspection, maintenance, etc, Carrying out of training in Japan

＜Planned Activities＞

- We hold training sessions in Japan that are approximately 10 days in length, holding one session every year within three years, making a total of three sessions.
- We hold the first training session prior to the first meeting of the JCC in December 2016.
- The training is given to ministry and agency executives who are involved in vehicle registration or vehicle inspection. The goal of the training is to have the participants understand the meaning of the vehicle registration system or the vehicle inspection system, the benefits to be gained through the use of IT systems, etc., and to have the participants go forward aggressively towards the improvement of vehicle-control administration (including the present project).
- We hold the second and third training sessions after the reform proposals for vehicle registration and vehicle inspection have been decided upon. For this reason, we separate those who are in charge of vehicle registration from those who are in charge of vehicle inspection and carry out more practical training so as to deepen the participants' understanding on the occasion of the implementation of the reform proposals.
- At the second session, we hold the training on practical aspects of vehicle registration and of IT systems for registration.
- Although the first session also have a part regarding vehicle registration, we project that in the second session — in order that participants may gain a grasp of more practical matters — the content also include operations flow for different types of transaction patterns, the use of car dealerships as surrogates in order to ensure reliable registration, human resources development by car dealerships, etc. In addition, because cross-border vehicles and vehicle import-export trade are abundant in Cambodia, we are also projecting that there will be training concerning trade flow at a customs office or at an importer or exporter.
- At the third session, we expect there to be training on the practical aspects of vehicle inspection and of IT systems for vehicle inspection.
- Although the part of the third session that deals with vehicle inspection has many elements in common with the relevant part of the first session, there is also be training regarding the detailed requisites for a vehicle-inspection station, the items that are actually checked at publicly or privately run vehicle-inspection stations and the qualifications of those in charge there, public awareness campaigns for vehicle inspection, etc. In addition, because the Japan Automobile Service Promotion Association offers training to foreigners on servicing automobiles, participants receive training regarding how automobile mechanics are trained in Japan, regarding key points when carrying out vehicle inspection and servicing, etc.
- Nevertheless, we hope to revise the plans for the actual content of the training after taking into account the views of the long-term experts and while carrying on discussions with JICA and the various organizations that are expected to be involved in the lectures.

<Actual activities>

(a) The 1st Training in Japan (official visit) of 2017

[Preparation of the training]

- JICA experts visited the Ministry of Land, Infrastructure, Transport and Tourism in Japan on September 12, 2016, and requested an explanation and cooperation concerning training in Japan.
- The training plan planned by the long-term expert was presented to MLIT, and on September 15, agreement was reached on the presentation of a training plan for JICA based on this proposal.
- On September 22, H.E. Chan Dara, Director General explained about the training program and received instructions for prospective attendees.

  After some corrections which H.E. Chan Dara pointed out, JICA experts had a meeting with H.E. Tauch Chankosal on September 27, and the schedule and contents were confirmed by him.
- Training in 2017 as an official visit for executives of MPWT and related Ministries, and the planned program and participants were approved in the 1st JCC held in December 2016.

[The Result of the 1st training in Japan]

- Following 10 executives of MPWT and related ministries participated in the 1st training in Japan

Table 51 Participants of the 1st training in Japan

Name	Position
H.E. Tauch Chankosal	Secretary of State,MPWT
Mr. Kong Sophal	Deputy Director General, General Department of Transport, MPWT
Mr. Peau Maly	Deputy Director General, General Department of Transport, MPWT
Mr. Chea Socheat	Director of Transport, General Department of Transport, MPWT
Mr. Ken Ratha	Deputy Director of Cabinet, MPWT
Mr. Heang Sotheayuth	Official of Cabinet, MPWT
H.E. Ken Sambath	Deputy Director of General Department of Taxation, MEF
Mr. Sok Sovithyea	Deputy Director of Planning, Technique and International Affair Department, General Department of Customs and Excise, MEF
H.E. Khieng Sokunthea	Director of Khmer National Identification of General Department of Identification, MOI
H.E. Run Rothveasna	Director of Traffic Police and Public Order Department, National Police, General commissariat of national police, MOI

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- Actual training program was as shown in Table 52.

Table 52 Actual training program of the 1st Training in Japan

Date and Time				Contents		Lecturer/ Explainer
Feb13 (Mon)	10:00	~	12:00	lecture	Briefing	JICA
	13:30	~	14:30	lecture	Overview of the vehicle registration system in Japan	MLIT
Feb14 (Tue)	10:00	~	11:00	lecture	Overview of the vehicle inspection system in Japan	MLIT/NALTEC
	11:10	~	11:50	lecture	Overview of Motorcar Total Information Advanced System(MOTAS)	NTTDATA
	13:00	~	14:00	visit	Visit Transportation branch office window, vehicle inspection center	MLIT/NALTEC
	10:00	~	11:00	lecture	Summary of certification of car maintenance business and designated system	MLIT
	14:20	~	14:50	visit	Machine room inspection	NTTDATA
	15:30	~	16:30	visit	Visit INFORIUM (a kind of technology center)	NTTDATA
Feb16 (Thu)	9:00	~	10:10	lecture	Outline and maintenance management of vehicle inspection equipment	ANZEN MOTOR
	11:30	~	11:50	lecture	overiview of designated vehicle maintenance office	YAMATO AUTO WORKS
	12:00	~	12:30	visit	Visit designated car maintenance site	YAMATO AUTO WORKS
Feb17 (Fri)	10:00	~	10:25	lecture	Overview of the type designation system of motor vehicles and equipment	MLIT
	10:25	~	10:50	lecture	Applying safety and environmental standards to new models	MLIT
	11:00	~	12:00	lecture	Future development of automotive information utilization	MLIT

Group photo in JICA Tokyo

Orientation in JICA Tokyo

Kanto District Transport Bureau Tokyo Branch

Vehicle inspection center

Courtesy call in MLIT

Site visit in NTT Data

(b) The 2nd Training in Japan of 2018

[Preparation of the training]

- JICA experts got an approval for the 2nd training in Japan in the 2nd JCC.
- As the 1st training was for executive level, the 2nd training was planned for the practical level officials who are in charge of three pillars (vehicle registration, vehicle inspection and IT system). Especially, it is too short to learn vehicle inspection, we consult with JICA and decided to extend the training term for vehicle inspection to 7 days.

[The Result of the 2nd Training in Japan]

- Following 7 officials participated in the training, and three of them stayed in the second week and continued to attend the training centered on the practical training courses for vehicle inspection.

Table 53 Participants of the 2nd training in Japan

Name	Position
Mr. Suon Vanhong	Deputy Director General, General Department of Land Transport
Mr. Kheng Socheat	Officer, Vehicle Registration Office, General Department of Land Transport
Mr. Chea Chandaravuth	Officer, Vehicle Registration Office, General Department of Land Transport
Mr. Chheng Samnang	Deputy Chief, Statistic & Data Collection Office, General Department of Land Transport
Mr. So Pisey	Deputy Director General, General Department of Land Transport
Mr. Taing Peou	Chief, Vehicle Inspection Office, General Department of Land Transport
Mr. Sum Lyna	Officer, Vehicle Inspection Office, General Department of Land Transport

Table 54 Scheduled of the 2nd Training in Japan(1st week)

Date and Time			Contents	Lecturer/ Explainer
Feb 13	Tue	13:00-15:00	Briefing	JICA
Feb 14	Wed	9:00-10:00	Overview of the vehicle registration system in Japan	MLIT
		11:00-12:00	Overview of the vehicle inspection system in Japan	MLIT
		13:15-14:45	Visit Transportation branch office window, vehicle inspection center	MLIT/NALTEC
		15:00-15:40	Overview of Motorcar Total Information Advanced System(MOTAS)	NTTDATA
Feb 15	Thu	10:10-11:10	Overview of automechanic certification system	MLIT
		13:30-14:00	Visit designated car maintenance site	KANTO MITSUBISHI MOTOR
		14:30-16:30	Visit college for auto mechanic	Auto Mechanic College
Feb 16	Fri	9:00-10:00	Summary of certification of car maintenance business and designated system	MLIT
		10:00-11:30	About application of safety, environmental standard to new model car, and outline of type specification system of car and apparatus	MLIT
		11:30-12:00	Future development of automotive information utilization	MLIT
		14:00-14:40	Machine room inspection	NTTDATA

Table 55 Schedule of the 2nd Training in Japan(2nd week(for vehicle inspection))

Feb 19	Mon	9:00-10:00	Outline of vehicle inspection equipment (specifications and standards) and maintenance management (inspection and calibration)	Private vehicle inspection equipment manufacturer
		10:10-12:10	Maintenance and management of vehicle inspection equipment (inspection and calibration) [practice]	Private vehicle inspection equipment manufacturer
		13:30-16:30	Vehicle inspection at a private car inspection [practice]	Private company operating vehicle inspection center
Feb 20	Tue	10:50-12:20	Visit automobile test site	NALTEC
		15:30-16:30	capacity building of organization staff (technical training)	NALTEC
			explanation of advanced system (※ database of examination result)	
Feb 21	Wed	9:40-10:50	Visit vehicle inspection center	NALTEC
		11:00-12:00	vehicle inspection (practice)	NALTEC
		13:30-15:30	vehicle inspection (practice)	NALTEC

[Questionnaire results after the training]

- At the end of the training in Japan, we asked trainees to evaluate their understanding and effectiveness of the training content. The result is as follows.

① Level of understanding

- The level of understanding of the trainees about the training lectures and visit is as follows.
- While the basic outline of the registration system, the outline of the inspection system, and the degree of understanding of the window inspection are good, the degree of understanding of the matters related to IT seems to be difficult for the person in charge of the different area.

Table 56 Survey Result (level of understanding-1st week)

Date and Time			Contents	unable to understand	unable to understand well	able to understand	able to understand well
Feb 14	Wed	9:00-10:00	Overview of the vehicle registration system in Japan			5	2
		11:00-12:00	Overview of the vehicle inspection system in Japan			5	2
		13:15-14:45	Visit Transportation branch office window, vehicle inspection center			5	2
		15:00-15:40	Overview of Motorcar Total Information Advanced System(MOTAS)		2	5	
Feb 15	Thu	10:10-11:10	Overview of automechanic certification system			6	1
		13:30-14:00	Visit designated car maintenance site		1	5	1
		14:30-16:30	Visit college for auto mechanic			6	
Feb 16	Fri	9:00-10:00	Summary of certification of car maintenance business and designated system			6	1
		10:00-11:30	About application of safety, environmental standard to new model car, and outline of type specification system of car and apparatus		1	5	
		11:30-12:00	Future development of automotive information utilization		1	6	
		14:00-14:40	Machine room inspection		3	4	
total				0	8	58	9

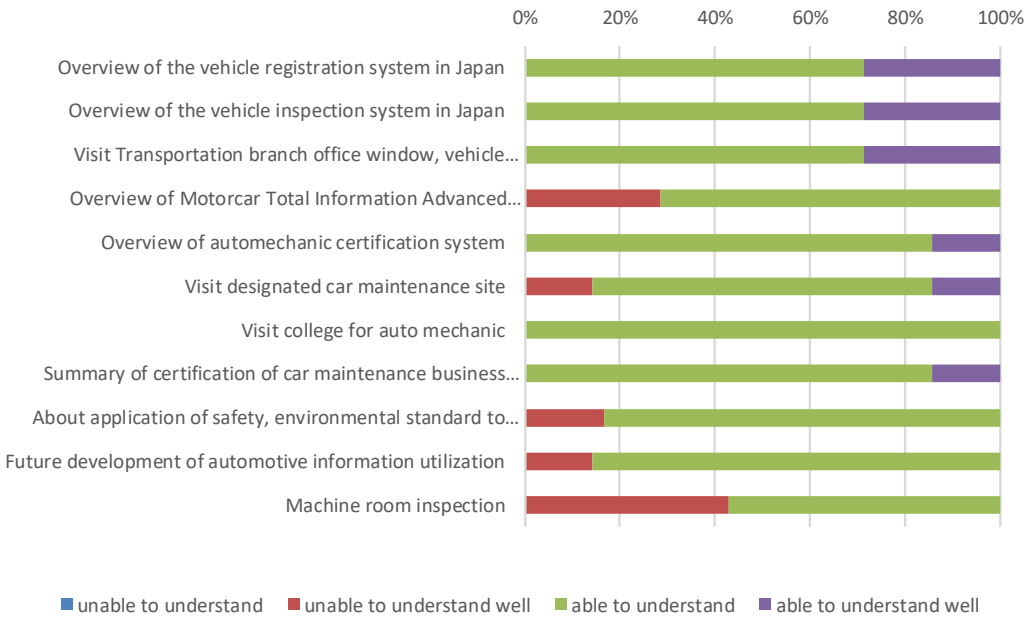


Figure 29 Survey Result (level of understanding-1st week)

Table 57 Survey Result (level of understanding-2nd week)

Date and Time		Contents	unable to understand	unable to understand well	able to understand	able to understand well
Feb 19	Mon	Outline of vehicle inspection equipment (specifications and standards) and maintenance management (inspection and calibration)			2	1
		Maintenance and management of vehicle inspection equipment (inspection and calibration) [practice]			2	1
		Vehicle inspection at a private car inspection [practice]			2	1
Feb 20	Tue	Visit automobile test site		1	1	1
		capacity building of organization staff (technical training) explanation of advanced system (※ database of examination result)			2	1
Feb 21	Wed	Visit vehicle inspection center			2	1
		vehicle inspection (practice)			2	1
total			0	1	13	7

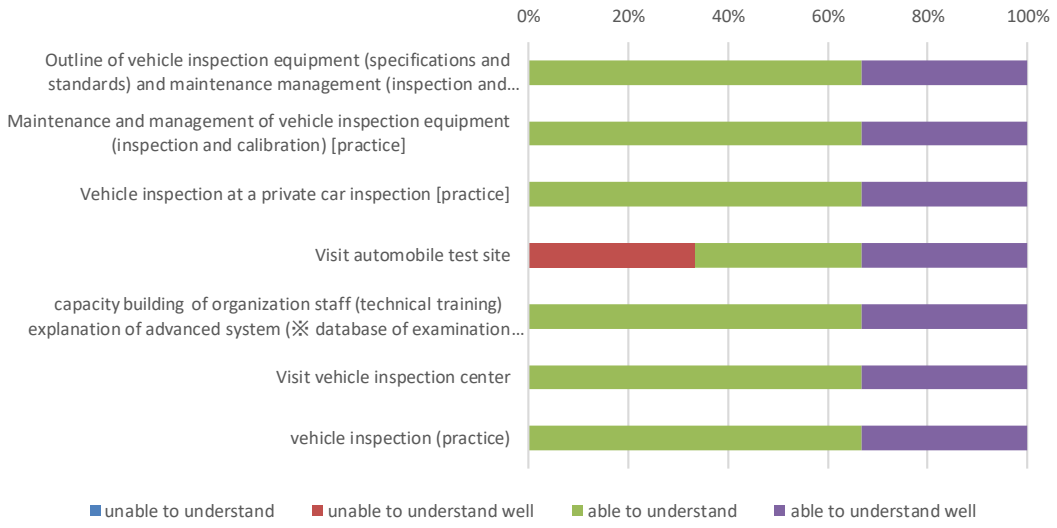


Figure 30 Survey Result (level of understanding-2nd week)

② Effectiveness

- As for the effectiveness of the training, while the outline of the basic registration system, the outline of the inspection system, and the degree of understanding of the window inspection are good, some evaluations that have not been introduced in Cambodia were not highly evaluated. The more specialized training for vehicle inspectors in the second week was generally rated highly effective.

Table 58 Survey Result (effectiveness-1st week)

Date and Time			Contents	Can not be used	Not very useful	Can be used	Very useful
Feb 14	Wed	9:00-10:00	Overview of the vehicle registration system in Japan			3	3
		11:00-12:00	Overview of the vehicle inspection system in Japan		1	2	4
		13:15-14:45	Visit Transportation branch office window, vehicle inspection center		1	2	4
		15:00-15:40	Overview of Motorcar Total Information Advanced System(MOTAS)		1	3	3
Feb 15	Thu	10:10-11:10	Overview of automechanic certification system		1	2	4
		13:30-14:00	Visit designated car maintenance site		1	2	4
		14:30-16:30	Visit college for auto mechanic		2	1	4
Feb 16	Fri	9:00-10:00	Summary of certification of car maintenance business and designated system		1	3	3
		10:00-11:30	About application of safety, environmental standard to new model car, and outline of type specification system of car and apparatus		3	2	2
		11:30-12:00	Future development of automotive information utilization		1	3	3
		14:00-14:40	Machine room inspection		2	1	4
total				0	14	24	38

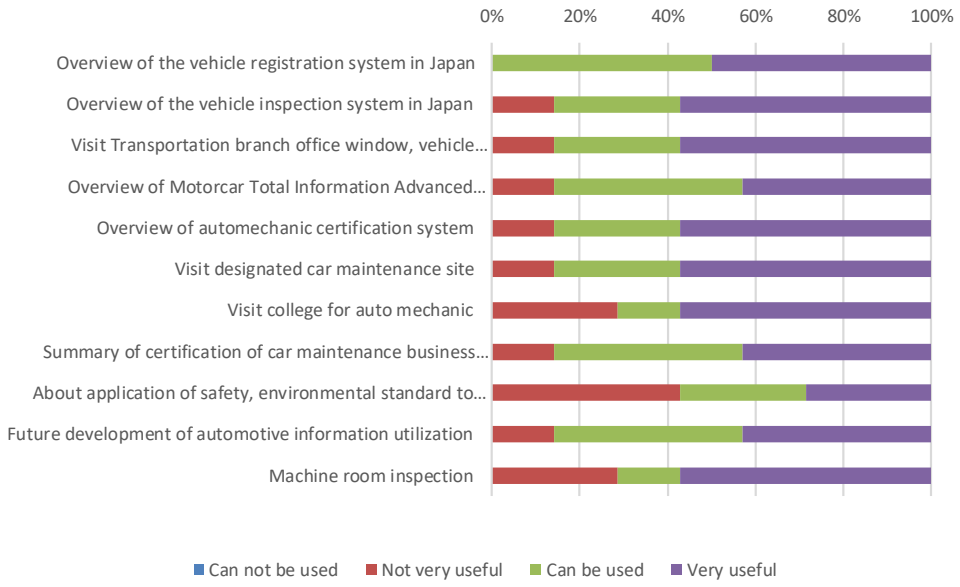


Figure 31 Survey Result (effectiveness-1st week)

Table 59 Survey Result (effectiveness-2nd week)

Date and Time		Contents	Can not be used	Not very useful	Can be used	Very useful
Feb 19	Mon	Outline of vehicle inspection equipment (specifications and standards) and maintenance management (inspection and calibration)			3	
		Maintenance and management of vehicle inspection equipment (inspection and calibration) [practice]			3	
		Vehicle inspection at a private car inspection [practice]			3	
Feb 20	Tue	Visit automobile test site			2	1
		capacity building of organization staff (technical training) explanation of advanced system (※ database of examination result)			3	
Feb 21	Wed	Visit vehicle inspection center			3	
		vehicle inspection (practice)			3	
total			0	0	0	0

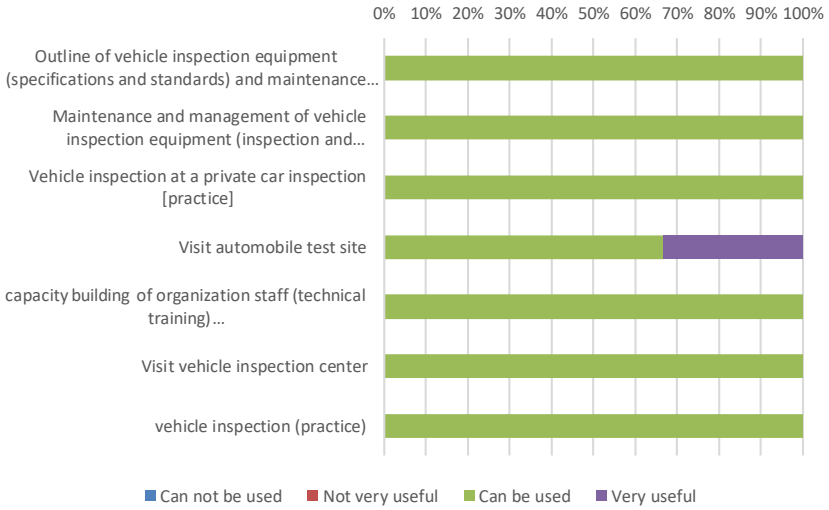


Figure 32 Survey Result (effectiveness-2nd week)

③ **Free Description**

- The trainees in charge of vehicle inspections commented that they expect to receive longer training and to conduct training next year
  - ✧ I express my gratitude for having set up this training course. This training was very effective for present and future Cambodia.
  - ✧ Of course, the period was short, but I was able to learn and understand about vehicle inspections.
  - ✧ If I had more time, I wanted to learn more. Because it is necessary to harmonize safety, environment and vehicles.
  - ✧ I would like to learn more about the education system of the Japanese vehicle inspection and inspection institute. If so, I think that some systems will be introduced in Cambodia, which will lead to improvement of inspector's capacity.
  - ✧ I would like to have more training courses for staff involved in vehicle inspection and inspection equipment.
  - ✧ Take enough time to understand that this experience can be applied to Cambodian sites
  - ✧ I think that the vehicle inspection training course is extremely important for my own work and for the development involved in vehicle inspection in Cambodia.
  - ✧ I would like to learn more about the certification system of designated maintenance factories in Japan and the vehicle maintenance system in order to introduce it in Cambodia.
  - ✧ The time for questions and answers in each lecture was not enough.
  - ✧ The training from Japanese technical experts was very interesting both in terms of technology and experience. However, the time for each lecture and training was short, and there was no time to discuss details with the instructor.
  - ✧ We suggest that you have time for each lecture more for the next fiscal year.
  - ✧ Being able to observe the modern technology of car inspection in Japan was a very important and good

opportunity for us to become a modern generation and to protect social safety and the environment.

✧ Finally, I would like to suggest that JICA will be able to set up a training course next year. Because my knowledge is still limited, I hope that I would like to have such a good opportunity once again

Vehicle inspection center

Vehicle inspection center

NTTDATA

Designated vehicle maintenance shop

Designated vehicle maintenance shop

College for automobile mechanics

Vehicle testing center

Vehicle testing center

(c) The 3rd Training in Japan of 2019

[Preparation of the training]

- JICA experts got an approval for the 3rd training in Japan in the 4th JCC.
- Initially, the 3rd training course was planned to be for practical personnel, but the personnel change in MPWT has replaced the executives of this project. So we decided to target people who do not have experience of the training in Japan.
- After the approval of the training, JICA experts asked the cooperation to supposed lecturers and visit sites.

Table 60 The program of the 3rd training in Japan

Date and Time			Contents	Lecturer/ Explainer
Jan15	Tue	10:00-12:00	Briefing	JICA
		13:00-13:30	Overview of the training program	NTTDATA Institute of Management Consulting
		14:15-15:00	Overview of Motorcar Total Information Advanced System(MOTAS)	NTTDATA
		15:00-15:50	Machine room inspection	NTTDATA
Jan16	Wed	9:30-10:30	Overview of the vehicle inspection system in Japan	MLIT
		10:40-12:10	Visit Transportation branch office window, vehicle inspection center	MLIT/NALTEC
		14:00-15:00	Summary of certification of car maintenance business and designated system	MLIT
		15:00-16:00	About application of safety, environmental standard to new model car, and outline of type specification system of car and apparatus	MLIT
Jan17	Thu	9:30-10:30	Outline and maintenance management of vehicle inspection equipment	AnzenMotor
		11:00-12:00	Visit designated car maintenance site	Designated Vehicle Maintenance Site
		13:50-15:20	Visit college for auto mechanic	Auto Mechanic College
Jan18	Fri	9:00-10:00	Overview of the vehicle registration system in Japan	MLIT
		10:00-11:00	Future development of automotive information utilization	MLIT
		11:10-11:20	Review of the training	NTTDATA Institute of Management Consulting
		11:20-12:00	Visit college for auto mechanic	Auto Mechanic College

[The Result of the 3rd Training in Japan]

- Following 7 officials of MPWT participated in the 3rd training in Japan

Name	Position
H.E. Chhoun Voun	Director General, General Department of Land Transport
Mr. Sokhom Vireakphal	Deputy Director General, General Department of Land Transport
Mr. Suon Vanhong	Deputy Director General, General Department of Land

	Transport
Mr. Teas Dararoth	Deputy Director, Department of Information Technology and Public Relation
Mrs. Men Chan Sokol	Director General, Department of Land Transport, General Department of Land Transport
Mr. Tam Oudom	Chief, Vehicle Registration Office, General Department of Land Transport
Mr. Un Vath	Chief, Vehicle Inspection Office, General Department of Land Transport

Courtesy call in MLIT

Kanto District Transport Bureau Tokyo Branch

Vehicle inspection center

Vehicle inspection center

Designated vehicle maintenance shop

Designated vehicle maintenance shop

[Questionnaire results after the training]

- At the end of the training in Japan, we asked trainees to evaluate their understanding and effectiveness of the training content. The result is as follows.

① Level of understanding

<Q1:the clarity of the explanation>

- Many of the responses indicated that the explanation was easy to understand, but some trainees evaluated that the explanation was partially unclear

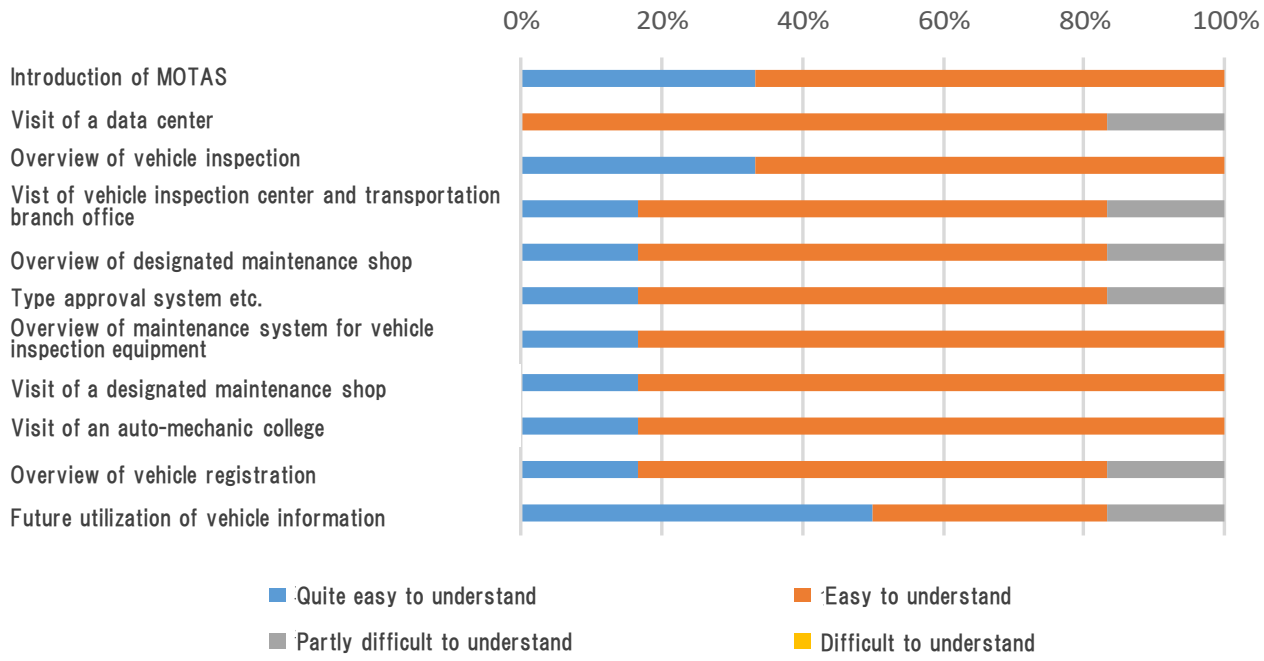


Figure 33 Survey result (the clarity of the explanation)

<Q2:Appropriateness of difficulty level of the contents>

- As for the difficulty level, some people felt that it was too difficult for data centers and vehicle inspection systems. However, the explanation was evaluated as "intelligible", so it was unavoidable as the training covered all the three pillars.

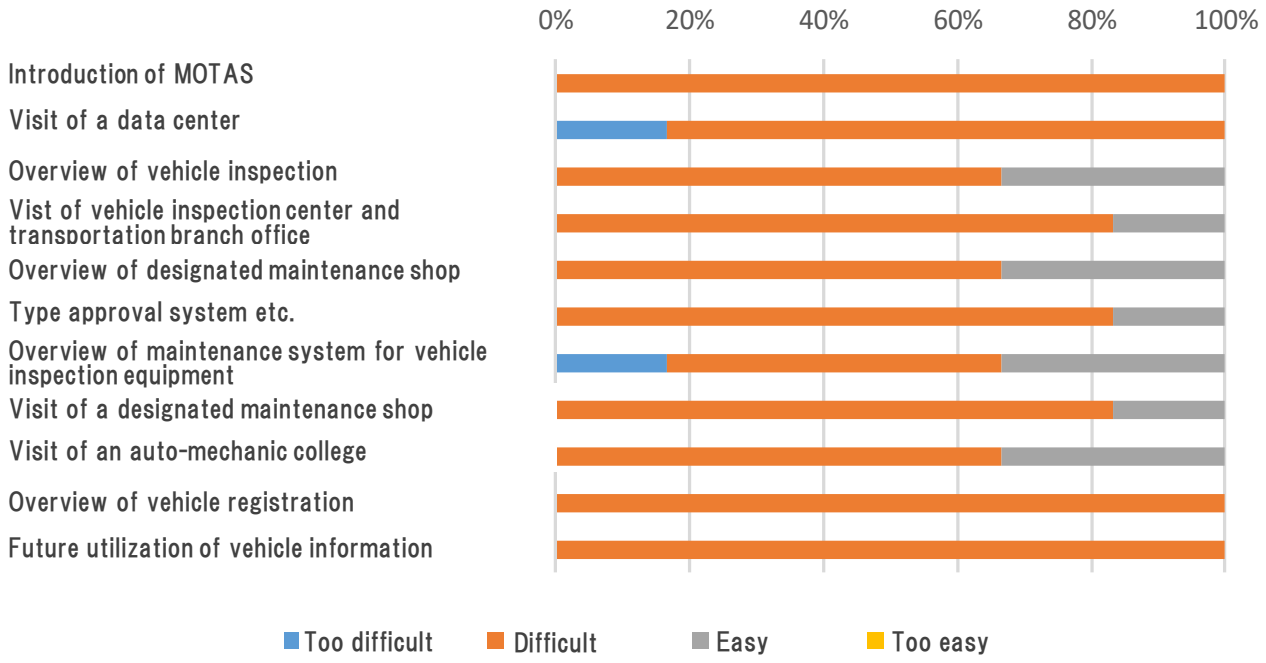


Figure 34 Survey result (Appropriateness of difficulty level of the contents)

<Q3:Appropriateness of information depth>

- About the depth of information, although there was a program judged to be "too detailed", it was generally evaluated as "sufficiently detailed".

  The trainees who evaluated as "too detailed" have rated the program slightly lower than other programs in the "Effectiveness" of Q4

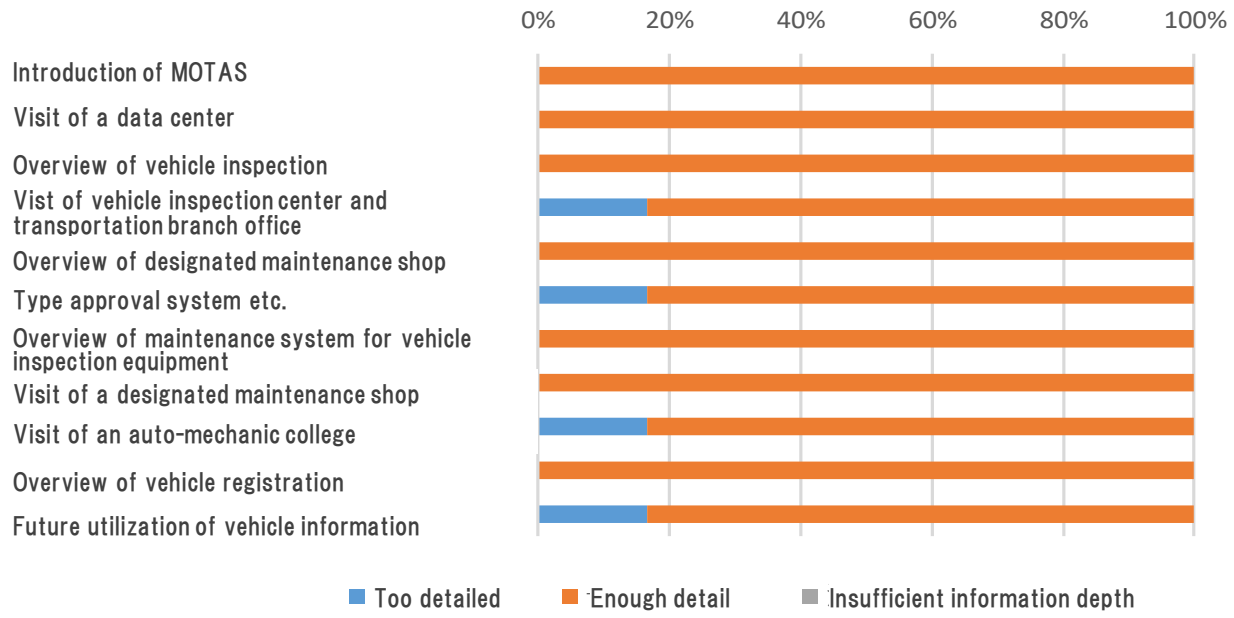


Figure 35 Survey result(Appropriateness of information dept)

② **Effectiveness for vehicle administration in Cambodia**

<Q4: Effectiveness of the training>

- As for the effectiveness for vehicle administration in Cambodia, the programs related to registration, vehicle inspection, and “Overview” related to IT were evaluated as particularly effective

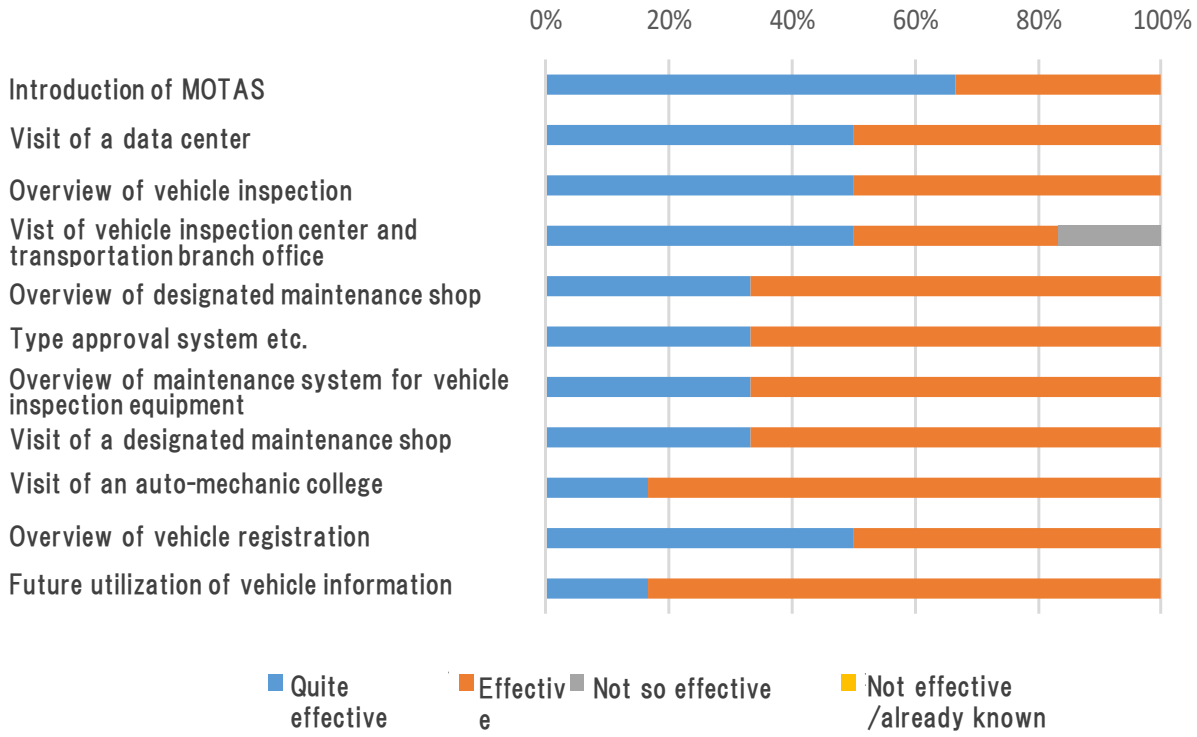


Figure 36 Survey result(Effectiveness of the training)

(d) Additional Activities (collaboration with other organizations)

- In addition to the training in Japan, JICA long-term experts make some opportunities for GDLT officers to learn the third countries’ system and attend international discussions as this project and some of them were with collaboration with other organizations.
  -

The 2nd Forum for South East Asia and the 7th Public and Private Joint Forum in Asian Region	
Date	October 18th to 20th, 2016
Place	Jakarta, Indonesia
Purpose	To proceed the harmonization of automobile safety standards in Asian region. This conference was organized by JASIC(Japan Automobile Standards Internationalization Center).
Budgeting	Budgeted by JASIC

Photos	 

The Automobile Service Equipment Exhibition 2017 and the Seminar of Automobile Maintenance Sector	
Date	June 1st to 2nd, 2017
Place	Tokyo, Japan
Purpose	To understand the scrutinizing of the licensing criteria of vehicle inspection for private company for making guideline and checklist of vehicle inspection.
Budgeting	Budgeted from this project(long term expert)
Photos	 

The 3rd Forum for South East Asia and the 8th Public and Private Joint Forum in Asian Region	
Date	November 22nd to 24th, 2017
Place	Manila, Philippines
Purpose	To proceed the harmonization of automobile safety standards in Asian region
Budgeting	Budgeted by this project (long term expert), getting support from Ministry of land, Infrastructure, Transport and Tourism
Photos	 

The 28th ACCSQ (ASEAN Consultative committee for standards and Quality) - Automotive Products Working Group (APWG) and its related meetings	
Date	October 17th to 19th, 2018

Place	Kuala Lumpur, Malaysia
Purpose	To proceed the harmonization of automobile safety standards in ASEAN region.
Budgeting	Budgeted by JASIC(for counterparts), getting support from Ministry of land, Infrastructure, Transport and Tourism
Photos	 

The 4th Forum for South East Asia and the 9th Public and Private Joint Forum in Asian Region	
Date	December 12th to 14th, 2018
Place	Chiang Rai, Thailand
Purpose	To proceed the harmonization of automobile safety standards in Asian region.
Budgeting	Budgeted by JASIC(for counterparts), getting support from Ministry of land, Infrastructure, Transport and Tourism
Photos	 

Activity 4-2. Supporting PR activities (seminars for car salesmen, PR campaigns directed at drivers, etc.) by MPWT staff regarding vehicle inspection, vehicle servicing, etc.

4-2-1.PR Activities

<Planned activities>

- We carry out PR activity — directed at automobile dealers, drivers, etc. — within the project. More specifically, from among the activities that are listed in Table 23, we select the methods that are appropriate and implement them.

Table 61.PR Activities and tools

Activities and tools for PR	Purpose
Pamphlet	common knowledge of the basic information regarding this project
Website	transmission of project activities and the result
Youtube	transmission of project activities and the improvement effect
Video	transmission of project result transmission of the information regarding vehicle regisyration and inspection system and IT system implemented in this project
Exhibitions	transmission of project activities and the result Consultations regarding vehicle registration and inspection
Seminar	Transmission of information regarding systems and technologies refarding vehicle registration, inspection and IT system for those. Promote understanding of systems and technologies refarding vehicle registration, inspection and IT system for those
Campaign	Calling the importance of vehicle registration and inspection Consultations regarding vehicle registration and inspection
Public Relations Seminar	transmission of project result transmission of the information regarding vehicle regisyration and inspection system

- We also conduct activities such as displays at exhibition halls for relevant vehicles, the creation of posters for seminars and PR campaigns, etc., and press tours for the media. The details of these activities, however, will be discussed — after the project begins — among JICA experts, persons in charge at the MPWT, and others, and then we carry out the PR activities that are best suited to Cambodia.

<Actual activities>

(a) Plan of the PR activities

- JICA experts has been planning and promoting PR activities while in consultation with the MPWT IT / PR department.
- The activities mainly consisted of organizing events and preparing tools for them, and it was decided that the tools should be created so that they can be used continuously even after the end of this project

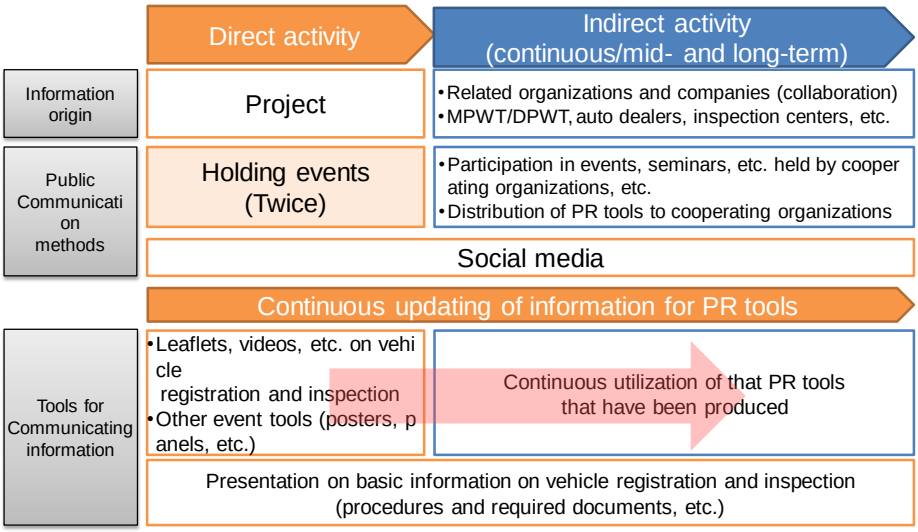


Figure 37 Plan of PR activity

- In line with the PR event in June 2018, we produced several types of tools, which will be able to be utilized after this project.

(b) Production of PR tools

- **Leaflets for Introduction of this project**

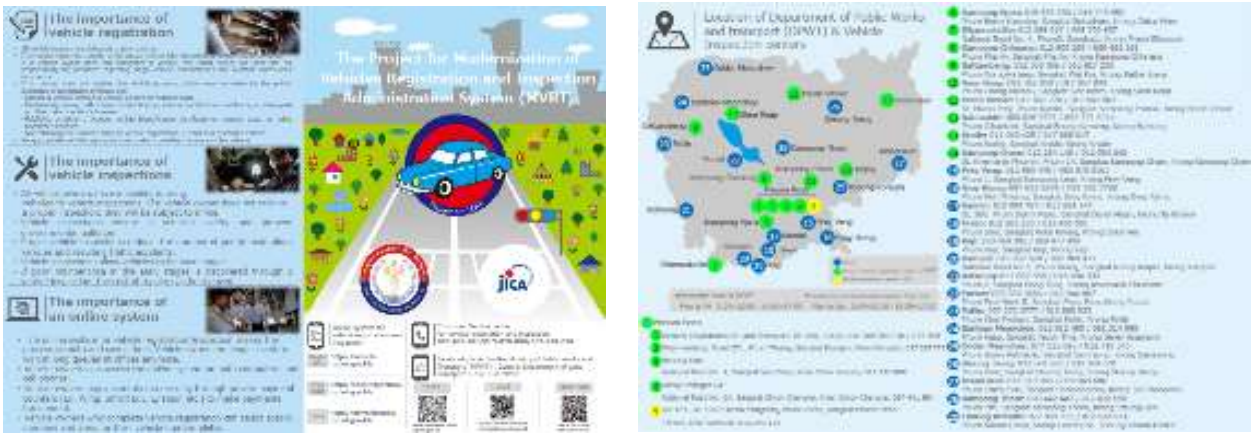
- JICA experts created project leaflets.
- The 1st version was created in 2017, which shows overview of the project, description of PDM (Project design matrix), issues and expected effect.

Cover page Facing page

Figure 38 1st version of the project leaflet (in Japanese, English, Khmer)

- In October 2018, we have revised project leaflet as to show the importance of vehicle registration, inspection

and online system, contact information, vehicle registration application office, address and phone number of vehicle inspection centers.



Cover page Facing page

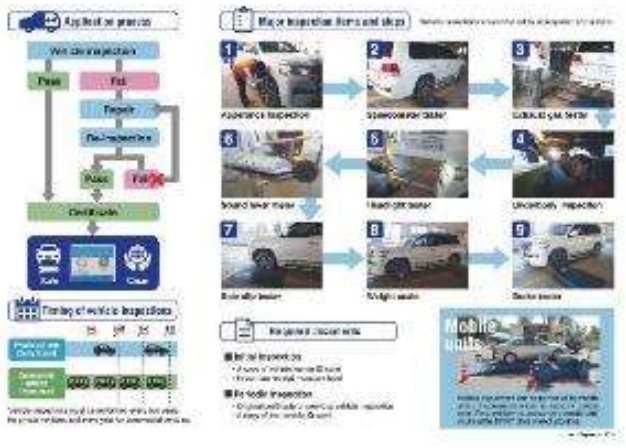
Figure 39 second version of the project leaflet (in English and Khmer)

- **Leaflets for vehicle registration and inspection**

- The leaflets are intended for the general public, and describes the significance of vehicle registration and vehicle inspection, required documents, application process, information (state name, phone number) about vehicle registration application office and vehicle inspection.
  -

Cover page Facing page

Figure 40 leaflet for vehicle registration



Cover page Facing page

Figure 41 leaflet for vehicle inspection

- **Leaflet for vehicle self-check**

- For the purpose of enlighten vehicle owners of self-check and maintain their vehicles, we produced leaflets for vehicle self-check.
- In order to encourage vehicle owners to go to maintenance shops when finding some failure items through their self-check, check items and check methodology are introduced with pictures so that vehicle owners can check their vehicles easily.
- Also, we encouraged to carry out specialized inspections at automobile maintenance shop on a regular basis.

Cover page Facing page

Figure 42 leaflet for vehicle inspection

Production of videos to improve understanding of vehicle registration and inspection

① **Types of produced videos (Table 62)**

- As Cambodian people tend not to read text descriptions, we have produced videos so that people can understand the contents visually.

Table 62 videos produced in the project

	Title	Contents	Production time
1	Vehicle registration guideline video	Introduction of online vehicle registration system and the explanation of the way to register	March 2018
2	Project introduction video	Project promotion scene of vehicle registration and vehicle inspection	July 2018
3	Vehicle inspection guideline video	The way of vehicle inspection	August 2018
4	Vehicle registration video for owner transfer	Significance of ownership transfer registration and its procedure	March 2019
5	Video to educate the exclusion of unregistered vehicles	Publication of Vehicles running without plate number	March 2019
6	Road safety enlightenment video	Road safety enlightened by national singer Ms. Aok Sokunkanha	April 2019
7	TV commercial of vehicle registration and inspection	Awareness raising of vehicle registration and inspection	May 2019
8	Vehicle registration video for deregistration	Significance of deregistration and its procedure	May 2019

② **Media where videos are broadcasted**

TV commercial

- The video No.7 was broadcasted in the 3 popular TV programs during 1st June to 30th June 2019 (for one-month period) as the schedule below;

1) Hang Meas TV

- 60sec Commercial: 30spots/month

2) CTN

- 60sec Commercial: 40spots/month
- 3sec Bumper: 80spots/month
- E-logo: 60spots/month
- Running text: 60spots/month
- End credit: 20spots/month

3) Fresh News

- 600-900spots/month for cable TV, smart TV, and mobile apps for iOS and Android

Advertisement on LED screen in Phnom Penh

- The video No.7 was broadcasted in the LED screens which are located in the heaviest traffic road during 13th June to 12th June 2019 (for one-month period). The frequency of the broadcasting is

30spots per day for each screen.

1) Kbal Knol

2) Chroy Chang Var

3) Phsar Oreursey

Facebook page

- Videos produced in this project were shared in the project Facebook page, MPWT Facebook page. e.g. viewer of vehicle registration guideline has reached 177,067 people.

Other media or companies

- Since there was a suggestion from the GDLT on the collaboration with the bus company in the meeting with the GDLT, the possibility was examined.
- As the long distance bus connecting Phnom Penh and each province is equipped with a television, and while driving, drama and comedy videos are broadcasted, JICA experts approached the bus company to see if it could also show the project video. We visited two out of the 45 bus companies based on the information obtained from GDLT and explained the project and the contents of the cooperation request.
- As a result, we have decided to distribute 3 companies as follows.

Table 63 bus companies which videos are distributed to and the distributed data

	Company name	Number of bus station in Cambodia	Total number of bus	Number of us equipped with a TV	Average number of passengers per day	Number pf media to be provided	
						USB	VCD
1	Rithmony trading	7	80	50	400-500	30	20
2	Capitol tours	15-20	150	150	2,100-2,400 (70-80 buses/day x 30 persons/bus)	0	150
3	Phnom Penh Sorya Dekchunchoun Nakdamnoeur	9	90	70	1,050	0	70

- **Enlightenment promotion goods**
  - We created eco bag and ballpoint to enlightenment promotion goods in this project.
  - These were distributed in the seminars, trainings, and events held in this project.
  - Especially, eco bags were often distributed with related materials inside and they contributed greatly

to raise awareness of this project, as many people use them even after the event.

Figure 43 Eco Bag and Pen

- **X stand**
  - JICA experts produced X-stand for this project for the event at Aeon Mall held in October 2018 (Figure 44 X-stand and its distributed site)
  - X-stand shows the contact information of customer support center of MPWT, and motto “Register when you buy a vehicle, Register ownership transfer when you transfer your vehicle, and Deregister if you dispose your vehicle. You must not drive a vehicle without vehicle registration”.

Distributed site	Number	Remarks
DPWT	25	DPWT in 25 provinces
Vehicle inspection center	14	All the inspection centers in cambodia
TOYOTA Cambodia (vehicle dealer)	6	6 shops
Suzuki (vehicle dealer)	2	2 shops
Pit&Go (vehicle maintenance shop)	2	2 shops
Car fresh (vehicle mainenance shop)	2	2 shops
MINAMI Driving school (driving school)	1	1 school
License renewal center at AEON Mall	2	Aeon Mall 1 & 2
Tera Mart (convenience store in gas stations)	43	Directory managed store 43stores
TOTAL	97	

Figure 44 X-stand and its distributed site

License renewal center at AEON Mall

Tera Mart

Figure 45 x-stand being placed

- **Polo shirt for the event staff**
  - On the back of the polo shirt, a slogan of "Don't drive without proper vehicle registration. Let's conduct a regular vehicle inspection."
  - In this event, we tried to collaborate with Cambodian celebrities to gain the interest of many Cambodians. First, we negotiated with Hang Meas (a television station), which has a studio in AEON

MALL Sen Sok City, and discussed the possibility of collaboration with celebrities belonging to that company. I received a message from a celebrity who could have considered the possibility, I got in touch directly, and I received a story that it would be safe to negotiate. After that, we negotiated with Cambodian very popular female singer Ms. Aok Sokunkanha (about 1.89 million people on Facebook page), and they answered that they could cooperate with the project event for free. On September 30th 2018, we had a meeting with her to give an overview of the project and the event and to check the details of the event.

Figure 46 Polo shirt for event staffs

(c) Conduct events

[Conduct PR events]

- In this project, PR events were held three times in order to promote vehicle registration and inspection to Cambodian people.

Table 64 PR Events at AEON MALLs

No.	term	venue	Number of Visitors(estimated)
1	October 1st to 7th, 2018	AEON MALL Sen Sok City	2,000
2	December 17th to 19, 2018	AEON MALL Phnom Penh	650
3	June 24th to 25th, 2019	AEON MALL Sen Sok City	

① **The 1st event at AEON Mall Sen Sok City**

- A PR event was held from October 1st to 7th at AEON MALL Sen Sok City (The 2nd branch of AEON mall). At the event, MPWT staff provided consultations from the vehicle owner regarding vehicle registration and vehicle inspection, video screenings, and presented various fields (online registration, vehicle registration and vehicle inspection). At the event, the staff of GDLT who are in charge of vehicle registration and inspection, and the staff of the customer support center of the IT

/ PR department participated in the event, and AEON Mall visitors were informed about detailed information and importance of each field.

- In this event, Ms. Aok Sokunkanha (about 1.89 million people following the Facebook page), a very popular female singer in Cambodia, participated on October 7th on the final day. On the same day, in addition to the announcements in each field, we held an interview with her and informed the Cambodian people about the importance of vehicle registration and inspection through an interview. Also, at the end of the event, she held a mini-concert to gain the interest of many Cambodian people.

Talk show between Ms. Aok Sokunkanha and a GDLT staff

Small concert

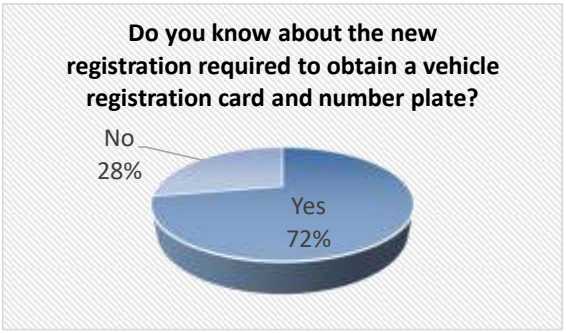
Figure 47 Event Program cooperated with Ms. Aok Sokunkanha

- **The result of the survey**
  - The major result of the survey was as follows.

(Vehicle registration)

- A lot of vehicle owners do not know well how to complete a registration
- They do not know the location of registration offices for each type of registration
- It is difficult to prepare the required documents for transfer registration
- Deregistration is not well recognized
- (Vehicle inspection)
- A lot of vehicle owners do not when vehicle inspections should be conducted
- They do not know the location of inspection centers
- The importance of vehicle inspection is not well recognized
- Transfer registration and deregistration are not recognised well, especially deregistration.

Type of regsitration	Visibility
New registration	72 %
Transfer registration	62 %
Deregistration	**25 %**



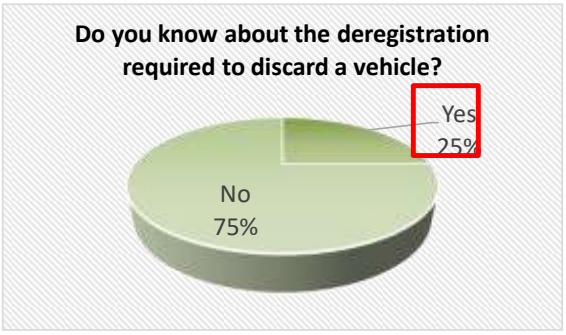


Figure 48 the result of survey-1 (knowledge level of vehicle registration)

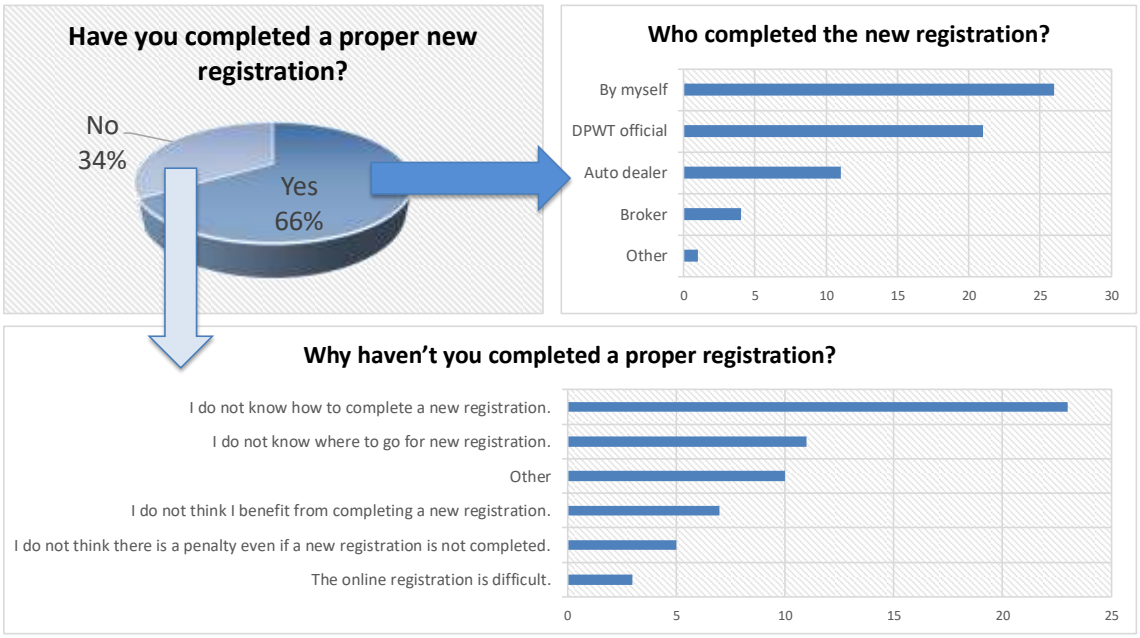


Figure 49 the result of survey-2(experience of vehicle registration)

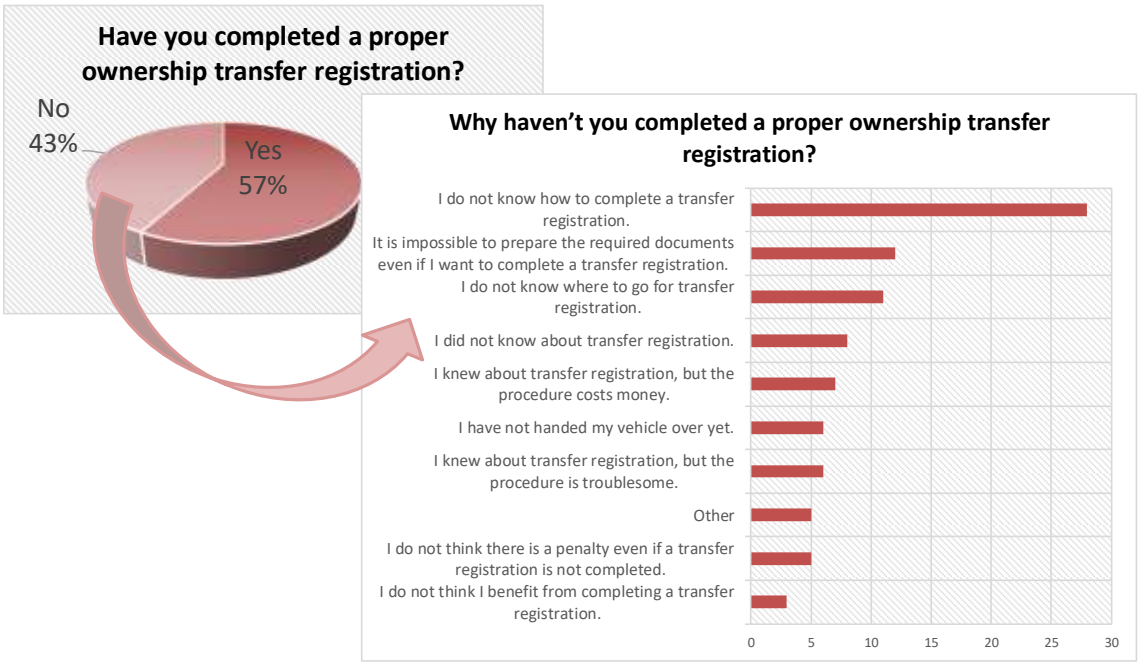


Figure 50 the result of survey-2 (experience of vehicle registration for owner transfer)

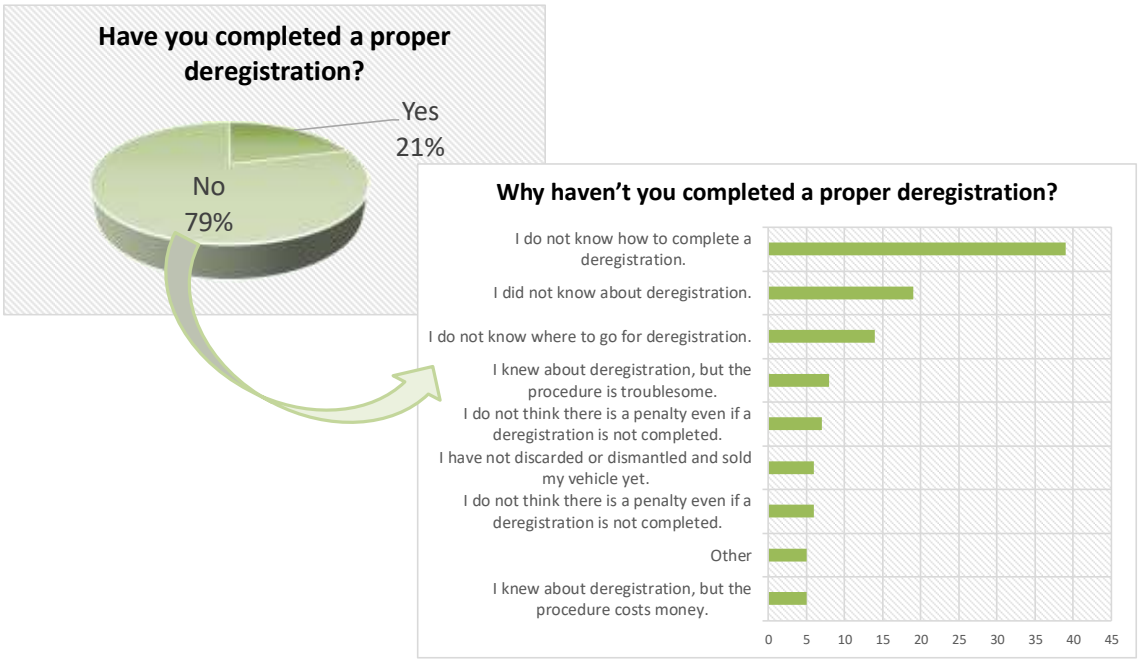


Figure 51 the result of survey-2 (experience of vehicle registration for deletion)

The importance of vehicle inspection is not recognised well.

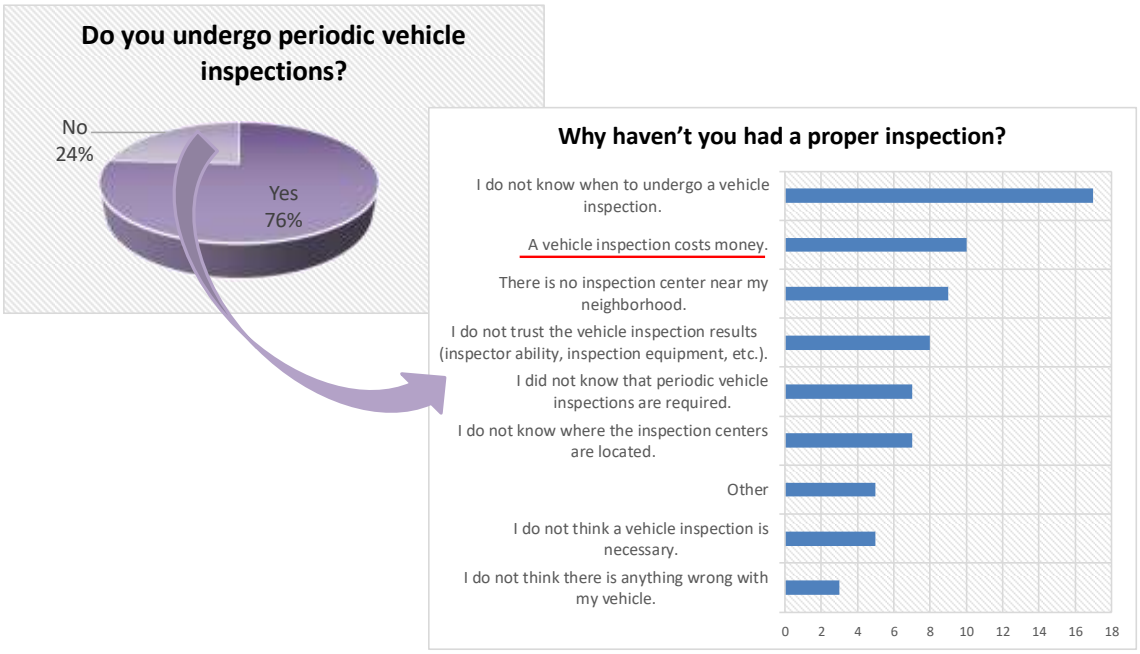


Figure 52 the result of survey-4(experience of the vehicle inspection)

② The 2nd event at AEON Mall Phnom Penh

- A PR event was held from December 17th to 19th, 2018 at AEON MALL Phnom Penh (The 1st branch of AEON mall). At the event, MPWT staff conducted consultations from the vehicle owner regarding vehicle registration and vehicle inspection, video screening, announcement of each field (online registration, vehicle registration and vehicle inspection), vehicle registration and vehicle inspection quiz, etc. At the event, the staff of GDLT who are in charge of vehicle registration and inspection, and the staff of the customer support center of the IT / PR department participated in the event, and AEON Mall visitors were informed about detailed information and importance of each field.
- The estimated number of event visitors was approximately 650 people. The opening ceremony was held on the first day, and information was also disseminated through the media. After presentations from each field, Q&A session was held with the visitors, and active information and discussions were held with the MPWT staff.
- Also, at this event, we set PCs to enable online registration at the venue. And as some visitors registered their vehicles at the venue, it is considered that they were more effective than the previous PR event.

Opening ceremony

Explaining the procedure of vehicle registration to the visiter

③ **The 3rd PR event at Aeon Mall Phnom Penh**

- At the 5th JCC meeting, MPWT commented on holding a PR event in a local area, so we examined its feasibility.
- However, since there is no public place where an unspecified large number of people gather outside Phnom Penh and many registrants can not be expected, it is considered that the possibility and effectiveness of holding a PR event in a local area is low.
- Therefore, we decided to conduct the 3rd PR event in Phnom Penh again.
- The 3rd event was held from June 24th to 25th 2019 at AEON Mall Sen Sok City Penh (The 2nd branch of AEON mall) in collaboration with GDLT and IT/PR department of the MPWT in order to promote the understanding on vehicle registration and inspection of Cambodian people.
- The main contents of the third event was the same as the last two events.
- H. E. Sun Chanthol, Senior Minister of Public Works and Transport attended the opening ceremony of the event and the summary of the project activities was reported by H.E Chhoun Voun, Director General, General Department of Land Transport on 24th June, 2019.

Opening remarks by the Senior Minister

Booth visit by the the Senior Minister

- A questionnaire was given to the visitors during the PR event to confirm the effect of the event. The questionnaire results are shown in the figure below. All questionnaire respondents were able to

deepen their understanding about the vehicle registration and inspection process and 82% of respondents were able to obtain new information on vehicle registration and inspection. Therefore, the event was effective for the visitors

Figure 53Questionnaire results about the level of understanding of the visitors to the PR event

④ **Other events**

Japan-Cambodia Kizuna Festival from February 22nd to 25th 2018	
overview	This is the biggest event to introduce Japan in Cambodia, which has been conducted by Cambodia-Japan cooperation center since 2011. JICA experts joined the event in cooperation with IT/PR department of MPWT.
Period	February 22nd to 25th, 2018
Venue	Cambodian-Japan Cooperation Center (CJCC)
Estimated visitors	10,000 people attended the event, and around 1,000 people of those visited the project booth.
Orientation	February 23rd, 2018 • Presentation on online registration by Mr. Heang Sotheayuth, Director of the IT/PR Department of MPWT • Presentation on the transportation sector by Mr. Chea Socheat, Director of Land Transport Department of GDLT, MPWT
Photos	 

Japan-Cambodia Kizuna Festival from February 22nd to 24th 2019	
overview	This is the biggest event to introduce Japan in Cambodia, which has been conducted by Cambodia-Japan cooperation center since 2011.
Period	February 22nd to 24th, 2019
Venue	Cambodian-Japan Cooperation Center (CJCC)
Estimated visitors	12,000 people

Photos	 

BarCamp 2017 (Tech & Startup event)	
overview	IT/PR department of MPWT exhibited at the event called BarCamp 2017 JICA experts introduced the project and distributed related leaflets.
Period	30 January 2018
Venue	Institute of Technology Cambodia (ITC)
Estimated visitors	N/A
Photos	 

Traffic safety PR event	
overview	Traffic safety PR event was held by the collaboration with Road Safety Department and SUZUKI corporation (Japanese vehicle dealer) and DPWT in Siem Reap. As enlightenment activities for vehicle owners on the route No.5 of national road, education for high school students, we informed vehicle registration and inspection related information in addition to road safety information in order to raise understandings of attendants.
Period	March 30th, 2019
Venue	route No.5 of national road/High school
Estimated visitors	N/A
Photos of enlightenment activities on the rout 5 of national road	 

	
Photos of education at a high school	  

(d) Other promotion activities

Project Facebook Page	
Background	In Cambodia, since Facebook is effectively used as an information dissemination tool, this project has launched the official Facebook page of the project. Introduces project activities such as JCC, training, surveys, etc., and publicizes project outputs (pamphlets, videos, etc.)
	

Effect of the Facebook page

Item	Result
Number of followers	4,239 people
Number of Articles	75 articles
Number of share or replay of PR Video	
Video for Vehicle registration guideline	Replay 88,657 times、Share 482 times
Video for vehicle inspection guideline	Replay 106,321 times、share 541 times
Video for introduction of the project	Replay 2,825 times、share 6 times
Video for enlightenment of unregistered vehicles exclusion	Replay 12,528 times、share 190 times
Video for traffic safety enlightenment (Ms. Aok Sokunkanha)	Replay 78,823 times、share 316 times

Notices

- In this project, we could collaborate with national singer Ms. Aok Sokunkanha for PR events and video creation.
- The video she appears has replayed 78,823 times, and this number is much more views than the other videos. This means that the collaboration with her made a significant effect. She also assisted this project's PR efforts, by providing advance notice of the event and the posting the event on her Facebook page.

Ms. Aok Sokunkanha in the traffic safty video

Post before the event

Post after the event

Facebook page of Ms. Aok Sokunkanha

Press release	
Background	In this project, we could collaborate with news media company. We notified the press in advance of all JCC meetings and events. Then they were interviewed and reported in the next day's newspaper articles and TV news.
Notices	  News article and news broadcasting regarding the 3rd JCC meeting

(e) Holding of seminars

<Planned Activities>

- In order that the outcomes of the project may become widely known and be put to use, and in order that comments may be heard, we hold approximately 15 seminars locally in Cambodia for those who are involved on

the Cambodian side, apart from training in Japan.

- We think that having the MPWT take the lead in presenting the content deepen their staff's understanding of this project and also stimulate a sense of responsibility on their part. In addition, we believe that having those in charge at the MPWT carry this out has benefits both in terms of ongoing inspiration after the end of the project and in terms of permeation into other ministries and agencies.

<Actual Activities>

- As already stated in the explanation of vehicle registration and vehicle inspection, several seminars have been held for the purpose of learning the guidelines of registration and vehicle inspection as follows.

Table 65 Seminars which are described in vehicle registration and inspection part

Vehicle Registration	• A seminar on Vehicle registration and operation guideline in Siem Reap (Sep 2018) • A seminar in Kampong Cham (Sep 2018) • A seminar in Kep (Jan 2019) • A seminar in Mondolkiri (Feb 2019)
Vehicle Inspection	• A seminar on the designated certification factory system and equipment requirements and management system (May 2018) • Implementation of 3-day training covering the general inspection guidelines (Jun 2018) • Conduct of 1-day training to affect calibrate inspection equipment (Jun 2018) • Conduct of training based on vehicle inspection guidelines (Dec 2018)

- Besides these seminars, we also held the Press briefing and seminars for university students as follows;

① **Press Briefing held by the Embassy of Japan and JICA Cambodia**

- Date: January 30, 2018
- Venue: Embassy of Japan
- Purpose: To disseminate project activities and results through the medias
- Program:
- Briefing on the project by Chief advisor, Mr. Ota Masaya
- Presentation on project activities by Deputy Director General, Mr. Suon Vanhong
- Q&A session

*The press briefing was attended by 15 members of the medias



② **Seminars for university students**

- In order to raise the recognition of vehicle registration, the following seminars for university students are held in 2018.

Date	Province	Venue	Participants
June 11to 12, 2018	Siem Reap	Build Bright University (BBU)	200
June 15, 2018	Sihanoukville	South East Asia University	100
June 16, 2018	Takeo	BBU	100
June25, 2018	Banteay Meanchey	University of Management and economics	100
June26, 2018	Battambang	BBU	110
June29, 2018	Mondulkiri	BBU	90

BBU in Siem Reap

BBU in Siem Reap

South East Asia University in Siem Reap

South East Asia University in Siem Reap

BBU in Sihanoukville

BBU in Sihanoukville

BBU in Takeo

BBU in Takeo

BBU in Takeo

BBU in Takeo

2 Achievements of the Project

- In order to confirm the progresses of the Outputs and Project Purpose achieved, C/P and Japanese experts monitored the progresses based on the Monitoring System (MS: refer to the Annex 1-X). The specific contents of the MS are as follows:
    - Components of PDM (narrative summary, indicators, means of verification);
    - Monitoring method (persons/organizations in charge, frequency, remarks);

    - Target value (baseline value, target value); and
    - Achievements of each financial year (FY 2017, 2018, and 2019).

- The project activities were monitored according to the above items, and the achievements were filled out in the MS on the basis of the project outcomes.
- In the first half of the project, we are planning seminars that will be led by the consultant team, and the content of the seminars will be shown to the MPWT. However, we expect that seminars from April 2017 onwards will be held primarily by the MPWT, and that the consultant team will provide support in carrying out the seminars.
- Even at the first seminar, however, we plan to provide necessary support, such as in the form of materials, so that the MPWT can, as much as possible, explain the portions that regard the situation and issues in Cambodia.
- We think that having the MPWT take the lead in presenting the content will deepen their staff's understanding of this project and also stimulate a sense of responsibility on their part. In addition, we believe that having those in charge at the MPWT carry this out will have benefits both in terms of ongoing inspiration after the end of the project and in terms of permeation into other ministries and agencies.
- In addition, we project that holding the seminars for the different fields (vehicle registration, vehicle inspection, and IT) at roughly the same time will arouse, in those in charge of the presentations, a feeling of competitiveness towards the other fields, and we think it is desirable that this feeling of competitiveness be put to work alongside increased involvement and understanding on the part of the parties concerned.
- After a seminar has been held, participants will be surveyed to the extent possible; their degree of comprehension, their concerns, their doubts, etc., will be picked up on and reflected in subsequent work and seminars.
- In seminars for MPWT staff and in public-relations activity, it is projected that the roles of the consultant team and the long-term experts will be as indicated below.

2.1 Outputs and indicators

2-1-1 Output 1

(1) Indicator 1: Approval of the Guideline for vehicle registration by MPWT

Although the Guideline for vehicle registration has already been developed and improved accordingly, the approval procedure is approaching to the final approval. Guideline will be approved by December 2019 after the endorsement of the prakas on the procedures of general vehicle registration.

(2) Indicator 2: Implementation of the vehicle registration along the checklist of vehicle registration procedure

The Project confirms that 26 provinces carry out vehicle registration procedure along the checklists of new vehicle, deletion, and transfer registration in the Guideline (refer to the Appendix 1 of the Guideline: "Checklist for Operating Vehicle Registration Administrative System"). However, as DPWT implementing vehicle deletion is zero, the measures for deletion shall be taken more intensely after the termination of the Project.

The vehicle registration administration system would be strengthened if the registration procedure is carried out along the checklists in the Guideline. In order to confirm the effective utilization of these checklists at each GDLT/DPWT registration office, the Project prepared the monitoring form (Form 3: Checklist of Vehicle Registration Procedure) to be filled quarterly by DPWT registration offices as indicated in Table 48.

Table 66: Results of Form 3 to be filled by DPWT registration offices

No.	Capital/Province	1st Quarter (March)			2nd Quarter (June)			3rd Quarter (September)			4th Quarter (December)		
		VR	TR	DR	VR	TR	DR	VR	TR	DR	VR	TR	DR
1	Phnom Penh (GDLT)	✓	✓	N/A	✓	✓	N/A						
2	Phnom Penh (Chamkar Dong)	✓	✓	N/A	✓	✓	N/A						
3	Banteay Meanchey	✓	✓	N/A	✓	✓	N/A						
4	Battambang	✓	✓	N/A	✓	✓	N/A						
5	Kampong Cham	✓	✓	N/A	✓	✓	N/A						
6	Kampong Chhnang	✓	✓	N/A	✓	✓	N/A						
7	Kampong Speu	✓	✓	N/A	✓	✓	N/A						
8	Kampong Thom	✓	✓	N/A	✓	✓	N/A						
9	Kampot	✓	✓	N/A	✓	✓	N/A						
10	Kandal	✓	✓	N/A	✓	✓	N/A						
11	Koh Kong	✓	✓	N/A	✓	✓	N/A						
12	Kratie	✓	✓	N/A	✓	✓	N/A						
13	Mondulkiri	✓	✓	N/A	✓	✓	N/A						

14	Preah Vihear	✓	✓	N/A	✓	✓	N/A						
15	Prey Veng	✓	✓	X	✓	N/A	N/A						
16	Pursat	✓	✓	N/A	✓	✓	N/A						
17	Ratanak Kiri	✓	✓	N/A	✓	✓	N/A						
18	Siem Reap	✓	✓	N/A	✓	✓	N/A						
19	Preah Sihanouk	✓	✓	N/A	✓	✓	N/A						
20	Steung Treng	✓	X	X	✓	✓	N/A						
21	Svay Rieng	✓	✓	N/A	✓	✓	N/A						
22	Takeo	✓	✓	N/A	✓	✓	N/A						
23	Oddar Meanchey	✓	✓	X	✓	N/A	N/A						
24	Kep	✓	N/A	N/A	✓	✓	N/A						
25	Pailin	✓	✓	N/A	✓	✓	N/A						
26	Tboung Khmum	✓	✓	X	✓	✓	N/A						

Source: GDLT (Form 3)

VR: vehicle registration; TR: transfer registration; DR: deletion registration

If DPWT registration offices regularly submit the Form 3, GDLT is able to check the progress of new vehicle, transfer, and deletion registration. In this way, the Form 3 is a communication tool between GDLT and each registration office. Because the registration status across the country is recognized at a glance through the Form 3, GDLT comes to be able to effectively give instructions and some advice to registration offices. Also, when GDLT visits some provinces, they shall verify the Form 3 filled by DPWT registration offices.

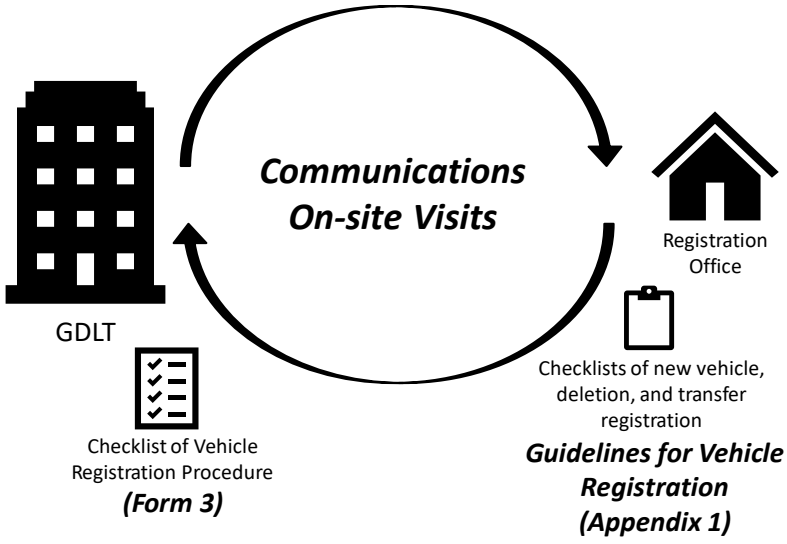


Figure 54 Utilization of the Checklist of Vehicle Registration Procedure (Form 3)

2-1-2 Output 2

(1) Indicator 1: Approval of the Guideline of GDLT for vehicle inspection by MPWT

The Guideline of GDLT for vehicle inspection has already been approved by MPWT.

(2) Indicator 2: Implementation of the vehicle inspection along the checklist of vehicle inspection

Vehicle inspectors at two pilot centers at Russeykeo (CMVIC) and Boengbaitong (HK) in Phnom Penh carry out visual inspection through the checklists (CL) of appearance and underbody inspection attached to the Vehicle Inspection Guideline (refer to "3-2 Checklist for Visual Inspection" of the Guideline). Both pilot inspection centers properly keep good documentation as shown in the Table 49 and Figure 53. In this way, the Project could obtain strong commitments from pilot inspection centers.

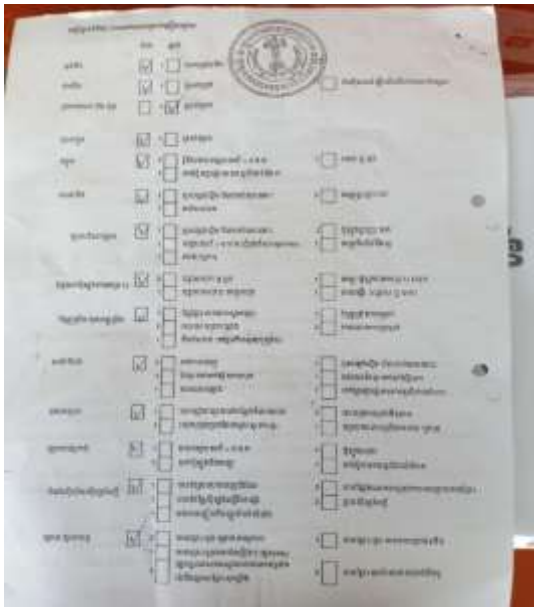
Table 67: Number of checklists (CL) at pilot inspection centers (Dec. 2018 – Apr. 2019)

	CMVIC at Russeykeo	HK at Boengbaitong
No. of CL in Dec. 2018	2,914	1,879
No. of CL from Jan. to Apr. 2019	26,647	6,428
Total number of CL	29,561	8,307

CMVIC at Russeykeo

HK at Boengbaitong

Inspection CL in April at Russeykeo



Inspection CL in April at Boengbaitong

Figure 55 Utilization of the Checklist of Vehicle Inspection (Form 4)

After the termination of the Project, in order to confirm the effective utilization of these checklists at inspection centers across the country, the Project prepares the monitoring form (Form 4: Checklist of Vehicle Inspection) and monitors the progress on a regular basis.

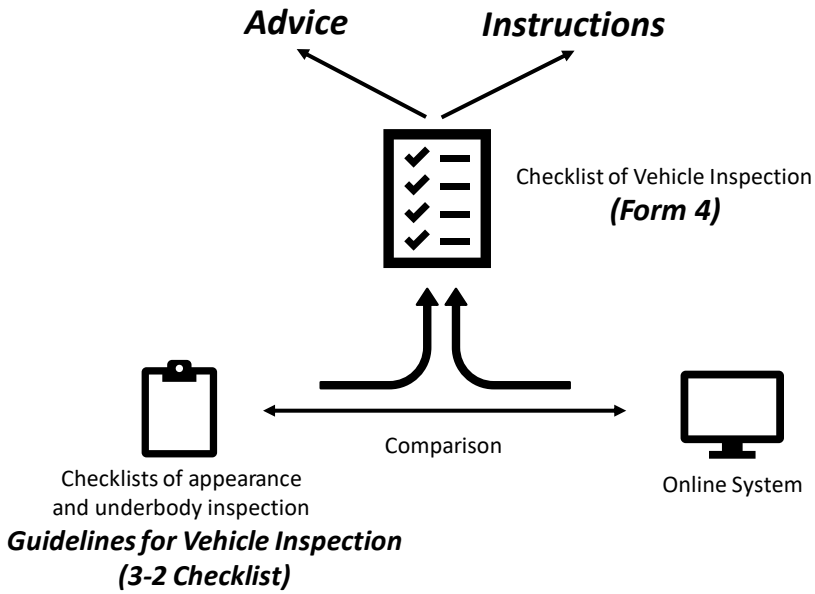


Figure 56 Utilization of the Checklist of Vehicle Inspection (Form 4)

The necessary items of the Form 4 are indicated in the Table 50. GDLT/DPWT confirms the contents of checklist results in the following procedure.

In the first place, GDLT/DPWT puts the pass-fail result of (A) paper-based checklists for appearance and underbody inspection into the Form 4. Afterwards, GDLT/DPWT checks the pass-fail status of vehicle inspection by reference to (B) online system in searching through the Bill Number, and they confirm any deficiencies compared with the pass-fail status of checklists for appearance and underbody inspection. In this way, they are able to regard the vehicle inspection as "appropriately executed" if both results between (A) the paper-based checklists and (B) the online system are consistent. After the termination of the Project, therefore, GDLT/DPWT shall follow this procedure to monitor the vehicle inspections across the country.

Table 68 Monitoring Checklist (Form 4)

Bill Number	Vehicle Number Plate	(A) Inspection Results on paper-based Checklist	(B) Inspection Results on Online System
		□ Pass □ Fail □N/A	□ Pass □ Fail
		□ Pass □ Fail □N/A	□ Pass □ Fail
		□ Pass □ Fail □N/A	□ Pass □ Fail

2-1-3 Output 3

(1) Indicator 1: Implementation of the recommendations for improvement described in the IT short-term strategy

There are five (5) recommendations for improvement described in the IT short-term strategy as shown below, and all of them have already been completed as shown in the Table 51.

Table 69 Progress of the Short-term Strategy

Short-term Strategy	Status
[Application] (a) Set the interface specifications for information sharing with external administrative organizations (MoI, GDT (Tax), and GDCE)	Done
(b) Conduct the security diagnosis of the IT system	Done
[IT Infrastructure] (c) Suggest IT infrastructure requirements	Done
(d) Support introducing servers and middleware	Done
[Human Resources] (e) Suggest operational rules for online application system	Done

(2) Indicator 2: Approval of the roadmap for the IT system by MPWT

The roadmap for the IT system has already been developed, and it is continuously updated for the improvement by the end of the Project. In terms of the approval of the roadmap, if the Annual Report of MPWT in 2019 (published around August 2020) includes the roadmap for IT system, the Project regards this fact as the approval of the roadmap by MPWT.

2-1-4 Output 4

(1) Indicator 1: Self-rating of MPWT/DPWT staff on vehicle inspection, maintenance, etc.

From the aspects of the evaluation items of vehicle inspection and maintenance in Table 52, the self-rating survey was carried out, and the total rating on average was extracted through the calculation of each question item (nine (9) questions). In conclusion, this indicator was not achieved because the target value is 55.0% whereas the result was 50.3%. However, as the tendency of self-rating result is gradually increased, there is a prospect that the next result will attain to the target value if MPWT continuously makes efforts to implement vehicle inspection after the Project.

Table 70 Self-rating result of MPWT/DPWT staff on vehicle inspection and maintenance

	1st survey (June 2017) 39 respondents	2nd survey (May 2018) 13 respondents	3rd survey (June 2019) 25 respondents
Q1. Importance of vehicle inspection and maintenance	45.5%	55.8%	57.0%
Q2. Legal system for vehicle inspection	39.5%	44.2%	49.0%
Q3. Relationship between vehicle safety and vehicle inspection & maintenance	39.1%	46.2%	49.0%
Q4. Functions of vehicle inspection centers	41.0%	51.9%	57.0%
Q5. Knowledge of vehicle inspection and maintenance	35.9%	50.0%	53.0%
Q6. Importance of awareness-raising activities on vehicle inspection and maintenance	73.7%	84.6%	72.0%
Q7. Planning capacity of awareness- raising activities on vehicle inspection and maintenance	35.3%	42.3%	44.0%
Q8. Implementation capacity of awareness-raising activities on vehicle inspection and maintenance	35.3%	34.6%	44.0%
Q9. Ensuring of financial resources necessary for awareness-raising activities on vehicle inspection	11.2%	9.6%	28.0%
Total Rating on Average (Q1 – Q9)	39.6%	46.6%	50.3%

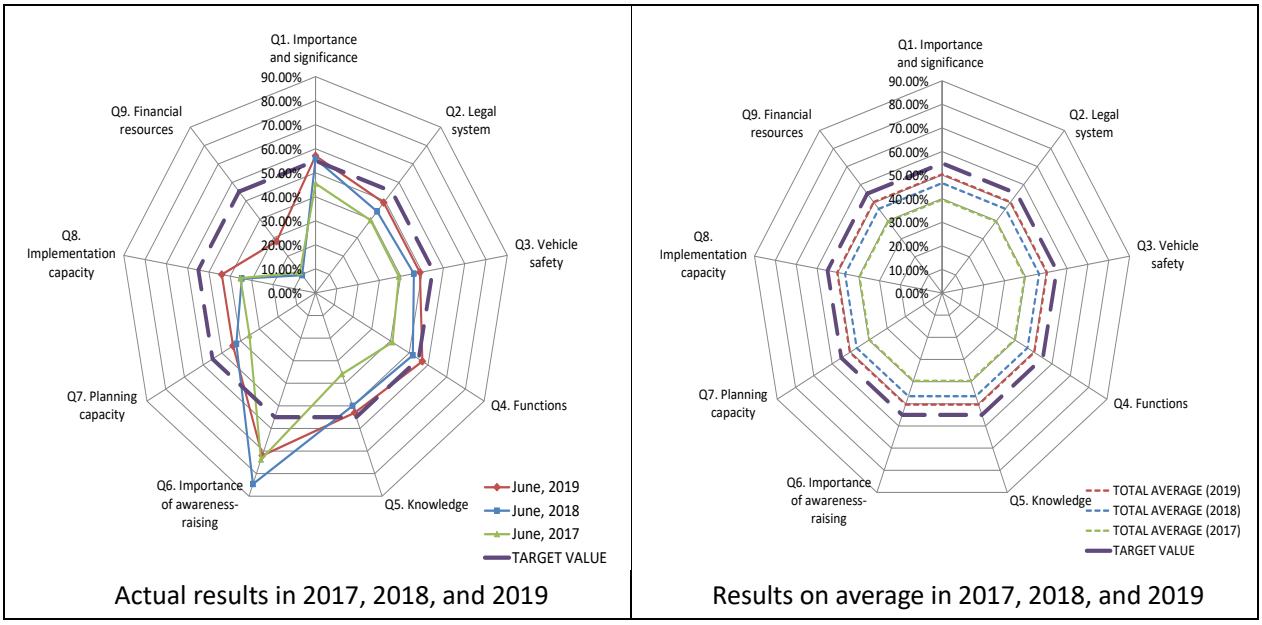
Source: Results of the Questionnaire Survey (Form 5) of the Monitoring System

As shown above, the questionnaire result indicates that MPWT/DPWT staff in charge of vehicle inspection recognizes the importance of awareness-raising activities on vehicle inspection (Q6: 72.0%) even though this

percentage was decreased from the result of previous year. On the other hand, the self-rating on ensuring of financial resources for PR activities (Q9: 28.0%) has increased by approximately 20% from previous year. Although this is still not a high percentage, MPWT/DPWT tries to ensure the financial resources on their own initiative. Because of the self-rating result of financial resources, it is considered that the implementation capacity for PR activities (Q8: 44.0%) has increased by 10%. For example, the Road Safety Department and DPWT in Siem Reap held traffic safety PR event in collaboration with SUZUKI (Japanese vehicle dealer), and the Project provided the information related to vehicle inspection for the participants of the event.

In this way, this is one of possibilities that DPWT is able to collaborate with the Road Safety Department to promote vehicle inspection because the Department carries out awareness-raising activities for road safety on a regular basis. Thus, if it is difficult to secure financial resources exclusively for the public awareness of vehicle inspection, it would be an appropriate approach to promote PR activities.

As shown in Figure 55, moreover, since the self-rating results are an unbalanced polygonal shape, negative rating items shall be improved for a balanced round shape for the future's operations of vehicle inspection.



Actual results in 2017, 2018, and 2019 | Results on average in 2017, 2018, and 2019

Figure 57 Tendency of self-rating result of MPWT/DPWT staff on vehicle inspection and maintenance in 2017, 2018, and 2019 (actual and average results)

(2) Indicator 2: Number of PR activities implemented by MPWT staff

MPWT staff carried out PR activities several times so far, and further details are shown in the Table 53.

Table 71: PR activities carried out by MPWT Staff

No	Date	PR events	Responsible department in MPWT	Number of visitors	Contents
1	21st October 2017	BarCamp 2017 at Institute of Technology Cambodia (ITC)	IT・PR Department (10 staff including Director)	50[7]	IT・PR Department established the booth of online application for vehicle registration and inspection. The Department promoted PR activities and distributed novelty goods of the Project to visitors, such as leaflets, pens, and eco bags.
2	29-30th November 2017	Business Forum and ICT Exhibition 2017 at Siem Reap	IT・PR Department (6 staff including Director)	300[8]	
3	22-25th February 2018	Japan-Cambodia Kizuna Festival 2018	IT・PR Department (15 staff including Director)	Around 10,000	The contents are the same as above. Also, a number of novelty goods were distributed as follows. Project pens: 800 Project eco bags: 450 The IT/PR Director had a presentation on the Online Registration System on 23rd February.
4	11-12th June 2018 (1)	Vehicle Registration and Inspection Promotion Event: (1) Build Bright Univ. (BBU) and South East Asia Univ. (USEA) in Siem Reap; (2) BBU in Sihanoukville; (3) University of Management and Economics in Banteay Meanchey; and (4) BBU in Takeo.	Land Transport Department (7 staff)	200	PR events for the online system of vehicle registration and inspection were carried out at universities. The Department distributed novelty goods of the Project to students, such as leaflets and eco bags.
5	15th June 2018 (2)			100	
6	17th June 2018 (3)			100	
7	24th June 2018 (4)			100	
8	1-7th October 2018	Vehicle Registration and Inspection Promotion Event	IT・PR Department (6 staff) Land Transport Department (4 staff)	2,000	PR event for vehicle registration and inspection system was carried out at AEON Sen Sok City. H.E. Peou Mally, Secretary of State, had opening speech for the ceremony of PR event on 5th. Also, presentations on online system for vehicle registration and inspection were delivered for 3 days (5-7th).

[7] The number of visitors indicates the number of novelty goods distributed to visitors.
[8] Ibid.

No	Date	PR events	Responsible department in MPWT	Number of visitors	Contents
					Moreover, famous Cambodian singer, Ms. Aok Sokunknha, was invited to the Event for the promotion of vehicle registration and inspection on the final day.
9	17th -19th December 2018	Vehicle Registration and Inspection Promotion Event	IT・PR Department (5 staff) Land Transport Department (6 staff)	600	PR event for vehicle registration and inspection system was carried out at AEON MALL Phnom Penh. H.E. Peou Mally, Secretary of State, had opening speech for the ceremony of PR event on 17th. Also, presentations on online system for vehicle registration and inspection were delivered on the same day.
10	30th March 2019	Traffic safety PR event in Siem Reap	Staff of DPWT Siem Reap (10 staff)	100	Traffic safety PR event was held by the collaboration with Road Safety Department and SUZUKI corporation (Japanese vehicle dealer) and DPWT in Siem Reap. As PR activities for vehicle owners, education for high school students, the Project provided the information related to vehicle registration and inspection in addition to road safety information in order to raise understandings of participants.
11	22nd -24th May 2019	Ceremony of Royal Ploughing day in Takeo	DPWT Takeo (5 staff)	200	The national festival to celebrate Royal Ploughing Day was held in Daunkeo Stadium, Takeo province. In collaboration with DPWT Takeo, JICA/MVRI disseminated the project activities at the booth. There were many booths which promote the special products from each province and also the activities of each ministry.
12	24th -25th June 2019	Vehicle registration and inspection promotion event	GDLT: 5 staff IT/PR Dept: 10 staff MPWT staff	500	A vehicle registration and inspection promotion event at AEON MALL Sen Sok City. The vehicle registration and inspection leaflet, project pamphlet, voluntary regular vehicle checkup guide, and eco bags were distributed to the visitors to the event. H. E. Sun Chanthol, Senior Minister of Public Works and Transport attended the opening ceremony of the event on

No	Date	PR events	Responsible department in MPWT	Number of visitors	Contents
					24th June 2019. The summary of the project activities was reported by H.E Chhoun Voun, Director General, General Department of Land Transport.

2.2 Project Purpose and indicators

The Project concluded that the Project Purpose was achieved, *i.e.*, the administration of vehicle control by MPWT was improved, because of the accomplishments of the indicator 1 (the number of vehicle registration and vehicle inspection) and indicator 2 (satisfaction rating of the applicants exercising vehicle registration), as well as the indicator 3 (performance assessment of vehicle inspection at the centers) which was nearly achieved as explained below.

(1) Indicator 1: Numbers of vehicle registration procedure (vehicles registered, disused, and transferred) and vehicle inspection implemented per annum

In terms of vehicle registration procedure, the target value (70,000) was achieved in 2018 since the number of vehicles registered per annum has attained to 77,195 as shown in the Table 53. Also, the target values of vehicles disused (14) and transferred (14,000) were achieved in 2018 because these numbers were 16 and 17,085 respectively.

Moreover, as the numbers of vehicle registration procedure, vehicle disused and transferred were 45,196; 15; and 7,210 as of 31 May 2019, just five months passing away, it will be expected that these target values will be achieved by December 2019. However, as deletion cases are mostly from the embassies and international organizations (not from private vehicle owners), the vehicle deletion shall be promoted for private owners more widely from now on.

Regarding vehicle inspection, the number of vehicle inspection implemented has attained to 241,911 in 2018 and 108,388 as of 31 May, 2019. Thus, there is a prospect that the number of vehicle inspection will meet the target value (250,000) by December 2019 if the number of vehicle inspection has continuously increased at the same rate of the past five months.

Furthermore, the number of vehicle inspection was officially announced with 193,706 when the target value (250,000) was established in 2017. At a later point, although this was modified in **174,188** in May 2019, the Project keeps the same target value as it was.

Table 72 Trend in the numbers of vehicle registration procedure and vehicle inspection implemented per annum

	Baseline Value (2016)/ Target Value	2017	2018	2019 (As of 31st May)
Vehicle Registration Procedure				
Number of vehicles	Baseline:60,794	60,400	77,195	45,176

registered per annum	Target:70,000			
Number of vehicles disused per annum	Baseline:N/A Target value: 14	8	15	15
Number of vehicles transferred per annum	Baseline:5,800[9] Target: 14,000[10]	13,033	17,085	7,210
Vehicle Inspection				
Number of vehicle inspection implemented per annum	Baseline: 193,706[11] Target: 250,000	177,806	241,911	108,388

Source: IT System, etc.

(2) Indicator 2: Satisfaction rating of the applicants exercising vehicle registration procedure

From the aspects of the evaluation items of vehicle registration procedure in Table 55, the satisfaction survey was carried out, and the total rating on average[12] was extracted through the calculation of each question item (13 questions). In conclusion, this indicator was achieved because the target value is 60.0% whereas the result is 61.8%.

[9] Since the new IT system was established in August 2016, this baseline value was calculated on the basis of the record of 10 months (September 2016 to June 2017).

[10] In June 2018, the Project set the new target with 14,000 adding 1,000 to the achievement of 2017 from the initial target with 6,400.

[11] As explained in main text, although this figure was modified as **174,188** in May 2019, the Project keeps the same target value to be achieved in 2019.

[12] The respondents put the ratings from "1" to "5" in each question item ("5" is the highest possible rating). Each rating is calculated as follows: "1" = 0%; "2" = 25%; "3" = 50%; "4" = 75%; and "5" = 100%.

Table 73 Survey result of applicants' satisfaction with vehicle registration procedure

	1st survey (June 2017) 74 respondents	2nd survey (May 2018) 101 respondents	3rd survey (June 2019) 113 respondents
Q1. Convenience of vehicle registration procedure	45.8%	60.3%	66.2%
Q2. Preciseness of vehicle registration procedure	50.4%	63.0%	66.4%
Q3. Rationalization and efficiency of vehicle registration procedure	48.2%	65.2%	66.2%
Q4. Instructions and directions on vehicle registration procedure	51.4%	62.9%	64.2%
Q5. Responses to the inquiries about vehicle registration procedure	49.7%	64.3%	68.1%
Q6. Support services of vehicle registration procedure	45.4%	61.1%	64.4%
Q7. Contents of the guide on vehicle registration procedure	30.6%	53.3%	58.5%
Q8. Information sharing of vehicle registration procedure	20.3%	41.1%	48.7%
Q9. Encouragement of road tax payment, vehicle inspection, and registration procedure of vehicles disused and transferred	37.7%	59.9%	56.0%
Q10. Time required for handling application services	43.2%	59.7%	60.8%
Q11. Time required for paying registration charges	42.8%	56.2%	62.1%
Q12. Time required for receiving ID card of vehicle registration	42.1%	60.4%	60.8%
Q13. Time required for receiving car registration plate	40.8%	60.2%	60.6%
Total Rating on Average (Q1 – Q13)	42.6%	59.0%	61.8%

Source: Results of the Questionnaire Survey (Form 1) of the Monitoring System

By observing the results of each item, they exceeded the target value other than three items and closed to be a "round shape." It is a good tendency compared with the previous survey results. Specially, one of three items below the target value was quite lower than the other two items, *i.e.*, "Q8: Information sharing of vehicle registration procedure at a registration office/through the online system (48.7%)." Since it indicates that they need more specific and visible instructions for the registration procedure, this shall be improved even after the termination of the Project. Furthermore, there are some suggestive comments from the applicants as follows:

[Information sharing]

- Clarify the price list of number plate by categories on the monitor screen at the service window;
- Clarify the price of number plate between Phnom Penh and provinces;

- Display the instructions with the information notice/board where to go and how to proceed with the registration procedure;
- Request to have the information desk to provide applicants with the registration procedures;

[Procedure]

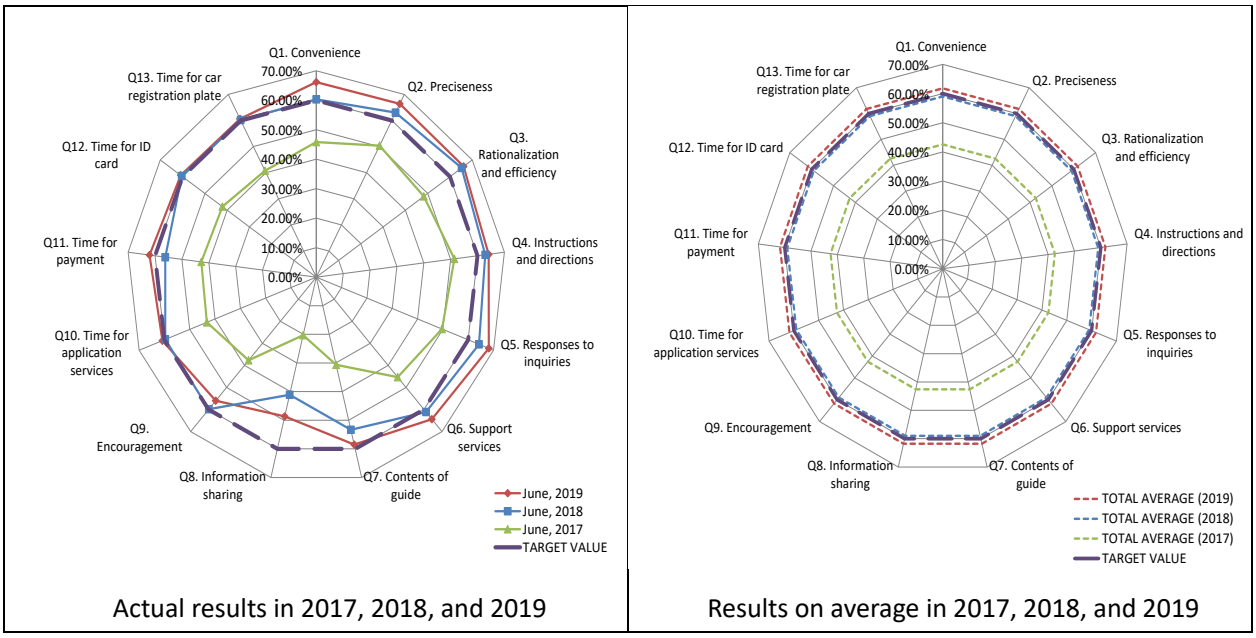
- Difficult to proceed with vehicle transfer if previous vehicle owners do not attend with new owners because the document of vehicle transfer needs the fingerprints of previous owners[13];

[Online system]

- Request for only phone number or Facebook account to sign up a user account in the online system (not email address);
- Difficult to understand some parts of Khmer in the online system;

[Services]

- Request DPWT to provide faster services of making plate number, vehicle ID, and driving license for applicants; and
- Shall be more friendly to applicants who came to ask the information at the service window.



Actual results in 2017, 2018, and 2019

Results on average in 2017, 2018, and 2019

Figure 58 Tendency of satisfaction ratings of the applicants exercising vehicle registration procedure in 2017 and 2018 (actual and average results)

(3) Indicator 3: Performance assessment of vehicle inspection at the centers by the staff of MPWT/DPWT and inspection centers

From the aspects of the evaluation items of inspection performance in Table 56, the performance assessment was carried out, and the total rating on average was extracted through the calculation of each question item (11

[13] It is very difficult for applicants to follow the transfer procedure, so they suggested that the local authority can witness on behalf of previous owners.

questions). In conclusion, this indicator was not achieved because the target value is 70.0% whereas the result was 68.8% (1.2% difference). However, as this result is just before the target value, there is a prospect that the future's result will reach the target value provided that the operations of inspection centers have continuously been improved even after the termination of the Project.

Table 74 Result of performance assessment of vehicle inspection at the centers by MPWT/DPWT and inspection centers

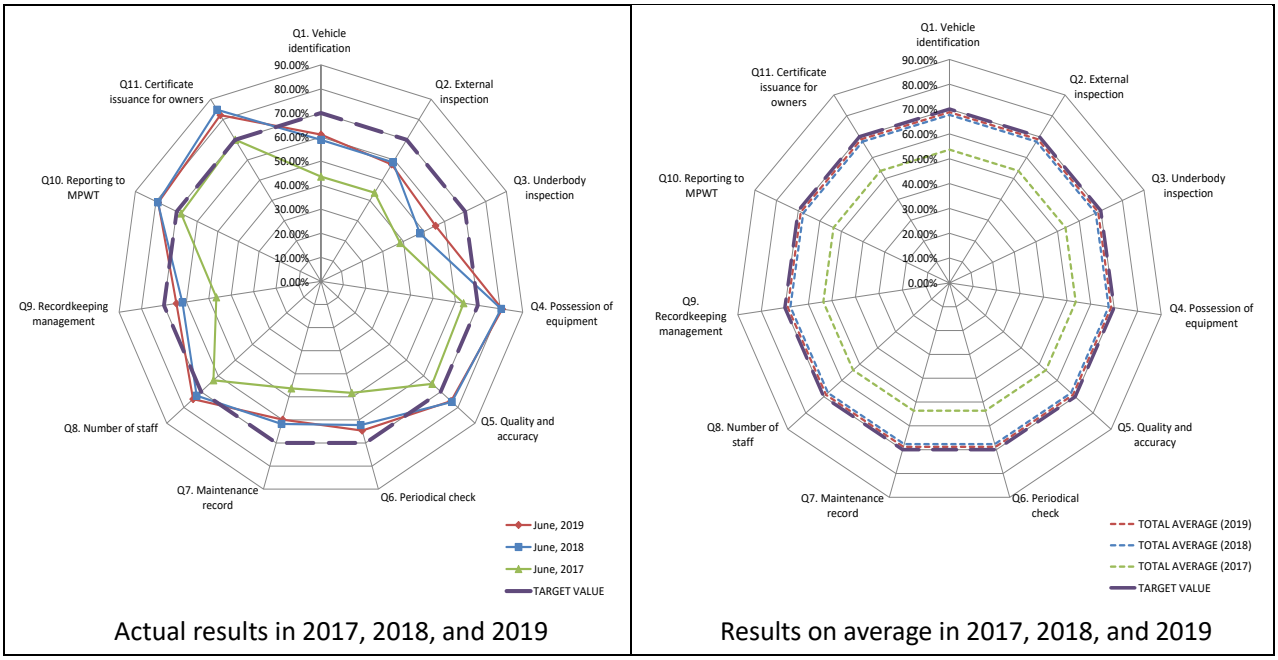
	1st survey (June 2017) 93 respondents			2nd survey (May 2018) 51 respondents			3rd survey (June 2019) 77 respondents		
	MPWT/ DPWT	CMVIC	**TOTAL**	MPWT/ DPWT	CMVIC	**TOTAL**	MPWT/ DPWT	CMVIC	**TOTAL**
Q1. Procedure of vehicle identification	41.7%	44.9%	**50.0%**	50.0%	61.8%	**58.8%**	57.9%	62.1%	**61.0%**
Q2. Procedure of external inspection	41.0%	45.8%	**48.1%**	48.1%	62.5%	**58.8%**	52.6%	59.5%	**57.8%**
Q3. Procedure of underbody inspection	43.0%	35.2%	**32.7%**	32.7%	53.3%	**48.0%**	50.0%	57.3%	**55.7%**
Q4. Possession of inspection equipment	58.3%	67.1%	**63.5%**	63.5%	86.2%	**80.4%**	75.0%	82.8%	**80.8%**
Q5. Quality and accuracy of inspection equipment	59.7%	68.5%	**67.3%**	67.3%	79.6%	**76.5%**	63.2%	79.7%	**76.0%**
Q6. Periodical check of inspection equipment	47.8%	48.6%	**51.9%**	51.9%	65.8%	**62.3%**	56.6%	67.2%	**64.6%**
Q7. Maintenance record of inspection equipment	48.6%	44.9%	**50.0%**	50.0%	65.8%	**61.8%**	54.2%	61.6%	**59.9%**
Q8. Number of the staff engaging in the vehicle inspection center	64.7%	61.6%	**67.3%**	67.3%	74.3%	**72.6%**	69.7%	76.3%	**74.7%**
Q9. Recordkeeping management of the inspection results	43.8%	48.6%	**46.2%**	46.2%	67.1%	**61.8%**	55.3%	67.5%	**64.5%**
Q10. Reporting of vehicle inspection records to MPWT	68.0%	67.9%	**75.0%**	75.0%	80.4%	**79.2%**	79.0%	79.0%	**79.0%**
Q11. Issuance of vehicle inspection certificate for the owners fully completing inspection	68.8%	70.8%	**78.9%**	78.9%	86.8%	**84.8%**	79.0%	83.2%	**82.1%**
Total Rating on Average (Q1 – Q11)	52.1%	54.8%	**57.1%**	57.1%	71.3%	**67.7%**	**63.2%**	**70.6%**	**68.8%**

Source: Results of the Questionnaire Survey (Form 2) of the Monitoring System

By observing the results of each item, although the total rating on average in 2019 was approaching to the target value, the rating results are still polygonal shape, not round one as shown in the Figure 5. It is desirable to come to a "round shape" balanced among each item.

Moreover, there are six (6) question items below the target value (70%), *i.e.*, "Q1: Procedure of vehicle identification (61.0%)", "Q2: Procedure of external inspection (57.8%)", "Q3: Procedure of underbody inspection (55.7%)", "Q6: Periodical check of inspection equipment (64.6%)", "Q7: Maintenance record of inspection

equipment (59.9%)", and "Q9: Recordkeeping management of the inspection results, *e.g.*, the number of inspection implemented and failed (64.5%)." Visual inspection (from Q1 to Q3) and recordkeeping management (Q7 and Q9) were not sufficiently performed at the vehicle inspection centers. According to the comments of DPWT staff, they require additional opportunities for the technical training on vehicle inspection based on the vehicle inspection guideline because their skills and knowledge of vehicle inspection are still not sufficient. Therefore, it is important for them to improve the capacities of visual inspection and management (recordkeeping management) at the vehicle inspection centers, including the periodical check of inspection equipment (Q6). In connection to this, a comment from GDLT/DPWT official highlights that inspection centers need the technical skill to monitor and verify the quality of calibration equipment by themselves.



Actual results in 2017, 2018, and 2019

Results on average in 2017, 2018, and 2019

Figure 59 Tendency of performance assessment of vehicle inspection at the centers by MPWT/DPWT and CMVIC in 2017, 2018, and 2019 (actual and average results)

As shown in the Figure 58, furthermore, there was the assessment gap between MPWT/DPWT and CMVIC. Whereas the performance assessment by CMVIC staff who practically carry out vehicle inspection is higher than the one by MPWT/DPWT staff who put slightly strict ratings. However, both radar charts are a similar shape and likely to be a same tendency. In the future, therefore, inspection centers aim at overlapping the rating results between MPWT/DPWT and CMVIC and to expand the area with round shape.

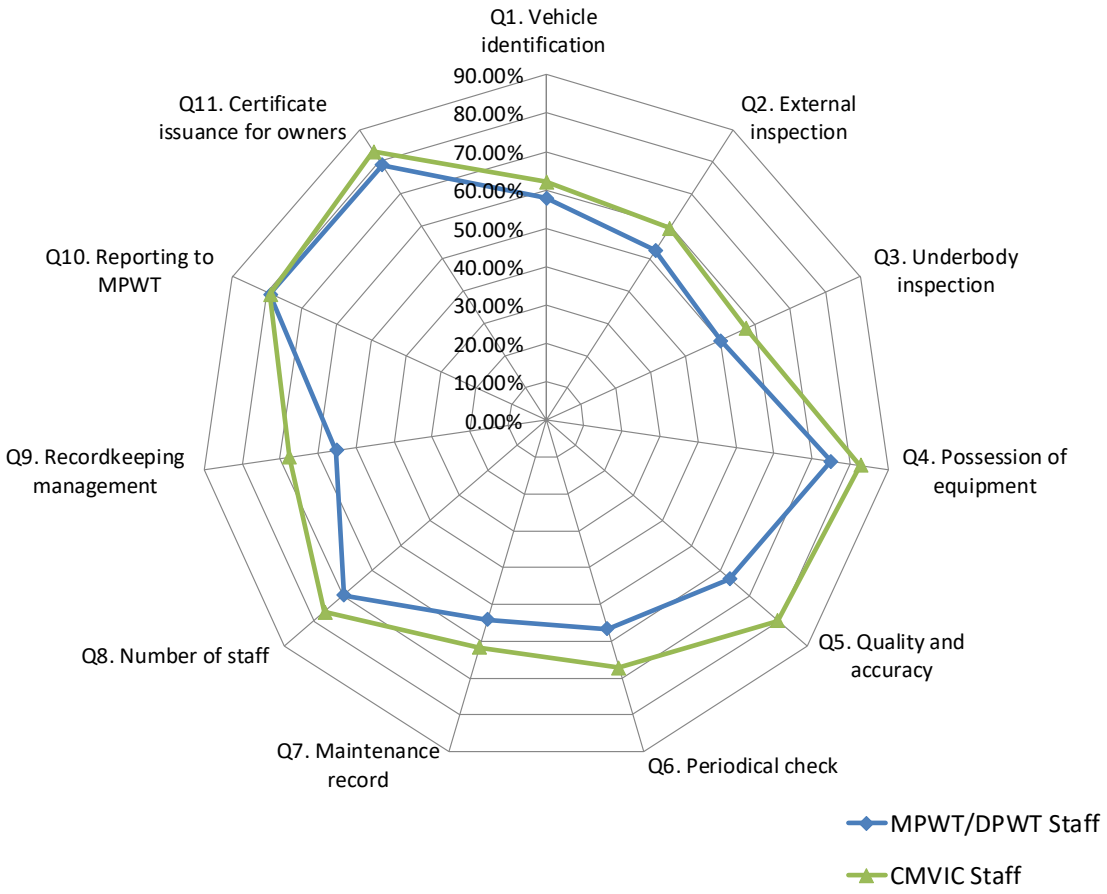


Figure 60 The results of performance assessment of vehicle inspection at the centers by MPWT/DPWT and CMVIC (June 2019)

3 History of PDM Modification

3.1 Transition of PDM_1 to PDM_3

In order to practically and effectively utilize the PDM, the indicators and means of verification in the PDM were partially modified, including target value setting of the indicators (from PDM_2 to PDM_3), in consultation with the counterparts, and the PDM was revised with their consensus (refer to the PDM of Annex 3). Only one part of the narrative summary was adjusted, and the changes are indicated in the Table 57 in detail.

Table 75 Modification of the PDM_1 to PDM_3

Components of the PDM		Corrections
・Indicators ・Means of Verification	Overall Goal	Indicator 1: PDM_2 was newly established with the indicator to confirm the information use of vehicle registration by the MPWT and ministries concerned. Means of Verification:

		PDM_2 explicitly put the checklist on the information use of vehicle registration based on the indicator.
		Indicator 2: PDM_2 clearly described to fulfill the certification criteria of MPWT at vehicle inspection centers.
		Indicator 3: The original indicator 1 was replaced with this indicator, and the definitions of the "vehicle inspection implemented" and "vehicles necessary for the inspection" were clarified (refer to the footnotes of the PDM). Means of Verification: Not only the IT system but also other means, such as hard copies, are considered at this moment. Thus, "etc." is added.
	Project Purpose	Indicator 1: "Vehicle registration certificate" was replaced with "vehicle registration procedure" including not only vehicles registered but also vehicles disused and transferred (initially vehicles disused were placed in the indicator 1-2, Output 1). Also, the vehicle inspection certificate was changed to "vehicle inspection implemented" as shown in the indicator 3 of the Overall Goal. Means of Verification: Not only the IT system but also other means, such as hard copies, are considered at this moment. Thus, "etc." is added.
		Indicator 2: The "vehicle owners" were replaced with "applicants." Means of Verification: This was changed as done in the indicator. Also, the "registration office" is deleted because car dealer shops are in charge of vehicle registration procedure on behalf of MPWT/DPWT.
		Indicator 3: The respondents of questionnaire survey were changed from vehicle owners to the staff of MPWT and inspection centers. Also, they assess the performance of vehicle inspection at the centers. Means of Verification: The respondents were changed from vehicle owners to the staff of MPWT and inspection centers based on the indicator.
	Output 1	Indicator 1-2: Because the number of vehicles disused was shifted to the indicator 1 of the Project Purpose, this indicator was replaced with the proper implementation of vehicle registration procedure as an alternative indicator. Means of Verification: This was changed to the checklist of vehicle registration procedure based on the indicator.
	Output 2	Indicator 2-1 and Means of Verification: Because of the organizational change, "GDT" was changed into "GDLT."
		Indicator 2-2: This indicator clearly describes to fulfill the certification criteria of MPWT at vehicle inspection centers as shown in the indicator 2 of the Overall Goal. Means of Verification:

		"Vehicle inspection" was added in front of the checklist.
	Output 3	Indicator 3-1: The "project" was replaced with the "recommendations for improvement."
		Indicator 3-2: The approval of the roadmap is done by the MPWT only.
	Output 4	Indicator 4-2: MPWT staff is explicitly described as the implementers of the PR activities.
Activity 1-1		"MPTC and private sector" was deleted from this activity. The former was cancelled because the NiDA system is not utilized by the Project. With reference to the latter part, the Project may ask for their supports as needed.

Note: *Italic* means the modifications of PDM_2 into PDM_3.

3-2 Transition of PDM_3 to $PDM_{3\text{-}2}$

Target values of the indicators were mainly modified from PDM_3 to $PDM_{3\text{-}2}$ as indicated in the Table 58.

Table 76 Modification of the PDM

Components of the PDM	Corrections
Overall Goal	Indicator 2: As there are 14 vehicle inspection centers meeting the requirements defined in the Guideline, the target value is changed from 12 to 14. Although it is not easy to retain the number of inspection centers with the specific requirements after the termination of the Project, this challenging situation shall be sustained for the achievement of the Overall Goal.
Project Purpose	Indicator 1: Although the target of transfer registration is 6,400, the achievements were 13,033 in 2017 and 6,950 as of May in 2018. Therefore, the Project sets the new target with 14,000 adding 1,000 to the last year's achievement.
Output 3	Indicator 3-1: The target value was changed from four (4) to five (5) recommendations because the Cambodian side requested additional short-term strategy, "To support introducing servers and middleware." The strategy was approved in the 3rd JCC.

Note: *Italic* means the modifications of $PDM_{3\text{-}1}$ into $PDM_{3\text{-}2}$.

4 Others

4.1 Results of Environmental and Social Considerations (if applicable)

N/A

4.2 Results of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

N/A

Ⅲ Results of Joint Review

1 Results of Review based on DAC Evaluation Criteria

1.1 Relevance

[Government Policy in Cambodia]

MPWT is responsible for implementing the national policy, *i.e.*, "National Strategic Development Plan (NSDP)," concerning public works. According to the "Overview of the Transport Infrastructure Sector in the Kingdom of Cambodia 2018 (6th Edition)," MPWT requires to promote the following operations in the road transport sector:

- Continue enforcing the Ministerial Decrees (Prakas) on the vehicle registration procedure;
- Reduce the time for issuing vehicle registration, license plate, and driving license;
- Improve the officers' capacity; and
- Modernize the vehicle registration and inspection system using IT system.

In this way, as the government of Cambodia highlights the administration of vehicle control, the MVRI Project is consistent with the direction of the development plan of Cambodia.

[Government Policy in Japan]

"Improving the quality of life" is one of the priority areas of the "Rolling Plan for Cambodia (2018)" and undertakes the development of urban living environment through water and sewerage, electrical power, and urban transportation including vehicle registration. Focusing on the improvement of the living environment of the people living in urban areas, the Rolling Plan aims at emphasizing the planning ability through the development of relevant laws and human resource development in the authorities concerned. In the area of vehicle administration, urban traffic conditions shall be improved through the capacity development of human resources related to vehicle registration and inspection. Also, there is the "Urban Function Enhancement Program (transportation and electrical power)" in the priority area which assists the development of urban living environment, and the MVRI Project is also positioned within the framework of this Program. Therefore, the Project is in line with the direction of the government policy in Japan.

[Needs of the Project]

Before the commencement of the Project, although the number of vehicles was rapidly increased in Cambodia, the administration system of vehicle registration and inspection was insufficient, and most of vehicles were used ones which caused safety and environmental problems. The problems of vehicle registration included that the registration was not progressing smoothly and that discarded vehicles were not deleted from the database of vehicle registration. With regard to the latter, since the data of new vehicles was added to the registration database without deleting the vehicles discarded, it was difficult to grasp the actual number of vehicles. In terms of vehicle inspection, on the other hand, a shortage of vehicle inspection centers and low quality of vehicle inspection were pointed out. Before the beginning of the Project, there were only six (6) vehicle inspection centers across the country whose number was not enough in consideration of vehicle inspection nationwide. For the quality improvement of vehicle

inspection, moreover, the requirements of vehicle inspection centers and the inspection items were not adequately established. Thus, the system improvement of vehicle registration and inspection was an urgent issue for land transportation administration facing rapid automobile society, so that technical cooperation was requested to solve these issues. Therefore, the needs of the Project were extremely high for the improvement and continuation of vehicle registration and inspection, and the concept of this technical cooperation is in line with the needs of Cambodian government.

1.2 Effectiveness

The effectiveness of the Project is ***high*** because the Project Purpose was achieved in line with the indicators and through the accomplishments of four (4) Outputs before the termination of the Project.

The main purpose of the Project is to improve the administration of vehicle control together with the Guidelines which contribute to the continuous operations of vehicle registration and inspection. It was a great impact to incorporate the IT system into the operations of vehicle registration and inspection. Ultimately, statistical data of vehicle registration were unified into a single system and accurate services of vehicle inspection were provided for vehicle owners, which is necessary for the administration of vehicle control by MPWT.

In terms of indicators, as the first indicator explains that the numbers of vehicle registration procedure and vehicle inspection have attained to the target values respectively, the indicator 1 was achieved in 2018. Also, since the satisfaction rating of the applicants for vehicle registration shows the target value exceeded, the indicator 2 was accomplished in 2019. Lastly, the indicator 3 was nearly achieved in 2019 because the performance assessment of vehicle inspection at the centers has closely attained to the target value. In any way, as the indicator 1 is the data in 2018, GDLT shall continuously watch and monitor the data in 2019 and thereafter.

Table 77 Achievements of the Project Purpose based on the indicators

Components of the PDM			Target Value		Achievements of Each Financial Year		
Narrative Summary	Indicators	Means of Verification	Baseline	Target Value	FY 2017	FY 2018	FY 2019 (by May)
Project Purpose: The administration of vehicle control by MPWT is improved.	(1) The numbers of vehicle registration procedure (vehicles registered, disused, and transferred) and vehicle inspection implemented exceed 70,000/14/14,000 and 250,000 per annum respectively.	(1) IT system improved by the Project, etc.	• Vehicles registered 60,794 (in 2016) • Vehicles disused N/A (in 2016) • Vehicles transferred 5,800 (in 2016) • Vehicle inspection 193,706 (in 2016)	• Vehicles registered 70,000 (in 2019) • Vehicles disused 14 (in 2019) • Vehicles transferred 14,000 (in 2019) • Vehicle inspection 250,000 (in 2019)	• Vehicles registered 60,400 • Vehicles disused 8 • Vehicles transferred 13,033 • Vehicle inspection 177,806	• Vehicles registered 77,195 • Vehicles disused 16 • Vehicles transferred 17,085 • Vehicle inspection 241,911	• Vehicles registered 45,176 • Vehicles disused 15 • Vehicles transferred 7,210 • Vehicle inspection 108,388
	(2) The satisfaction rating of the applicants exercising vehicle registration procedure exceeds 60% on average.	(2) Questionnaire survey to the applicants at registration office	42.6% (June 2017)	60.0%	42.6% (in June)	59.0% (in May)	61.8% (in June)
	(3) The performance assessment of vehicle inspection at the centers by the staff of MPWT and inspection centers exceeds 70% on average.	(3) Questionnaire survey to the staff of MPWT and inspection centers	53.7% (June 2017)	70.0%	53.7% (in June)	67.7% (in May)	68.8% (in June)

Source: Monitoring System (M/S) for the MVRI Project from FY 2017 to FY 2019

Furthermore, the Outputs contributed to the achievement of the Project Purpose through (1) the administration system for vehicle registration, (2) administration system for vehicle inspection, (3) IT system for vehicle registration and inspection, and (4) awareness-raising operations on vehicle inspection for users. In this way, the project design was logically established between the Project Purpose and Outputs, which well contributed to the achievement of the Project Purpose.

Also, the Important Assumption for the achievement of the Project Purpose (MPWT staff capacitated by the Project continuously working for their respective positions) was fulfilled as explained below.

1.3 Efficiency

The efficiency of the Project is ***moderate*** because the Guideline for vehicle registration (Output 1) and the Roadmap for IT system (Output 3) were not finally approved by MPWT before the termination of the Project whereas the Inputs were favorably transferred into the Outputs in general. However, MPWT currently undertakes the approval procedure of the Guideline and Roadmap.

In terms of the Outputs, moreover, they were nearly achieved along the initial project design because of the appropriate logical relationship between the Outputs and Inputs, which contributed to the achievements of the Outputs.

[Achievements of the Outputs]

Output 1: The administration system for vehicle registration is strengthened.

Although the Output 1 was nearly achieved along the initial project design, the Guideline for vehicle registration was not approved by MPWT before the termination of the Project. However, it is anticipated that the Guideline will be approved by December 2019 after the endorsement of the prakas on the procedures of general vehicle registration because this links to the contents of the Guideline.

In the registration, the registration procedure was simplified and its operation was rationalized through the proper arrangement of application process and the preparation of documents necessary for vehicle registration. The outcomes were produced because MPWT developed online application system and the workflow of application procedure was streamlined and visualized in the Guideline for the purpose of practical implementation. On the other hand, since the deletion registration of private vehicles is still not carried out sufficiently, proper measures shall be taken for promoting the vehicle deletion.

Output 2: The administration system for vehicle inspection is established.

The Output 2 was achieved, and the Guideline of GDLT for vehicle inspection has already been approved by MPWT.

The Guideline of vehicle inspection was approved by MPWT at the early stage of the Project, and inspection centers were successively established from six (6) centers before the commencement of the Project to 14 as of June 2019 by the efforts of MPWT. Although the Project did not directly support the construction of inspection centers, MPWT encouraged private companies to increase the number of inspection centers because they understood the

principle of the Project.

As the Project developed the Guideline, inspection staff came to be able to conduct the vehicle inspection and maintenance of equipment based on the inspection standard indicated in the Guideline. Also, since all the inspection staff received the guideline-based seminar with the certificate from MPWT, they could understand the contents fairly well. As a result, they came to provide quality inspection services for vehicle owners.

In the future, however, the quality of vehicle maintenance and car repair shall be improved and promoted through the provision of certification criteria of automobile mechanics, and this institution shall be established in Cambodia.

Output 3: The IT system for vehicle registration and inspection is improved.

Although the Output 3 was nearly achieved, the Roadmap for IT system was not approved by MPWT before the termination of the Project. However, as IT industry is changing rapidly, the Roadmap is modified accordingly. Thus, if the Annual Report of MPWT in 2019 (published around August 2020) includes the Roadmap for IT system, the Project regards this fact as the approval of the Roadmap by MPWT.

Since the Project provided MPWT with parts of equipment of the IT system for vehicle registration and inspection, it came to be operated stably by expanding its processing capacity. The Project repeatedly explained the importance of information protection of the Government, such as unauthorized access and hacking attack over the Internet. As a result, security diagnosis of IT system was carried out, and the improvements were pointed out. Other than these points, as written proposals were only project products, it might be difficult for MPWT to sustain the operations at this moment. That is a future challenge for the Output 3.

Output 4: Awareness-raising operations on vehicle inspection, maintenance, etc. for users promoted by MPWT staff are improved.

The Output 4 was nearly achieved along the indicators as mentioned in the Achievements of the Project above.

PR events were convened to promote project activities, and there were various opportunities to collaborate with various types of stakeholders. Also, a number of novelty goods for the project PR were produced and distributed, such as leaflets for the project introduction, vehicle registration procedure, vehicle inspection procedure, and motion videos for online application procedure and vehicle registration procedure. Moreover, the PR events were involved with automobile companies, a famous Cambodian vocalist, universities, etc., in order to promote and inform the project activities across the country. In the future, therefore, the counterpart shall plan and convene PR events on their own initiative.

[New Prakas established during the implementation of the Project]

During the cooperation period of the Project, MPWT has established several Prakas which supported project activities and contributed to the achievements of the project objectives. The following table indicates the Prakas established during the project period. However, as there are several acts which have not been approved yet, it is expected to be undertaken right after the termination of the Project.

Table 78 Prakas established during the cooperation period

No.	Category	Prakas/Announcement	Title
1	General: Jointly established with Ministry of Economy and Finance (MEF)	Prakas No. 863 July 2016	Sales of registered vehicle number plate of family vehicles and small sized vehicles
2		Prakas No. 864 July 2016	Revenue management of sales of registered vehicle number plate
3	Vehicle registration	Prakas No. 46 January 2017	Form and procedure of vehicle registration, issuing of vehicle number plate, and vehicle deregistration
4		Announcement No. 12 April 2017	The permission of authorization to vehicle dealer shop for vehicle registration procedure
5		Pending: Already submitted in 2018	The procedure of ownership transfer
6	Vehicle inspection	Prakas No. 45 January 2017	Vehicle technical inspection
7		Prakas No. 64 February 2019	The procedure of issuing business license for vehicle inspection
8		Prakas No. 170 June 2019	Vehicle technical inspection (reivsion of Prakas No. 45)
9		Pending: Already submitted in Mar 2019	Standards of the vehicle technical inspection

[Capacity Development Programs through the Training, Seminars, etc.]

There are several guideline-based seminars on vehicle registration and inspection for the project counterparts as shown below. With reference to vehicle inspection, specifically, seminar participants also received hands-on training at inspection centers and obtained its certificate from MPWT at the end as explained above.

Table 79: Vehicle registration (VR)

No.	Course Title	Period	Venue	Targeted persons	No. of participants
1	1st Guideline Seminar for Vehicle Registration	13th Sep, 2018	Siem Reap	DPWT staff in charge of VR	50
2	2nd Guideline Seminar for Vehicle Registration	4th Jan, 2019	Kep	DPWT staff in charge of VR	60
3	3rd Guideline Seminar for Vehicle Registration	21st Feb, 2019	Mondulkiri	DPWT staff in charge of VR	60
4	4th Guideline Seminar for Vehicle Registration	From 8th to 9th Sep, 2018	Phnom Penh	DPWT staff in charge of VR	100

Table 80: Vehicle inspection (VI)

No.	Course Title	Period	Venue	Targeted persons	No. of participants
1	1st Seminar for Vehicle Inspection	25th May, 2017	Phnom Penh (PP)	GDLT staff in charge of VI	6

2	2nd Seminar for Vehicle Inspection	From 13th to 15th Jun, 2018	PP	CMVIC inspection staff in PP	80
3	3rd Seminar for Vehicle Inspection	From 1st to 3rd Nov, 2018	PP	CMVIC and HK inspection staff in PP	40
4	4th Seminar for Vehicle Inspection	From 8th to 9th Dec, 2018	PP	CMVIC and HK inspection staff across the country	100

Other than these seminars, the Project conducted the capacity development programs, including the training in Japan (3times, 5-10days), forums for vehicle inspection in Indonesia, Philippines, and Thailand for 3 days each, and general seminars for vehicle registration and inspection in Phnom Penh (2 times).

In this way, the capacity development programs efficiently contributed to the achievements of the Outputs.

[Relationship between Inputs and Outputs]

The following Inputs were efficiently transferred into the Outputs in general. The details are explained as described below.

Assignment of experts

Two (2) long-term and short-term experts were assigned to the Project with 72 MM (36MM x 2 persons) in Cambodia and 74.53 MM (42.75MM in Cambodia and 31.78MM in Japan) respectively as described in "II. 1 Results of the Project (1.1 Input by the Japanese side)." Generally speaking, these inputs have favorably been transferred into the project activities for the achievements of the Outputs.

Provision of equipment

The equipment of seven (7) items provided to the Project is shown in Table XX. Those equipment was properly used for producing Output 1 and 3.

Table 81: List of equipment provided

No	Name of Equipment	Purpose of use
1	Equipment of IT system	Equipment for data center
2	Data server	Server for data center to complement the processing capacity of existing server
3	Storage, Rack, Uniklair Access Floor	Those items to be used for the installation of the new server
4	Software, Security Equipment	Software and security equipment for the new server
5	Network Equipment	Network equipment for the new server
6	UPS	Permanent power supply to enhance the availability of the new server
7	Wireless Access Point, Lan Cable, etc.	Those items to be used for the maintenance of network environment

Training in Japan

In total, 24 counterparts of MPWT and project stakeholders, such as GDTax, GDCE, National Police, etc., participated in the training courses in Japan. The knowledge and experiences learned during the training were applied to their practical works after coming back to Cambodia. The details are indicated in Table XX.

Table 82: Training in Japan

Course Title	Location	Period	Participants
(1) 1st Training in Japan	Tokyo, Japan	12 – 18 February 2017	10
(2) 2nd Training in Japan	Tokyo, Japan	13 – 17 February 2018 (vehicle registration and IT system) 13 – 22 February 2018 (vehicle inspection)	7
(3) 3rd Training in Japan	Tokyo, Japan	14 – 19 January 2019	7

1.4 Impact

Although it is too early to assess the accomplishment of the Overall Goal at this moment, there are prospects that the Overall Goal will be achieved three years after the termination of the Project (refer to IV. 1 “Prospects to achieve Overall Goal” for more detail). Additionally, the following impacts are recognizable from the implementation process of the Project.

[Achievement of the Overall Goal]

In this Project, the development of administration system for vehicle registration and inspection (Output 1 and Output 2), the improvement of IT system (Output 3), and users’ awareness of vehicle inspection (Output 4) have almost been achieved, and seminars based on both Guidelines have also been conducted. Thus, there are prospects that the Overall Goal, “To smoothly promote vehicle registration and inspection in Cambodia,” will be achieved three (3) years after the termination of the Project provided that these experiences are continuously utilized for the achievement of the Overall Goal even after the termination of the Project.

[Important Assumption]

The Important Assumption for the achievement of the Overall Goal is “the budget for vehicle registration and inspection is continuously allocated by the government of Cambodia.” This achievement depends on the self-reliant efforts of Cambodian side, and the Overall Goal will not be achieved if the Assumption is not fulfilled. Therefore, it is important for Cambodian Government to continuously secure the budget necessary for vehicle registration and inspection in order to achieve the Overall Goal. Because vehicle registration and inspection are not sustained unless the Assumption is fulfilled, GDLT shall regularly monitor this Assumption.

[PR activities]

Although the users' awareness of the vehicle inspection necessary for securing the safety was not high previously, the users came to presently inspect their vehicles because of the legal enforcement and police control on roads. On the other hand, the Project carried out PR activities for low-awareness vehicle users through seminars and campaigns on vehicle inspection and maintenance. The Overall Goal will be achieved through the smooth implementation of vehicle inspection by obtaining the understanding and cooperation of car dealers and vehicle users through PR activities.

Moreover, PR activities were successfully conducted with the appropriate leaflets on vehicle registration and inspection. Also, the Project invited a very famous Cambodian vocalist, Ms. Aok Sokunknha, for the promotional event at AEON Mall. It was a great impact for the general public to recognize vehicle registration and inspection in Cambodia.

[Vehicle inspection centers and vehicle mechanics]

Vehicle inspection centers approved by MPWT are the private companies which meet the certification criteria of MPWT. Because of the restrictions, the accredited centers shall be operated according to the Guideline developed by the Project so as to secure the quality of inspection centers. With the same idea, the accuracy of vehicle inspection will further be improved if the number of officially qualified vehicle mechanics is increased. Therefore, there are prospects that vehicle inspection with a certain level of quality will be carried out across the country by increasing the number of inspection centers approved by MPWT and officially qualified vehicle mechanics.

1.5 Sustainability

The sustainability of the Project is ***moderate*** because the Guideline for vehicle registration and the Roadmap for IT system were not finally approved by MPWT before the termination of the Project. However, there are prospects that GDLT will undertake the approval procedure of the Guideline and Roadmap and continuously promote vehicle registration and inspection with reference to the Guidelines from now on, too. Moreover, there is a prospect that the financial sustainability for vehicle registration and inspection will be secured even after the termination of the Project.

From the policy, operational, and technical aspects, the sustainability will be described as indicated below.

[Policy aspects]

As mentioned in the Relevance, NSDP describes the transport sector and highlights the administration of vehicle control. Thus, if the direction is retained for the future, the administration of vehicle control by MPWT will be sustained because of the effectiveness of NSDP.

[Operational aspects]

In the Output 1 and Output 2, the Project developed the Guidelines of vehicle registration and inspection system,

and guideline-based seminars were convened. After the seminars, vehicle registration and inspection came to be implemented according to the procedures in the Guidelines. In this way, the improved vehicle registration and inspection will be sustained even after the termination of the Project provided that the benefits and importance are further recognized through the expansion of a series of project activities in line with the Guidelines from now on, too.

In order to keep the Guidelines to be used continuously, moreover, the most reasonable approach is to regularly update the Guidelines with new data and information. Thus, it is necessary to establish a guideline taskforce. If the taskforce is set up, the Guidelines will continuously be updated with their ownership towards the guideline improvement.

[Financial aspect]

The total amount of collection fees in vehicle registration will be estimated with USD 2.1 million in 2016 and 2.9 million in 2018 with the increase of 39%. Focusing on the vehicle transfer, specially, the estimated revenue nearly tripled from 2016 to 2018. Moreover, the total revenue of vehicle inspection implemented was increased from 2.9 million in 2016 to 3.9 million in 2018 with the increase of 36%. Thus, there is a prospect that the financial sustainability for vehicle registration and inspection will be secured even after the termination of the Project.

Table 83 Estimated revenues of vehicle registration (VR) from FY 2016 to FY 2018

		FY 2016	FY 2017	FY 2018
Vehicle registration (VR)	Number of VR	60,794	60,400	77,195
	Revenue (USD)	1,959,092	1,946,390	2,485,633
Vehicle transfer (VT)	Number of VT	5,800	13,033	17,085
	Revenue (USD)	148,885	334,561	438,325
Total Revenue (USD)		2,107,977	2,280,951	2,923,958

Source: Estimated by the Project through the number of vehicle registration and the unit price

Table 84 Estimated revenues of vehicle registration (VR) from FY 2016 to FY 2018

		FY 2016	FY 2017	FY 2018
Existing vehicles	Number of VI	174,188	177,806	241,911
	Revenue (USD)	2,158,191	2,203,017	2,997,279
New vehicles	Number of VI	60,794	60,400	77,195

	Revenue (USD)	724,099	719,410	919,449
Total Revenue (USD)		2,882,290	2,922,427	3,916,728

Source: Estimated by the Project through the number of vehicle inspection implemented and the unit price

[Technical aspect]

It is difficult to apply the vehicle inspection system in Japan to the one in Cambodia. In order to sustain the system in Cambodia after the termination of the Project, the one in Japan and developed countries shall not be adopted in Cambodia without any modifications, but the system be consistent with the current conditions in Cambodia, also in consideration of the relationship with neighboring countries. In this way, the Project established the vehicle inspection system in accordance with the needs of the country for the sustainability of the system. Therefore, there are prospects that vehicle inspection in line with the Cambodian specification will continuously be carried out even after the termination of the cooperation period because the Project developed the Guideline with the inspection checking items proposed by the Project and approved by MPWT under mutual understanding according to the present conditions in Cambodia.

2 Key Factors Affecting Implementation and Outcomes

In terms of the Important Assumptions, the Project shall pay attention to those conditions for the achievement of the Outputs and Project Purpose during the cooperation period. It seems that there are no risks to be found for those conditions at the end of the Project.

2.1 Important Assumption for the achievement of the Project Purpose:

MPWT staff capacitated by the Project continues working for their respective positions.

The Project Manager has changed from H.E. Chan Dara (February 2017) and H.E. Peou Maly (February 2018) to H.E. Chhoun Voun, and Mr. Meng Chhun Heng (Vehicle Inspection) was transferred to the other division in April 2017.

With regard to vehicle registration, although the former chief of vehicle registration office (Mr. Ly Kong) was transferred, the previous deputy chief (Mr. Chheng Samnang) who had intensively supported vehicle registration with JICA experts was promoted to the deputy director. Thus, he has hitherto undertaken the significant role properly because he extensively recognizes the past project activities.

Moreover, previous chief of vehicle inspection office (Mr. Taing Peou) was promoted to the deputy director of land transport (responsible for vehicle inspection and driving license). However, as he is still in charge of vehicle inspection and shares the project concept with his successor (Mr. Un Vath), project activities have been carried out as in the past. As a conclusion, it is considered that this condition does not severely affect to the achievement of the Project Purpose.

2.2 Important Assumptions for the achievement of the Overall Goal:

The budget for vehicle registration and inspection is continuously allocated by the government of Cambodia.

It is too early to mention this condition at this moment because it shall be fulfilled after the termination of the Project and before the accomplishment of the Overall Goal.

3 Evaluation on the Results of the Project Risk Management

At the beginning of the project, although the election in Cambodia was assumed to be a factor that makes it difficult to promote the project, it was promoted without major obstacles due to the cooperation of the MPWT side.

Although there were changes in the organizational structure of MPWT and personnel changes, all C / Ps were smoothly handed over, and we (MPWT and consultant team) were able to focus on promoting this project.In order to introduce the guidelines formulated in the project, it takes time to formally introduce it, for example, because it is necessary to change the Prakas, and some items have not been introduced.

However, MPWT is proceeding with the procedure towards institutionalization even for unintroduced proposals, and this is not a problem.In addition, although there was a delay due to factors other than MPWT and the consultant team (business stoppage at the private car inspection), it was possible to recover the delay within the project period.From the above, although some risks have occurred, it can be evaluated that the MPWT side actively involved in the project could be promoted without developing into problem.

As described above, although some risks have occurred, it can be evaluated that the MPWT side's active involvement in the project could be promoted without developing into problems.

4 Lessons Learned

Overall, this project is evaluated to have been able to receive the active involvement of the counterparts and to carry out improvement activities that are realistic and appropriate for Cambodia.

However, in order to make further improvements from the viewpoint of project implementation, recommendations and lessons learned are described below.

4.1 Flexible correspondence and continuous mutual understanding

Before this project started, MPWT implemented 100 day reform and established online vehicle registration system during the term. Cambodian vehicle registration administration made a great progress by the system, and JICA expert team has been able to consider improvements where an online system exists.

The key to success was MPWT’s strong effort and speed, also JICA expert team’s flexible correspondence based on the actual situation.

But as there were almost half a year between preliminary study to this project and JICA experts didn’t realize the fact that the online system before this project started, it would be better for Japanese side to follow up the situation in Cambodia after the record of discussions signed on Feb 29, 2016. If we could know the situation earlier, it might be earlier to decide what should be improved for vehicle registration and IT system.

This time, as a result, we could made more progress than we planned in 2016, but especially in rapidly changing countries, continuous mutual understanding is important even before the start of the project.

4.2 Commitment of the MPWT and stakeholders

Throughout the project, MPWT made a strong effort to achieve this project. The basic factor of the efforts was the consistency between MPWT policy and this project. MPWT aimed to improve traffic safety (vehicle safety) and the convenience of vehicle registration and inspection procedures, and that was in line with the goal of this project.

However, in order to improve vehicle administration, it needs the cooperation among several departments and ministries and it is difficult to realize it in a vertical organization.

In that respect, it was necessary for stakeholders who haven't interacted each other to communicate in this MVRI project, and in particular, at the beginning of the communication, it is evaluated that the intervention of a third party(JICA expert team) made easier to interact.(It worked like a catalyst.)

But once they started to have conversations, the interaction was activated even without such a catalyst.

Also, MPWT actively held seminars at DPWT and training for private car inspection operators, and provided direct opportunities to explain and ask questions about car registration and vehicle inspection. It makes MPWT and DPWT have dialogues more often and mutual understanding and cooperative relationship was established.

As mentioned above, the activation of the dialogue regarding vehicle registration and vehicle inspection management within MPWT and among MPWT and the related parties, and the establishment of cooperative relationship have become the driving force behind this project.

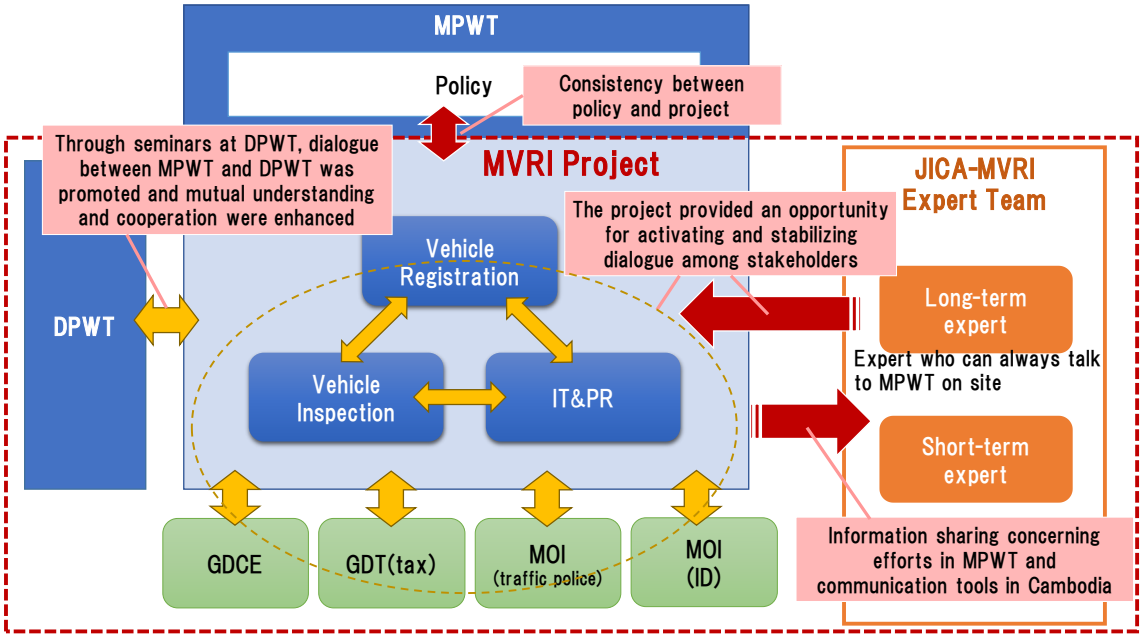


Figure 61 key factors of MPWT commitment

Regarding communication, although not directly related to the project purpose itself, being able to recognize

and utilize common communication tools in Cambodia contributed greatly to the improvement of communication between JICA experts and MPWT.

[IT system]

In order to achieve the effect of this project, whole image of the vehicle registration and inspection system were necessary to be understood by counterparts, and we hold training in Japan in such purpose. On the other hand, it was difficult to hold advanced training for professionals in each of three core areas of this project.

As we explained, to cover such an advanced training, long term experts made some opportunities to visit the third countries or additional opportunities to learn vehicle inspection in collaboration with other organizations. But as for IT systems, we couldn't hold such an advanced training.

If there are some opportunities to hold vehicle administration related training in future, as IT system is the key to manage vehicles, an advanced training for IT system should be considered.

4.3 Adequate role sharing

JICA experts could introduce Japanese system and make recommendation based on the interviews and research. But for the project success it is inevitable that MPWT itself consider the adequate measures taking the Cambodian social and economic environment into consideration.

In this regard, based on the proposal or information from JICA experts, MPWT has considered the practical measures in Cambodian situation by themselves. And in the first and second JCC, JICA experts made presentation mainly. But after that, MPWT counterparts have presented their activities as their work with some assistance from JICA experts. This means the measures which were proposed and implemented through this project would be operated continuously.

The reason why this adequate role sharing was achieved is as follows.

- The project purpose is consistent with MPWT policy.
- MPWT officers have professionalism and have been engaged in work.
- They were enthusiastically to know the policies of other countries in order to improve the management of their vehicle registration and inspection administration.
- As we requested counterparts to make a presentation by themselves after the 2nd JCC, MPWT had to explain about the measures getting some support from JICA experts.

4.4 To establish indicators which can be collected from the data source

It is crucial to make an adjustment to terminate the Project several months after the financial year of the country because statistical data is usually extracted after the financial year. As it is crucial for the Project to monitor and confirm the achievements of project objectives, the timing of the project completion shall be considered. Importantly, since the ideal data source of indicators is the governmental statistics, it is necessary for the project implementers to establish the indicators which can be collected from the data source, especially the indicators of

the Overall Goal which will be achieved after the termination of the Project. If the indicators are collected from different sources which are costly and take a longer time, then the sustainability of data collection will be dropped in comparison with the governmental statistics. Therefore, this should be considered for other projects when the projects are designed or project indicators are modified during the cooperation period.

IV For the Achievement of Overall Goals after the Project Completion

1 Prospects to achieve Overall Goal

1.1 Indicators of the Overall Goal

(1) Indicator 1: Effective use of the information and data of vehicle registration according to the checklist on the information use of vehicle registration

It shall be confirmed whether or not MPWT and Ministries concerned effectively utilize the information and data of vehicle registration from the perspectives of the access to information and data, the feedback to policymaking, *etc*. The checking items on the information use of vehicle registration for policymaking department of MPWT and Ministries concerned are shown below.

Table 85 Effective use of the information and data of vehicle registration by MPWT

		Department of Road Safety	Department of IT &PR
Q1	Frequency of receiving vehicle registration information/data	・ Any time	・ Monthly
Q2	Types of the information/data item	・ Plate number ・ Vehicle type ・ Specification info ・ Owner info ・ User info ・ Registration date ・ Inspection status	・ Vehicle type ・ Registration date
Q3	Purpose for using the information/data	・ Monitor and solve the problems of customer services	・ Statistics making
Q4	How to receive the information/data	・ Online IT system	・ Paper documents ・ Telegram
Q5	How to avoid the leak of the information/data	・ Password protection on e-document	・ Management of staff ID to access ・ Password protection on e-document

Table 86 Effective use of the information and data of vehicle registration by the Ministry concerned

		GDCE	Traffic Police Department (MoI)
Q1	Frequency of receiving vehicle registration information/data	・ Any time	・ Any time
Q2	Types of the information/data item	・ Plate number	・ Plate number

		・ Vehicle type ・ Owner info	・ Vehicle type ・ Owner info
Q3	Purpose for using the information/data	・ Traffic violation crackdown ・ Traffic accident research	・ Traffic violation crackdown ・ Traffic accident research
Q4	How to receive the information/data	・ Vehicle Information App	・ Vehicle Information App
Q5	How to avoid the leak of the information/data	・ Password protection on e-document	・ Password protection on e-document

(2) Indicator 2: Number of vehicle inspection centers fulfilling the certification criteria of MPWT

The target value of this indicator is more than 12, and the number of vehicle inspection centers fulfilling the certification criteria (or requirements) based on the Vehicle Inspection Guideline (refer to "2-1 Requirements for Vehicle Inspection Centers") is 14 as of June in 2019. The requirements of MPWT for vehicle inspection centers are listed as follows:

- Facility of inspection centers;
- Inspection equipment;
- Maintenance and calibration of inspection equipment;
- Requirements for inspection staff;
- Inspection procedure;
- Recordkeeping results; and
- Report of inspection results.

Without meeting those requirements, vehicle inspection centers are not able to carry on business in today's circumstance. This is a great improvement compared to the past operations. Even after the termination of the Project, furthermore, the most crucial point is to retain the number of vehicle inspection centers with the requirements defined in the Guideline. Therefore, the target value shall be increased from 12 to 14, and this challenging situation shall be sustained for the achievement of the Overall Goal.

(3) Indicator 3: Percentage of the vehicle inspection implemented to the vehicles necessary for the inspection per annum

The target value of this indicator is 81% per annum, and this percentage of the vehicle inspection to the vehicles necessary for the inspection is 84.4% in 2018 from 73.0% in 2016 as shown in the following Table. In this way, there is a prospect that this percentage will be sustained at the current level even three (3) years after the termination of the Project.

Table 87 Percentage of the vehicle inspection implemented to the vehicles necessary for the inspection per annum

	2014	2015	2016	2017	2018	2019 (as of May)

No. of vehicle inspection implemented[14] **(A)**	97,907	140,617	174,188	177,806	241,911	108,388
No. of vehicles necessary for the inspection[15] **(B)**	194,394	212,279	238,691	261,523	286,668	322,108
Percentage (A/B)	50.4%	66.2%	73.0%[16]	68.0%	84.4%	33.6%

Source: IT System, etc.

1.2 Prospects of the Overall Goal after the Project Completion

After the completion of the Project, GDLT shall sustain its efforts to smoothly promote vehicle registration and inspection across the country, *i.e.*, Overall Goal which will be accomplished three years after the project termination. In order to achieve this, it is crucial for GDLT (a) to effectively utilize the information and data of vehicle registration by MPWT and ministries concerned; (b) to fulfill the certification criteria of MPWT by vehicle inspection centers; and (c) to retain the percentage of the vehicle inspection implemented to the vehicles necessary for the inspection as defined in the indicators of the Overall Goal.

2 Plan of Operations and Implementation Structure of the Cambodian side to achieve Overall Goal

The following operations shall be implemented after the completion of the MVRI Project. The operation schedule is shown in the Table below.

(1) MPWT approves the Guideline for Vehicle Registration and the Roadmap for the IT System.

(2) GDLT shares the progress and achievements with MPWT in order to obtain its supports for the smooth implementation of the Project.

(3) Vehicle registration is carried out along the checklist of vehicle registration procedure in the Guideline, and GDLT/DPWT monitors the progress of vehicle registration with the Form 3 on a quarterly basis.

(4) GDLT monitors the effective use of the information and data of vehicle registration according to the checklist on the information use of vehicle registration in the Guideline (Indicator 1: Overall Goal).

(5) Vehicle inspection is carried out along the checklist of vehicle inspection in the Guideline, and GDLT/DPWT monitors the progress of vehicle inspection with the Form 4 on a semiannual basis.

(6) GDLT monitors the number of vehicle inspection centers fulfilling the certification criteria of MPWT (Indicator 2: Overall Goal).

[14] The number of vehicle inspection excludes the number of newly-registered vehicles receiving the inspection during the registration.

[15] This figure is accumulated from the number of vehicles registered in the past 10 years, and the Project takes the weighted average of this figure with 70% because private vehicles receive the inspection every other year whereas commercial vehicles do every year.

[16] Although this percentage was originally calculated in **81%** (baseline value) with the data of 2016, it came to be **73%** after the correction of the number of vehicle inspection from **193,706** to **174,188** as explained above. However, the Project keeps the same target value to be achieved in 2022.

(7) GDLT monitors the percentage of the vehicle inspection implemented to the vehicles necessary for the inspection (Indicator 3: Overall Goal).
(8) MPWT reviews the Guidelines and the Roadmap annually.
(9) PR activities are carried out in collaboration with the Road Safety Department.
(10) MPWT monitors whether or not the budget for vehicle registration and inspection is continuously allocated in order to achieve the Overall Goal even after the termination of the Project.

Ultimately, the Overall Goal will be achieved three (3) years after the termination of the Project, and ex-post evaluation survey will be executed by JICA.

Table 88 The operation schedule to achieve the Overall Goal

Activities	Responsible organizations	2019					2020											2021												2022											
		8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
(1) To approve the Guideline for Vehicle Registration and the Roadmap for the IT System.	MPWT																																								
(2) To share the progress and achievements with MPWT in order to obtain its supports for the smooth implementation of the Project.	GDLT																																								
(3) To carry out vehicle registration along the checklist of vehicle registration procedure (Form 3).	GDLT/DPWT																																								
(4) To monitor the effective use of the information and data of vehicle registration according to the checklist.	GDLT																																								
(5) To carry out vehicle inspection along the checklist of vehicle inspection (Form 4).	GDLT/DPWT																																								
(6) To monitor the number of vehicle inspection centers fulfilling the certification criteria of MPWT.	GDLT																																								
(7) To monitor the percentage of the vehicle inspection implemented to the vehicles necessary for the inspection.	GDLT																																								
(8) To review the Guidelines and the Roadmap.	MPWT																																								
(9) To carry out PR activities in collaboration with the Road Safety Department.	MPWT																																								
(10) To monitor whether or not the budget for vehicle registration and inspection is allocated for the achievement of the Overall Goal.	MPWT																																								
Ex-post evaluation survey	MPWT/GDLT																																								

3 Recommendations for the Cambodian side

[General Aspects]

In order to keep the Guidelines to be used continuously, the most significant approach is to regularly update the Guidelines with new data and information. Thus, it is necessary to establish a guideline taskforce. If the taskforce is set up, the Guidelines will continuously be updated with their ownership towards the guideline improvement.

[Vehicle Registration]

As the deletion registration of private vehicles is still not carried out sufficiently, proper measures[17] shall be taken for promoting the vehicle deletion.

[Vehicle Inspection]

The accuracy of vehicle inspection will further be improved if the number of officially qualified vehicle mechanics is increased. Thus, certification criteria of automobile mechanics shall be established for the improvement of vehicle inspection and maintenance in Cambodia. By doing so, the quality of vehicle inspection and maintenance will be secured with a certain level across the country.

4 Monitoring Plan from the End of the Project to Ex-post Evaluation

By the time of the ex-post evaluation which will be executed three (3) years after the termination of the Project, the operation schedule to achieve the Overall Goal shown in the Table above shall be monitored semiannually by

[17] e.g. define the condition for delete registration by authority, cooperation with GDT(tax),PR activities etc.

JICA Cambodia Office.

Moreover, the ex-post evaluation shall be executed after December 2022 because the counterpart is not able to collect the yearly data of vehicle registration and inspection by the end of the financial year of Cambodia, *i.e.*, from January to December of the year.

Appendix1

JCC Minutes

1st JCC of the project for modernization of vehicle registration and inspection system in Cambodia

<Opening Remarks-1>
H.E. Chankosal explained the importance of the vehicle management in Cambodia due to the rapid growth of the transport sector. He also explained the measures such as amendment of traffic law, online application system and mobile inspection vehicles up to now, and this time, adding to these measures, they are going to improve vehicle registration and inspection system in cooperation with JICA.
And he expressed his appreciation for JICA and will try his best in order to maintain good relationship with JICA.

<Opening Remarks-2>
Mr. Tanaka, as a representative of JICA, described that economic growth in Cambodia also has been caused some challenges. Motorization is one of the significant factors of the economic growth, but it has also worsened traffic congestion and traffic accidents.
MPWT has taken some measures for these matters, but still there are some issues and necessity of modernization of vehicle management.
He explained the purpose of the first JCC; to confirm and agree on the outcome activities and organizational structures and to realize the progress of the project and exchange opinions.
In order to make this project successful, he stressed sustainability and strategic planning are the key. Especially, there needs a consensus on the vehicle registration and inspection system.
Effective vehicle management would bring benefits to both Cambodian government and citizens of Cambodia

<the Background of the Project>
Mr. Socheat showed his recognition of this project's purpose to deal with issues the registration and inspection of the rapidly increasing vehicles, especially motorbikes.
He explained that registered vehicle number is around 3.6 million and 85% of those are motorbikes.
He also explained the progress of the vehicle management in Cambodia up to now; As for vehicle inspection, one million vehicles are inspected. And they have 9 inspection vehicle inspection centers and have just implemented mobile inspection units. However, these

number doesn't mean the increase of the number of vehicle inspection and quality.
He also described that they have implemented online application system in GDT, and they are going to open it to public.
<The explanation of the Project>
Mr. Ota explained the project structure, project members, and also how they have been tackled with this project.

<the Explanation of the Subjects>
Ms. Terashima explained the three points which should be approved in the first JCC.
1) Project Work Plan
2) Project Design Matrix
3) One of IT Short term strategy
As for project work plan, she explained the concept, approach, tasks, meetings, trainings, PR activities.
The concept is "total design for vehicle management", and the expert adopt PDCA approach. There are several meetings to make a decision; pre-consideration(workshop), Task Force and JCC. And they will offer trainings in Japan and assist PR activities by MPWT.
In regard with IT short term strategy, the expert team was requested to modify their tasks, therefore, this time she explained that they would make suggestions to improve IT system in timely manner.
As the second subject was Project Design Matrix(PDM), she explained modified PDM(*attached document) and the reason of modification.
And the last subject was one of IT short term strategy. She suggested to have a security diagnosis of the current IT system; online application system.

<Progress Report-1 Vehicle Registration>
Mr. Nakagawa reported the progress of the vehicle registration.
He pointed out some issues; Inaccuracy of registration such as no registration number plates or no registration of the ownership transfer, insufficient collaboration with vehicle inspection or tax or traffic police etc., insufficient operation such as in adequate staff allocation, and cross-border issue. But he also mentioned that MPWT is now under establishment of online application system, therefore he needs to consider the effect of the IT system.

< Progress Report -2 Vehicle Inspection>

Mr. Takagi reported the progress of the vehicle inspection.
He pointed out some issues; Regulation or Rule, Management, Knowledge or understanding.
As for regulation or rules, he explained some observations. For example, contradictions in regulations, no proper criteria for equipment and inspector, and some regulations don't necessarily stipulate rules clearly.
As for management, he explained some observations that information to be managed is not well identified and unwritten, some rules are not abided by properly, no proper checking system for managing implementation.
And as for knowledge or understanding, some DPWT's officers seem to understand they don't have right and obligation to manage the centers, and some inspectors are lacking knowledge and understanding of the significance of inspection, and some car owners seems not to understand the significance well.

< Progress Report -3 IT SYSTEM>
Mr. Ono reported the progress of the IT system.
He explained pros and cons of the current IT system from the following five points of view.
1) Basic Business Function
2) Information Security
3) Utilization of Vehicle Registration Information
4) Check Processing
5) Non-Functional Requirements
He explained that the simple IT system has already implemented in Cambodia, but some functions lack or are insufficient, there are security risks, non-functional requirements haven't been considered.

As next step, each expert explained that based on these issues pointed out, they will continue the research and try to figure out those solutions with MPWT.

<QA-Session>
One of MPWT members asked if the purpose is to establish a new IT system or to improve the existing one.
Ms. Terashima(short term expert) answered that it is for improvement at the moment. But if experts find some serious problem or so on, they might suggest some new IT system.
Mr. XX asked about Japanese case to check vehicle modification.
Mr. Takagi(short term expert) answered that there is other inspection specific for the

modification apart from the periodical inspection in Japan.

H.E. Chan Dara expressed his appreciation to the experts. Especially he mentioned that they are happy with IT experts are along with them during development of their new IT system. Also Cambodia needs the detail of law and regulation, and expects Japanese contribution.

<Closing Remarks>
H.E. Chankosal described that as their previous IT system wasn't adequate, they had gotten a lot of complaints from people. Therefore, they developed a new IT system with a local vendor, but still there are many problems. Also he mentioned that they don't know how to maintain and protect the IT system. So, they need to improve the new system and to know how to manage it. He recognizes that the human skills for the IT system are not enough and trainings are needed.
And regarding vehicle inspection, he agreed with the Japanese expert that there needs some more legislation and also more specification for inspection.
And lastly, he agreed on all the subjects the experts explained, such as project approach, task, and the schedule.

Appendix: Attendees List

No.	Name	Position	Ministry/Institution
1	H.E. Touch Chankosal	Secretary of State	MPWT
2	H.E. Koy Sodany	Under Secretary of State	MPWT
3	H.E. Chan Dara	Director General of GDT	GDT, MPWT
4	Mr. Kong Sophal	DDG of Transport Department	MPWT
5	Mr. Chea Socheat	Director of LTD	GDT, MPWT
6	Mr. Suon Vanhong	Deputy Director of LTD	GDT, MPWT
7	Mr. Meng Chhunheng	Deputy Chief of Inspection Department, LTD	GDT, MPWT
8	Mr. Prak Vanna	Deputy Director of LTD	GDT, MPWT
9	Mr. Chheng Samnang	Deputy Chief of LTD	GDT, MPWT
10	Mr. Sok Sovithyea	Deputy Director	GDCE, MoEF
11	Mr. Taing Peou	Chief of Inspection Department	GDT, MPWT
12	Mr. Ly Kong	Chief of Registration Office	GDT, MPWT
13	Mr. Ken Rotha	Deputy Director	Cabinet, MPWT
14	Mr. Sotheayuth Heang	Head of IT of Cabinet Office	MPWT
15	Mr. Sarannnara Keo	PR Official of Cabineet	MPWT
16	Mr. Holl Thyrith	Deputy Director of GDTax	MoEF
17	Mr. Nuon Chanrith	DDG of Customs Department	GDTax, MoEF

18	Mr. Hou Hemrin	ICT	GDTax, MoEF
19	Mr. Ban Dy Vitou	IT	GDTax, MoEF
20	Mr. Pen Pichdaro	Tax Official	GDTax, MoEF
21	Mr. Chuob Chandara	Tax Official	GDTax, MoEF
22	Mr. Nuon Chanrith	Deputy Director General	GDCE, MoEF
23	Mr. Chuon Chansopha	IT	GDCE, MoEF
24	Mr. Khieng Sokunthea	Director of General Department of Identification	GDI, MoI
25	Mr. Chhun Vanna	Deputy Director	GDI, MoI
26	Mr. Koeun Mesa	IT Officer	GDI, MoI
27	Mr. Cheng Vuthy	Deputy Chief of Traffic and Public Order Department	MoI
28	Mr. Sim Visal	Police Officer	MoI
29	Mr. Ing Vannak	Police Officer	MoI
30	Mr. Nak Pisey	Police Officer	MoI
31	Mr. Kotaro Tanaka	Senior Representative	JICA Cambodia
32	Mr. Hideaki Iwase	Project Formulation Advisor	JICA Cambodia
33	Mr. Masaya Ota	Long Term Expert	Expert, JICA
34	Ms. Nori Nakamura	Long Term Expert	Expert, JICA
35	Ms. Tomomi Terashima	Consultant	Expert, JICA

36	Mr. Takaoka	Consultant	Expert, JICA
37	Mr. Yu Nakagawa	Consultant	Expert, JICA
38	Mr. Akira Takagi	Consultant	Expert, JICA
39	Mr. Takumi Ono	Consultant	Expert, JICA
40	Mr. Makoto Sato	Consultant	Expert, JICA
41	Mr. Susumi Unesawa	Consultant	Expert, JICA
42	Mr. Hedetoshi Kume	JICA Expert	Expert, JICA
43	Mr. Koichi Ogawa	JICA Expert	Expert, JICA
44	Mrs. Seng Solady	Program Officer	JICA Cambodia
45	Ms. Oeng Sodavy	Project Assistant	GDT/MPWT
46	Ms. Chhoeurk Bomey	Assistant to JICA Expert	MPWT
47	Mr. Hiroyuki Takata	JICA Volunteer	JICA Cambodia
48	Ms. Seak Eng	Officer	CRDB/CDC

2nd JCC

The Project for Modernization of vehicle Registration and Inspection System in Cambodia

<Opening Remarks>

- Mr. Kong Sophal all participants and JICA Experts.
- He apologized that H.E Toch Chankosal and H.E Poeu Maly and some of MPWT members cannot attend this meeting because of the urgent meeting.
- And he explained as opening remarks that this project is the first one for transport sector in Cambodia. And last December, the 1st JCC was held and a taskforce was held in March 2017. In this JCC, the progress during six months since the 1st JCC, and also what will be done in coming six months will be explained in this JCC.

<Opening Remarks-2>

- Mr. Tanaka Kotaro showed the pleasure of making opening remarks. And explained about the project. He noticed several achievement of vehicle registration and inspection by MPWT, and this MVRI project would be able to support those activities. This project is not only IT system but also creation of useful, practical rules or guidelines for vehicle management. Those systems would be important to make it sure that the vehicle registration and inspection are done certainly.

- Mr. Kong Sophal noticed that Mr. Duy Chan Dara, who was supposed to make the next agenda for "MPWT Automation System" hasn't arrived at the meeting, so the agenda was skipped until he showed up.

<Explanation of the Subjects>

- Mr. Ota Masaya explained about the agenda of this JCC, and what are going to be explained and needed to be approved.

<Explanation of each Subject-1.IT system>

- Mr. Ono Takumi explained about the IT system. Before he explains long term and short term IT plan, he explains overview of the research.
- IT system part is considered on the basis of "sustainable development". And in order to achieve it, three resources—Application, IT infrastructure and Human resources would be the key factors.
- From the viewpoint of these factors, he mentioned about the long term plan.

- Firstly, realization of stable and efficient application, which is about the information sharing issues.
- Secondly, realization of stable and efficient IT infrastructure. Currently, MPWT has a plan to have a data center in a new building. Therefore, IT expert team is now investigating it in detail.
- Thirdly, development of human resources.
- This time, the long term plan is shown as just a direction, but after this JCC, the details are going to be discussed.
- Next, he explained about short term strategies, which will be implemented during this project.
- As application plans, he suggested two plans—(1)set the interface specifications of external administrative organizations, (2)conduct the security diagnosis.
- He explained each activities. JICA team is interviewing with MPWT and other ministries for (1) plan. And as there are hacking attack to vehicle registration and inspection system, JICA team is preparing for security diagnosis at the present.
- As development of human resources, he explained "suggestion of operational rules".
- And as IT infrastructure, "suggestion of infrastructure requirements" would be done. He explained the importance of IT infrastructure as "social infrastructure".
- In regard with short term strategy, he will explain the progress and achievement of those in the next JCC held in Dec 2017.

<Explanation of each Subject-2.Vehicle Registration>

- Mr. Nakagawa Yu made a presentation for Vehicle Registration.
- At first, he explained the activity schedule for vehicle registration part, and was going to mention the current issues and proposal of improvement direction for vehicle registration system.
- After the 1st JCC and taskforce, JICA team revised the current issues to be solved, and this time, four issues are defined:
  - Issue-1) inaccurate data registered in the past
  - Issue-2) no property protection for registered owner
  - Issue-3) no reliable registration (new registration, transfer, delete registration)
  - Issue-4) insufficient information sharing with related ministries
- And he suggested some ideas of countermeasures against these issues.
- In order to tackle issue-1, he suggested to set conditions in order to correct wrongly registered data (campaign etc.), and for delete registration.

- In regard with issue-2, to set mortgage registration system and to set authentication system of ownership right are suggested.
- Next is regarding issue-3, in order to make the vehicle registration by car dealers accurate, he suggested to make some guidelines or checklist, and the necessity of management system. Also, he advised to include ownership transfer and delete registration into vehicle registration system.
- Last ideas are for issue-4. He mentioned that there are a lot of benefit to link vehicle registration data and inspection data, MOI data, GDT(tax) data, and GDCE.
- And above mentioned ideas affect each other, but accuracy vehicle registration information would be the basis of the whole plans.
- After this JCC, JICA team would make the detailed plan and guidelines by the 3rd JCC. In order to achieve this, he requested MPWT to cooperate with JICA team.

<Explanation of each Subject-3.Vehicle Inspection>

- Mr.Takagi Akira made a presentation for vehicle inspection.
- At first, he explained about the schedule and JICA team's activities since 1st JCC, and matters to be approved in this JCC.
- Based on the issues defined in the 1st JCC, he suggested three improvement plans.
  Plan-1)Standards for equipment and inspectors
  Plan-2)Equipment management system
  Plan-3)Prioritization of vehicle inspection items and those guidelines
- As for plan-1, he mentioned that MPWT recognizes necessity of management system of private companies, including human resources and equipment. Currently, Cambodian Prakas prescribes the name of equipment, so he suggested to set standards for equipment and inspectors. In order to achieve this, he is planning to introduce Japanese case and expect MPWT to consider the necessity of modification of those based on Cambodian environment.
- He showed Japanese case, which has technical standards in "Road Vehicle Act". Also, technical standards of sideslip tester in Japan was exampled.
- Regarding plan-2, he explained current situation that MPWT thinks private company doesn't manage their equipment properly, but on the other hand, private company claims they are properly managing their equipment. He pointed out these situation is caused because of the lack of management system. Therefore, he suggested to implement guidelines and check list in order to clarify what should be managed and easily check if private companies manage properly.

- Plan-3 is related to how to heighten inspection technique in Cambodia. Especially, visual inspection is presumably omitted or done inappropriately. In order to prevent such a situation, he suggested to introduce check list for prioritized inspection items. Viewpoint of prioritization is ease of judgement and significance in safety.
- To sum up, MPWT hasn't had management systems and tools for information sharing, but if MPWT adopt abovementioned plans, they would be able to get some reports from private companies which conduct vehicle inspection and easily monitor them based on standards for equipment and inspectors, and also operation and management guidelines.
- How MPWT can make private companies follow these guidelines or checklists would be presented in the next JCC, and JICA team would make some suggestions such as illegal modification.

<MPWT Automation System>

- Mr. Duy Chan Dara explained vehicle management system in Cambodia.
- Vehicle registration has started since 1990, but at first, it was done by hand. Computer based registration system was implemented in 1997.
- Vehicle inspection started in 1990s, but at first, it was visual check only. In 2000, inspection equipment was implemented and computer based management was implemented as well.
- Currently, there are 12 inspection stations, and they are connected each other by cable.
- In 2016, modernization of vehicle registration and inspection system project started, and MPWT has already introduced online vehicle registration system in 2016, and will introduce vehicle inspection system in 2017.

<Q & A Session>

MPWT (Mr. Kong Sophal)

- Does this project scope include comparison of inspection system with Cambodia and the other countries?

MPWT (Mr. Duy Chan Dara)

- Cambodia has already introduced vehicle inspection system of Japanese level.
- Inspection guideline for some of visual check seems to be insufficient.

JICA Expert(Mr.Takagi)

- It includes, but I think, standards is too strict in Cambodia and many inspectors said it was too strict to follow. Also, there are no garage to repair around some inspection

centers. Considering these situation, to start from correction of the inspection rules seems to be appropriate.

GDCE

- There has been meeting between MPWT and GDCE regarding information sharing. I would like to know if the both of the database would be connected from Jul 15, 2017.
- Also, does the shared data includes all the data?

MPWT (Mr. Duy Chan Dara)

- It includes vehicle data only, not include motorcycle.

MPWT (Mr.Chheng Samnang)

- From Jul 15, it will be coneected. I think it has already been prepared.

GDCE

- I understood that the information to be shared includes past data.

MPWT (Mr. Kong Sophal)

- Currently, MPWT is just accumulating the registration data and there is no practical way of delete registration. Do you have any idea of this matter?

MPWT (Mr. Duy Chan Dara)

- I heard that Thailand has a law to delete registration. If the vehicle doesn't have any record over 5years, they move those vehicle to group-1, and if the term of no record exceeds 10years, they move them to group-2 for deletion.

JICA Expert(Mr. Nakagawa)

- There is the similar law in Japan. In Japan, if the vehicle doesn't have any registration and no record of vehicle inspection or tax payment for over five years, MLIT can delete those vehicles from vehicle registration system by their authority.
- Also, the tax system would work well for this matter, if the GDT(tax) impose road tax based on the vehicle registration, vehicle owner would like to delete their registration when they dispose their car.

MPWT (Mr. Kong Sophal)

- But in Cambodia, tax is only when vehicle is imported. Import tax is very high, but it is only once.
- There is road tax as annual tax, but it isn't so expensive.
- Do you have any other ideas?

JICA Expert(Mr. Baltar)

- I had a meeting with Mr. Suon Vanhong and he had a interesting idea, his idea is that MPWT keeps deposit from car buyer when their vehicle registration, and give it back when they make delete registration. It would work well, but there is a problem it needs

some time if we start now.

- So I think to manage dismantlers to do delete registration.

JICA Expert(Ms. Terashima)

- We have many ideas for this matter, but I recognize we haven't discussed enough yet. So from now on, based on our idea, we need to discuss more frequently.

MPWT (Mr. Kong Sophal)

- Today, Mr.Korenori from JASIC is attending this meeting, if there is some examples in Asian countries or so, please let us know.

Mr. Korenori Takeshi(JASIC)

- I am from JASIC Indonesia. Currently, many ASEAN countries discuss about "type approval".
- If the type approval system is adopted, it would reduce ministries' burden. So I would like to recommend you to introduce type approval in Cambodia as well.

MPWT (Mr. Kong Sophal)

- The situation is different between Japan and Cambodia.
- In Cambodia, many cars are second hand, and if they get old, we use those parts (such as engine etc.) for repair of other cars.
- Currently, Ministry of Industry and Handicraft insists MPWT to adopt type approval for vehicle, as they decided to adopt type approval based on ASEAN 2020.

Mr. Korenori Takeshi(JASIC)

- I think Cambodia can introduce them step by step, and it is all right to introduce by 2020.

<Explanation of the Monitoring System>

- Mr. Hirakawa Takaaki explained about monitoring operations.
- At first, he explained what was modified from PDM explained in 1st JCC—Means of verification which is because vehicle registration would be done by car dealers from Jul 1,2017, and indicator2-1 and means of verification, which is because there was an organizational change from "GDT" to "GDLT".
- He explained project monitoring sheet I , and some of objectively verifiable indicators is going to be suggested.
- He started to explain from achievement of "Project Purpose"
- As indicator1 of project purpose, the target values of vehicle registration procedure and vehicle inspection implemented annually are as follows.
  - Number of vehicles registered per annum:70,000 (baseline 60,794)

- Number of vehicles disused per annum:14(baseline N/A)
- Number of vehicles transferred per annum:6,400(baseline 5,800)
- Number of vehicle inspection implemented per annum:250,000(baseline 193,706)

- As indicator 2, satisfaction rating of the applicants exercising vehicle registration procedure is set based on the result of the satisfaction survey held in April and June 2017.
- The satisfaction survey consists of quality of vehicle registration procedure, application services of vehicle registration, and time required for vehicle registration procedure.
- The average satisfaction was 42.6%, so JICA team set the target value at 60% (40% increase).
- As indicator 3, performance assessment of vehicle inspection at centers by the staff of MPWT/DPWT and inspection centers is set based on the performance assessment survey held in April and June 2017.
- The performance assessment survey consists of visual inspection, inspection with testing equipment, and operational management. The average performance assessment was 53.7%, so JICA team set the target value at 70%.

- Next, he explained about "Outputs".
- In order to value "Output 3", JICA team set the number of short term IT plan which should be done during this project at four.
- And as for Output 4, JICA team set the target value of "Self-Rating of MPWT/DPWT staff on vehicle inspection, maintenance. etc." based on the result of self-rating survey.
- The survey consists of understanding of vehicle inspection and maintenance, awareness-raising activities on vehicle inspection and maintenance. The average self-rating was 40%, so JICA team set the target value at 55% (38% increase).

- He moved to explain Overall Goal.
- JICA team hasn't set indicator 2 and indicator 3 yet.
- As for indicator 2, JICA team set the number of vehicle inspection centers fulfilling the certification criteria of MPWT at 12. It means the existing vehicle inspection centers should fulfill the certification criteria.
- And as for indicator 3, JICA team set the percentage of the vehicle inspection implemented to the vehicles necessary for the inspection annually at 81%. Although the rate is the same as the baseline value (in 2016), it might be quite high. But if it seems to be insufficient, the target value would be changed during a JCC meeting in future.

Finally, he emphasized that monitoring system is for this project, but it is important that monitoring should be continuously done even after the termination of this project.

<QA-Session>

MPWT (Mr. Kong Sophal)

- This is the first time we heard about monitoring system. I think it is meaningful that we learn how to evaluate our activities and how to set the target.
- Is this monitoring system for MPWT, or for this project?

JICA Expert(Mr.HIRAKAWA)

- It is for the project.

MPWT (Mr. Kong Sophal)

- I understood. I would like to hear after this JCC.

JICA(Mr.IWASE)

- I am wondering how many portion of people register their vehicles. If there are no exact statistical data, I would like to hear how you think about it.

MPWT (Mr. Kong Sophal)

- I think More than 90%, 95% or so on.

JICA(Mr.IWASE)

- I am happy to hear that.

<Additional Explanation>

- Ms. Terashima explained about the plan of training in japan next year.
- February 2018, seven to eight people from vehicle registration, inspection, and IT system will attend the training.
- The duration of training would be 7 to 8 weekday, but we are thinking that vehicle registration and IT system members will end the training at the end of the first week, but vehicle inspection members continues and will be trained for seven to eight weekdays training.

<Closing Remarks>

- Mr. Kong Sophal described that the prime minister is fostering modernization of transport sector, so it is very good timing to have this project.
- And lastly, he agreed on all the subjects the experts explained.

Appendix: Attendees List

No.	Name	Position	Ministry/Institution
1	Mr. Kong Sophal	DDG of Transport Department	GDLT, MPWT
2	Mr.Taing Peou	Deputy Director of vehicle inspection office	GDLT, MPWT
3	Mr.Leng Vantha	Deputy Director of vehicle inspection office	GDLT, MPWT
4	Mr. Duy Chan Dara	Deputy Director of vehicle inspection office	GDLT, MPWT
5	Mr. Dy Lada	Chief of Business Transport Office	GDLT, MPWT
6	Mr. Chheng Samnang	Deputy Chief of statistic & data collection office	GDLT, MPWT
7	Mr. Kang Chhoeoung	Deputy Chief of Registration Office	GDLT, MPWT
8	Mr. Un Vath	Deputy Chief of vehicle inspection office	GDLT, MPWT
9	Mr. Heang Sotheayuth	Director of IT and PR department	MPWT
10	Mr. Pon Sokuntheara	Deputy Director of IT and PR department	MPWT
11	Mr. Teas Dararoth	Cabinet Official	MPWT
12	Mr. Chhan Rathana	Officer of IT and PR department	MPWT
13	Mr. Theng Sithong	Officer of IT and PR department	MPWT
14	Mr. Din Savuth	Chief of the office	GDTax, MoEF
15	Mr. Sok Pany	Officer	GDTax, MoEF
16	Mr. Oeng Sophea	Officer	GDTax, MoEF
17	Mr. Pen Pichdaro	Officer	GDTax, MoEF
18	Mr. Chuob Chandara	Officer	GDTax, MoEF
19	Mr. Nuon Chanrith	Deputy Director General	GDCE,MoEF
20	Mr. Por Soun	Deputy Director	
21	Mr. Chuon Chanphea	Chief of the office	GDCE,MoEF
22	Mr. Sovan Sireywadh	Deputy Chief	GDCE,MoEF
23	Mr. Huon Chanrathnanak	Deputy Director	Police, MoI
24	Mr. They Visal	Deputy Office Chief	Police, MoI
25	Mr. Nak Pisey	Deputy Director	Police, MoI
26	Mr. Neak Rameth	Officer	Police, MoI
27	Mr. Sim Visal	IT Officer	Police, MoI
28	Mr. Chhun Vanna	Deputy Director	GDID, MoI
29	Mr. Tanaka Kotaro	Senior Representative	JICA Cambodia Office
30	Mr. Iwase Hideaki	Project Formulation Advisor	JICA Cambodia Office
31	Mrs. Seng Solady	Program Officer	JICA Cambodia Office
32	Mr. Ota Masaya	Long Term Expert	JICA, MPWT
33	Ms. Nakamura Nori	Long Term Expert	JICA, MPWT
34	Ms. Terashima Tomomi	JICA short term expert	JICA, MPWT
35	Mr. Takaoka Hirobumi	Consultant	JICA, MPWT
36	Mr. Nakagawa Yu	Consultant	JICA, MPWT
37	Mr. Germanico Baltar	Consultant	JICA, MPWT
38	Mr. Ono Takumi	Consultant	JICA, MPWT
39	Mr. Takagi Akira	Consultant	JICA, MPWT
40	Mr. Yamamoto Shosei	Consultant	JICA, MPWT
41	Mr. Hirakawa Takaaki	Consultant	JICA, MPWT
42	Mr. Umezawa Susumu	Consultant	JICA, MPWT

43	Ms. Oeng Sodavy	Project Assistant	JICA MVRI, MPWT
44	Mr. Seng An Youk	Project Assistant	JICA MVRI, MPWT
45	Mr. Kume Hidetoshi	JICA Expert	JICA,MPWT
46	Ms. Chhoeurk Bomey	Project Assistant	JICA MVRI, MPWT
37	Mr. Korenori Takeshi	Director	JASIC

The 3rd JCC Meeting

Project for Modernization of Vehicle Registration and Inspection Administration System

Minutes of Meeting

December 18, 2017, Phnom Penh Hotel

Introduction

The 3rd JCC meeting of the JICA Project for Modernization of Vehicle Registration and Inspection Administration System was called to order at 09:00am to 11:45fam on 18th December, 2017 in Phnom Penh Hotel, Crystal Ballroom, presided over by **H.E Tauch Chankosal**, Secretary of State, Ministry of Public Works and Transport.

Attendance

Ministry of Public Works and Transport

H.E. Tauch Chankosal	Secretary of State
H.E. Peou Maly	Director General of General Department of Land Transport (GDLT)
Mr. Kong Sophal	Deputy Director General of GDLT
Mr. Suon Vanhong	Deputy Director General of GDLT
Mr. So Pisey	Deputy Director General of GDLT
Mr. Heang Sotheayuth	Director of IT and PR department
Mr. Teas Dararoth	Deputy Director of IT and PR department
Mr. Duy Chan Dara	Deputy Director of GDLT
Mr. Taing Peou	Chief of Vehicle Inspection Office
Mr. Leng Vantha	Chief of Operation License Office
Mr. Dy Lada	Chief of Business Transport Office
Mr. Chheng Samnang	Deputy Chief of Statistic & Data Collection Office
Mr. Kang Chhoeoung	Deputy Chief of Vehicle Registration Office
Mr. Un Vath	Deputy Chief of Vehicle Inspection Office
Mr. Seat Sovann	Officer of IT&PR Department, MPWT
Mr. Leng Makara	Officer of IT&PR Department, MPWT
Mr. Lmut Raksmey	Officer of IT&PR Department, MPWT
Mr. Kheng Socheat	Officer of Vehicle Registration Office, MPWT

General Department of Taxation, Ministry of Economy and Finance

H.E. Ken Sambath	Deputy Director General of General Department of Taxation (GDTax)
Mr. Holl Thirith	Deputy Director of GDTax
Mr. Ban Dyvitu	Chief of IT Bureau

General Department of Customs and Excise, Ministry of Economy and Finance

H.E Nuon Chanrith	Deputy Director General
Mr. Sok Sovithyea	Deputy Director of Department of Planning, Technique and International Affairs
Mr. Chuon Chansophea	Chief of IT Office

Mr. Sovan Sireywadh	Deputy Chief of Customs Technique Office

General Department of Traffic Safety, Ministry of Interior

H.E Run Rathveasna	Director of Traffic Police Department
Mr. They Visal	Chief Office
Mr. Nak Pisey	Officer

General Department of Identification, Ministry of Interior

H.E Khieng Sokunthea	Director of ID Department
Mr. Leng To	Chief Office
Mr. Koeun Mesa	Deputy Chief
Mr. Sem Chenda	Deputy Chief

Japan International Cooperation Agency

Mr. Tanaka Kotaro	Senior Representative of JICA Cambodia Office
Mr. Iwase Hideaki	Project Formulation Advisor of JICA Cambodia Office
Mrs. Seng Solady	Program Officer
Mr. Ota Masaya	JICA Project Chief Advisor
Ms. Nakamura Nori	JICA Project Coodinator
Ms. Terashima Tomomi	JICA Short Term Expert
Mr. Nakagawa Yu	JICA Short Term Expert
Mr. Takagi Akira	JICA Short Term Expert
Mr. Ono Takumi	JICA Short Term Expert
Mr. Hirakawa Takaaki	JICA Short Term Expert
Ms. Oeng Sodavy	Project Assistant
Mr. Seng An Youk	Project Assistant

Observers

Ms. Seak Eng	Officer, CRDB/CDC
Mr. Kume Hedetoshi	JICA Advisor, MPWT
Ms. Chheourk Bomey	Assistant to JICA Advisor, MPWT

Agenda

1. Opening remarks
   - 1.1 H.E. Tauch Chankosal, Secretary of State
   - 1.2 Mr. Tanaka Kotaro, Deputy Chief Representative of JICA Cambodia Office
2. Presentation
   - 2.1 Brief Report
   - 2.2 MPWT Over view of the project
   - 2.3 Presentation on IT System, concrete improvement activities
   - 2.4 Vehicle registration, concrete improvement activities
   - 2.5 Vehicle inspection system, concrete improvement activities
   - 2.6 Monitoring the actual achievement
   - 2.7 Questions & answers
3. Closing Remarks and wrap-up by H.E. Tauch Chankosal

Points to be approved in the meeting

- Vehicle Registration: Modification of the issues to be treated and the concrete improvement measures. Related Prakas: No.46, Procedure of vehicle registration and delete registration and No. 119, Procedures of the transfer ownership of vehicle that can not be found the original owner.
- Vehicle Inspection: Modification of the issues to be treated and the concrete improvement measures including the guidelines and check lists. Related Prakas are No.45, 312, 332, 363.
- IT System: System...Progress of the short-term strategy and Direction of the Long-Middle term strategy.

1. Opening Remarks

1) First opening remarks have stated by chair of the meeting **H.E Tauch Chankosal**, Secretary of State, MPWT as flows:

- The importance for the safety and environmental consideration in transport sector
- The importance of a proper management and effective use of vehicle registration information
- Implemented activities
- Approval for concrete improvement activities in the three fields of vehicle registration, inspection and IT system in the MVRI project
- Request the provision of necessary equipment of IT system to JICA through MVRI project
- Request for grant aid for the establishment of the new data center, development of application of vehicle information sharing IT system, and capacity building for IT staff in the future.

2) Second opening remarks have stated by **Mr. Tanaka Kotaro**, Senior Representative of JICA Cambodia Office as follows:

- MPWT is promoting improvement of IT system for vehicle inspection and registration under the direction of Senior Minister H.E. Sun Chanthol. And further information sharing with related ministries will be started from next January.
- Recently, we have been requested to supply some parts of the equipment by MPWT for enhancing the capacity of the system through MVRI project.
- MVRI project is conducting improvement activities related to vehicle inspection, registration and IT system. It is very important to improve the IT system and vehicle inspection and registration policy simultaneously. So, JICA would like to ask MPWT to work closely with project experts.
- JICA aiming to get an approval of concrete activities in each field in this JCC meeting. Based on today's meeting, we would like to ask MPWT to promote activities diligently from now on.

2. Brief Report and Presentation

2.1 Brief Report

H.E Peou Maly, Director General of General Department of Land Transport, MPWT reported the recent activities and summary of today's presentations briefly as below:

- Statement on the Improvement of Vehicle Registration

- Background of the establishment of a new online application system and its operation.
- The insufficient functioning for the procedures of inspection and registration system, and improvement activities with JICA/MVRI to solve those issues.
- Concrete improvement activities and obtaining agreement of related parties.
- Suggestion to advance the discussion on the development of related law and Prakas.

2.2 Overview of the Project by Mr. Duy Chan Dara

After the opening remarks and brief report, Mr. Duy Chan Dara, Deputy Director of Land Transport Department reported the general overview of the project that the project's objective is to improve the vehicle registration and inspection system in Cambodia through three pillars: improvement of the registration, inspection and IT system. The purposes of the 3rd JCC meeting are: 1). Get an approval of the concrete improvement measures for vehicle registration 2). Get an approval of the concrete improvement measures including the guidelines and check lists for vehicle inspection 3). Progress of the IT short term strategy showing some contents and get an approval of IT road map and 4). Explanation of the checklist for project monitoring and 5). Introduction of the additional information of training in Japan in February 2018 and it is planned to dispatch seven MPWT's officials (Mr. Suon Vanhong, Mr. So Pisey, Mr. Chheng Samnang, Mr. Taing Peou, Mr. Sum Lyna, Mr. Chea Chandaravuth, Mr. Kheng Socheat) for the training.

2.3 IT System by Mr. Heang Sotheayuth

Next agenda is the presentation on the IT system by Mr. Heang Sotheayuth, Director of IT/PR Department. He briefed the overall objective of the IT system is to build a foundation of IT system to achieve sustainable development. To realize above mentioned objective, short term and mid long-term strategy is introduced. In the mid long-term strategy, it consists of three elements:

1). Realization of the stable and efficient application: JICA/MVRI is considering the possibility to construct the IT system "Information Sharing System". While the policy on the classification and utilization of the information with concerned government entities including various sections of MPWT, MEF(GDT), MEF (GDCE), MoI (ID), MoI (Police), and private companies introduced.

2). Realization of the stable and efficient IT infrastructure: In order to realize a stable and efficient system, it is indispensable to construct a fully designed IT infrastructure. Currently, the system is operated using a server temporarily prepared within a private company facility. However, since 2017, a new building has been built on the premises in MPWT, and it is said that the one floor will be used as an IT infrastructure. However, special requirements are required for the data center, and it is often the case that general office buildings cannot meet the standards. Based on the survey, we found that the container type has high reliability for the data center. However, the container type data center required land for installing a container, if it is difficult to secure the land, other method should be considered.

3). Development of Human Resources: Engineers will be dispatched from Japan to Cambodia to implement the system development together with MPWT official related to the practical skills on system operation management and maintenance.

Based on the mid and long-term strategy, short term strategy will be carried out during the project period as below:

1). Suggest Interface Specifications for Information Sharing with External Administrative Organizations: We proposed the interface for information sharing with external administrative organization in Cambodia. MPWT and JICA/MVRI had agreed on this and the development will be implemented based on the agreement.

2). Conduct the Security Diagnosis: JICA/MVRI will dispatch engineers from Japan to carry out the security diagnosis on application and network diagnosis for the vehicle registration only. To conduct the security diagnosis, full cooperation by MPWT is dispensable for this implementation and JICA/MVRI asked for the adjustment of the schedule and preparation of the application/network equipment for testing.

3). Suggest Operational Rules for Online Application System: JICA/MVRI has created the operation rules that are essential for operating system. Lots of procedures have to be prepared for the system operation, but for actual utilization, we specified the important types and created particular important manual called "Incident Management Manual" and "Problem Management Manual".

4). Suggest IT Infrastructure Requirements: JICA/MVRI and IT/PR department of MPWT investigated and proposed specification requirement for the IT infrastructure and system with very high importance in Cambodia. We presented several solutions to meet the specifications and based on those, MPWT will decide the solution after conducting some studies.

5). Support Introducing Servers and Middleware: The reform of data center is needed from the perspective of long-term. However, the situation has changed from our recognition, the data center is urgently needed before the middle of 2018. So, we will try to support introducing equipment list prepared by MPWT.

The schedule for implementation of the short-term strategy proposed to start by the end of December 2017 and to complete by June 2018. While mid long-term strategy will last for 5 months for preparatory survey and 1-year implementation of Grant Aid Project. The detail of the progress report on IT system is attached in Annex 1.

2.4 Vehicle Registration System by Mr. Chheng Samnang and Mr. Nakagawa Yu

Mr. Chheng Samnang, Deputy Chief of Administration and Research Office, started the presentation with the current situation of vehicle registration. He reported that MPWT has been conducting the critical reform in the vehicle registration services. The reform

included:

- Automation Registration System aimed to facilitate their vehicle registration in a time saving and less bureaucratic manner
- Online payments: Pay by their own
  - WING
  - Smartluy
  - Ly Hour Veluy
- Onsite registration:
  - 25 provinces, 52 One Windows Services and General Department of Road Transport
- On shop registration (Auto Dealers)
  - 210 auto dealers are provided right for registration
- Online car registration https://vehicle.mpwt.gov.kh/
  - Booking the favorite lucky number
  - Register vehicle by your own

From 1990 to 14 December 2017, total vehicle registration is: 4,144,459 having Automobiles (Bus, track, trailer): 605,960 vehicles and Motorcycles: 3,538,499 vehicles.

The increasing rate of the number of registered vehicles about 23%/Year_(from 2014 – 2016).

For the vehicle ownership transfer in 2017, the total of vehicle is 12,125. Despite the recent growth of the vehicle registration, he reported some challenges as below:

- Service related to General Department of Taxation
  - Take time to pay transfer ownership tax
  - Limited accuracy verification
- Buying vehicle without transfer ownership
- Cannot be transferred ownership without the owner of the vehicles
- Mostly no deletion report to MPWT
- Deregistration procedures were not carried out at the time of disposal/export

Turning to the improvement measures on the vehicle registration, after the overview explanation of improvement plan from Mr. Chheng Samnang, Mr. Yu Nakagawa, short term JICA Experts, presented the detail of improvement plan and road map proposed by JICA/MVRI as below:

- Correspondence to that vehicle information registered in the past has not been up-dated:
  - Promotion of ownership transfer registration even when registered owner is un-known: The awareness campaign and public relation to be carried out based on reissue Prakas No. 119 from January 2018 to June 2019. If necessary, it shall be continued.
  - Response to cases where deregistration procedures were not carried out at the time of disposal / export: need to develop the criteria for vehicle deregistration that MPWT staff can do then need to conduct the PR activities. The new deregistration

system by MPWT will be implemented around July 2019.

- Correspondence to that the property of the vehicle owner is not protected
  - Prevent the leasing company (vehicle owner) from the liability of accidents and traffic violations caused by lessee: need to amend Prakas for user information management and the updates of the IT system from January 2018 to June 2019. The correspondence will be implemented around July 2019.
  - Prevent vehicle owned by the loan company from being resold by the user before full repayment without owner's consent: Planning the detail of the implementation (Ex. to register vehicle registration information of vehicle's owner and user separately.) from January 2018 to June 2019. The plan will be implemented around July 2019.
- Correspondence to that secure registration system operation is not being carried out
  - Ensure secure initial registration operation: Preparation of the implementation from January 2018 to June 2019. The new operation procedure based on revised manuals for car dealers will be started around July 2019.
  - Ensure secure ownership transfer registration operation: need to discuss with MEF (GDTax) on the vehicle and user's information sharing from January 2018 to June 2019. It will be implemented around July 2019.
  - Ensures deregistration operation: Need to discuss with MEF for deposit account from January 2018 to June 2019. It will be implemented in July 2019.
- Guideline and check list: submit the guideline and checklist for vehicle registration procedures, but it need to be revised based on above mentioned activities.
- Correspondence to that vehicle registration information is not utilized for related ministries: This has been covered in the presentation of IT system

In addition, Mr. Nakagawa added that there is no single measure to keep registration accuracy, and necessary to mixing up several measures and related ministries' cooperation. He re-indicated the request for approval on short/mid-term measures and make a progress moving forward of these improvement plan as below:

- **Correction of inaccurate registration in the Past**
  - No Ownership transfer ⇒ Accept ownership transfer without registered owner agreement (Temporary Prakas) and PR activities
  - No Delete registration ⇒ Delete registered vehicle with no registration, tax payment and no inspection more than 3 years, by MPWT staff having prior consent with the registered vehicle owner (criteria should be discussed) and PR activities
- **Protection for property of vehicle owner**
  - Register owner name and user info (Change Prakas /IT system)
  - Input a code "with loan" to MPWT so that owner cannot sell their car without full loan repayment (Change operation manuals/IT system(operation))
- **Ensure registration system operation**
  - Promotion of efficient online registration by car dealers
  - Suggest to improve car dealer manuals
  - GDT(tax) imposing road tax based on vehicle registration info managed by MPWT
  - Implement Deposit System as incentives to delete registration
- **Guidelines and checklist (based on the current legal basis)**
  - Make clear how to register/deregister/transfer vehicle for GDLT/DPWT staffs.

The detail of the progress report on vehicle registration is attached in Annex 2.

2.5 Vehicle Inspection System by Mr. Taing Peou

The next agenda was the presentation on the vehicle inspection by Mr. Taing Peou, Chief of Inspection Bureau of GDLT/MPWT. He reported the overview of the vehicle inspection in Cambodia that there are 14 inspection centers in Cambodia and 3 mobile inspection units. The total number of vehicle inspection by the inspection center in from January to November 2017 is 200,038 and by the mobile inspection unit is 16,037. In the recent monitoring, it is found that there is still the limitation of the inspector's capacity, no proper plan of inspection equipment maintenance and calibration.

He briefed the activities after the last JCC meeting in which JICA/MVRI has been working on development of the inspection guidelines to address issues that we identified; (1) lack of standards for centers, equipment and inspectors, (2) poor practice of visual inspection, and (3) lack of proper equipment management system.

Coming the items to get approval from the meeting, he started as below:

- Standard
  - Requirements for Vehicle Inspection Centers: Facilities / Premises (e.g. face onto a boulevard, paved on the center premises), Inspection Equipment, Maintenance and Calibration of Equipment, Requirements for staff (e.g. a person in charge of center/equipment, inspectors), Inspection Procedure, Record keeping / Reporting
  - Requirements for inspector: (1) Ability to read and write Khmer language, (2) Driver's license (license by type of vehicle), Inspector Certification from GDT, (1) & (2) are only for new inspectors
  - Technical standards for Inspection Equipment: standards consist of three categories: (1) structure, items such as functions and size of elements are described (2) indicator, for example, minimum and maximum scale value is defined (3) Accuracy part, most importantly, defines the permissible error range

- Visual inspection: JICA/MVRI has developed the visual inspection manual focused on the prioritized items: wiper, windshield, seat-belt, door/door hinge, Driver seat / front passenger seat, tires, wheel nut/hub bolt, side guard, turn signal, brake lump, radiator, engine, gearbox& differential, steering gearbox, steering, stabilizer, Propeller shaft /joint, leaf spring shackle / U bolt, brake pipe/hose, shock absorber, fuel pipe, drive shaft, exhaust pipe/silencer, and frame/body.

  The visual inspection manual gives explanation on the inspection methods for the prioritized visual inspection items and standards for judgement. The manual consists of "appearance inspection" and "underbody inspection". Both category have the same structure. Each inspection item has one or several check points. Inspectors are expected to inspect each item according to the check points explained in the item. Each check point illustrate what inspector should do and how inspector should make a judgment.

  In addition to manual, the check list for the visual inspection also introduced. The users of the check list are inspectors. Inspectors are required to record the results of

inspections on the check sheet each time when they inspect a vehicle. Inspection centers keep the sheets.

MPWT are to check if inspectors use the check list properly. Every quarterly, 30 check sheets are selected randomly from each inspection center and are checked against the data on the system.

MPWT can check sheets, anytime whenever the need arises. MPWT also can check if inspectors use the check sheet properly by visiting inspection centers whenever the need arises.

- Maintenance of equipment: Inspection equipment is required to meet the technical standards, and be maintained to ensure conformity to the standards. The manual also illustrates how the equipment should be managed after its installation. The process starts with the registry. Then, inspection centers must do routine maintenance of equipment every one, three or twelve months, according to the manual. After doing maintenance, centers keep a simple log using the check sheets. When centers conduct calibration of equipment or repair equipment, centers need to update the registry of the equipment
- Monitoring the inspection centers: When any violation against guidelines and relevant regulations is confirmed at an inspection center, penalty points are to be added to the center. That way, violation situations at each center are visualized with the points. That enable MPWT understand the situation easily and take necessary measures through monitoring the status of implementation of the inspection centers.

To achieve the operation based on the guideline, he reported the tentative schedule as follows:

- Standards: For inspectors, a certification system will be introduced. GDT is to prepare the training course for inspectors based on the manual in 6 months then proceed with preparation of the training while waiting for approval from MPWT from January to June 2018
- Inspection Visual inspection: After GDT prepared the training course, GDT will start to conduct training. The first training is for GDT/DPWT official to get them understand the rules. The next training will be held for the 20 inspectors in Phnom Penh selected from at CMVIC and HK. After the first training for inspectors, the implementation will be commencement at an inspection center of CMVIC (in GDT) and HK in Phnom Penh for 3 months. During this piloting, ongoing monitoring will be conducted, so that the guidelines can be reviewed and revised if necessary prior to the implementation for all the inspection centers.
- Maintenance and Calibration: After getting approval from MPWT, it will start implementation at two inspection centers in PP for 3 months (March to June)
  One center from CMVIC (in GDT) and one center from HK. During this piloting, ongoing monitoring will be conducted, so that the guidelines can be reviewed and revised if necessary prior to the implementation for all the inspection centers.

To get the better insight on the vehicle inspection system, he also briefed the case

studies from the other countries on the incentive for promotion of vehicle inspection and compulsory third-party insurance to the meeting.

The detail of the progress report on vehicle inspection is attached in Annex 3.

2.6 Monitoring the actual achievement

Mr. Hirakwa Takaaki, Short term JICA expert, introduced the monitoring purposes that Monitoring is routine work that is project-internal. After the commencement of the Project, monitoring operations are conducted so as to check whether or not project activities are implemented and project outputs are produced as planned. The specific contents of the monitoring systems are as follows:

- Components of PDM (narrative summary, indicators, means of verification);
- Monitoring method (persons/organizations in charge, frequency, remarks);
- Target value (baseline value, final target value); and
- Achievements of each financial year (FY 2017, 2018, and 2019).

The overall progress for the vehicle registration and inspection as of 14th December 2017, the achievement is as below:

- Vehicle registration: Baseline value: 60,794, target value: 70,000
- Vehicle ownership transfer: Baseline value: 5,800, target value: 6,400
- Vehicle inspection: Baseline value: 193,706 target values: 250,000

He highlighted the steps forward to achieve the outputs of the project by tracking indicators. **Indicator 2: Implementation of the vehicle registration along the checklist of vehicle registration procedure:** The vehicle registration administration system would be strengthened if the registration procedure is carried out along the checklists of new vehicle, deletion, and transfer registration in the Guidelines Appendix 1: "Checklist for Operating Vehicle Registration Administrative System. GDLT/DPWT registration office can check the progress on a quarterly basis by using the Checklist of Vehicle Registration Procedure introduced by the JICA/MVRI.

In the indicator 2 for the **Implementation of the vehicle inspection along the checklist of vehicle inspection** by carrying out visual inspection using the checklists for Visual Inspection for appearance and underbody. Every quarter, GDLT/MPWT can confirm the effective utilization of these checklists at inspection centers across the country through monitors that is expected to begin from August 2018.

In 2017, there were at least two PR activities carried out by MPWT and IT/PR Department established the booth of online application for vehicle registration and inspection. The Department promoted PR activities and distributed novelty goods of the Project to visitors, such as leaflets, pens, and bags.

2.7 Q & A Sessions

Questioned and recommended from Mr. Kong Sophal, Deputy Director General of GDLT:

1. Request for include some part into the project in term of human resource development. So far, we have many training already, but the training did not produce any specific advantages for the ministry. Is it possible to include an incentive training like a vehicle inspector training into this project? It would be great if JICA could provide the specific technical training to GDLT's inspectors.
2. According to the last meeting with JASIC, GDLT have discussed on the Type Approval. The project should cooperate or working with JASIC on the vehicle type approval because ASEAN is under the preparation of the mutual definition of type approval and Cambodia is shortage of the expert in this area. Within less than 2 years, GDLT is planning to apply the type approval agreement and planning to apply 19 items base on the ASEAN agreement. My recommendation is to engage JASIC into this project to give us more efficiency in type approval.
3. Base on the last presentation, regarding the vehicle deregistration; he heard about the introduction of deposit amount during the registration. He thinks this procedure is difficult to apply in the present Cambodia according to the living standard of the people in Cambodia. His opinion, the best way is to link this deposit amount with the General Department of Taxation which is the best way to control the number of vehicle using on the road. For the road tax, if the people don't pay for the road tax, they can't use the road. It's based on the law enforcement, if the law enforcement not very strict we also cannot take any efficiency actions.
4. The monitoring of the project, He'd like to confirm about my understanding whether the monitoring is just for the project only but not monitoring on the whole process of Cambodia.

Mr. Suon Vanhong, Deputy Director General of GDLT has also extended his idea and explained about the previous activities on the car deregistration as below:

- For the amount deposit during the car registration, we have learnt from the other country and considered to apply this procedure in to the Sub-Decree of Vehicle registration but it needs support from the high level, because the living condition of Cambodia people is still low. According to other country, they renew the registration every year, but in Cambodia, they just make the car registration only one time for the whole use of vehicle, except the case of vehicle ownership transfer or request for renewing the ID card etc. We are also considering how to include the deregistration of the car into our online IT system in the future. I think if we have not specific requirement stipulated into the Prakas, Sub-Decree or Law enforcement, we are hard to ask the vehicle owner to proceed the car deregistration procedure.
- In terms of monitoring, if we want to improve the vehicle registration systems, we should have actual checking at each registration office to see the real situation and problem when people come to register their vehicle. If it just gets data from the system, it is not realistic approach to improve the registration system.

JICA short term expert Terashima Tomomi answered a part of these questions.

- In regard to the training, we will hold training in Japan, and this time inspection staffs can receive more specific training in the second week. But we will consider the possibility of the longer term more specific training.
- As for deposit, we have heard it would be tough, but I think we need to set some incentives for deregistration. Also, we think if the tax is imposed based on MPWT information, it would be effective. But I think it is difficult at the present because the information isn't accurate enough.

H.E Ken Sambath, Deputy Director General of Taxation Bauru has reported and answered on the related question from GDLT as below:

- To feedback to the comment from Mr. Kong Sophal regarding the law enforcement. In compliant to the Law enforcement on Road Tax, GDTax has made various progresses and reform the measurements on Road Tax collection. Therefore, GDTax has the right to impose penalty to the vehicle owner who didn't pay tax on time. And we also dispatched our inspection team, cooperated with the traffic police and national arm force to inspection on the road to check for the vehicle which didn't pay for the road tax and found around 6,000 cars on the road had penalized. From January 2017 to November 2017 (totally 11 months) GDTax has collected the road tax payment approximate 57 million dollars. This digit of road tax collection has increased around more than 10% compared to the previous year and if we compare to our budget plan, we have achieved more than 23%.
- If MPWT has the sufficient of Vehicle Registration system with full vehicle information in the future, he believes that GDTax would be able to collect the road tax adequately through the system connection between both institutions. According to the report from GDLT, there are about 600,000 cars have been registered. He thinks that this number is not the real one, because so far; GDLT hasn't implemented car deregistration system yet. So some of those are already unused or have been already destroyed partly etc. Thus, if MPWT can develop the vehicle registration with duly information and share with GDTax, it would be great appreciated.
- He heard the proposal from JICA about the deposit account. It's a good idea, but I also agree with MPWT that we cannot apply this procedure at this time due to the Cambodia situation of the living standard of the people who are not rich enough to pay for the deposit amount. But in the future if our country develops better and better, he thinks in 2050 they can introduce to impose this procedure of deposit amount such as the other developed countries.

H.E. Nuon Chanrith, Deputy Director of GDCE, MEF has expressed some opinion about the 3rd JCC meeting of MVRI project and system connection between MPWT and GDCE:

- On behalf of GDCE, he would like to express our appreciation to MPWT in collaboration with JICA for established the project for Modernization of Vehicle Registration and Inspection System which is a very important system to support Cambodia not only the transport facilitation but also to ensure compliant.
- IT team of GDCE and IT team of MPWT have been working together on the system connection and the system will be completed very soon. He does hope

that after the system has connected and implemented the new system which will be connected the information from MPWT and GDCE, the system will serve the transport facilitation and compliant.

3. Closing and wrap-up

Based on the closing remarks by H.E Tauch Chankosal, Secretary of State of MPWT at the end of the meeting, some proposed activities have been wrapped-up as below:

- All proposed activities have been approved through today's meeting except the deposit account when vehicle registration as incentives to delete registration. But JICA/MVRI can introduce some way for implementation of deposit account as reference.
- MPWT would like to proceed with necessary preparations so that we can certainly carry out each approved activity from now on. From next January, information sharing with related ministries will also be started, so establishment of IT system will become more important. On the other hand, not only IT system but also the improvement activities related to vehicle inspection and registration policy are particularly important. I hope MPWT can corporate with JICA experts continuously so that we can accomplish the improvement of transport sector.
- We should make every effort to promote the operation of the improvement activities and corporate with MVRI project spontaneously.

Confirmed By:

H.E. TAUCH Chankosal
Secretary of State
Ministry of Public Works and Transport

TANAKA Kotaro
Deputy Chief Representative
JICA Cambodia Office

OTA Masaya
Chief Advisor
JICA/MVRI

The 4th JCC Meeting
Project for Modernization of Vehicle Registration and Inspection Administration System
Minutes of Meeting
June 6, 2018, Phnom Penh Hotel

Introduction

The regular bi-annual meeting of the JICA Project for Modernization of Vehicle Registration and Inspection Administration System was called to order at 14:30pm to 16:45pm on 06th June, 2018 in Phnom Penh Hotel, Jasmine Ballroom, presided over by **H.E Tauch Chankosal**, Secretary of State, Ministry of Public Works and Transport.

Attendance

Ministry of Public Works and Transport

H.E. Tauch Chankosal	Secretary of State
H.E. Chhoun Voun	General Director of General Department of Transport
Mr. Kong Sophal	Deputy Director General of GDLT
Mr. Suon Vanhong	Deputy Director General of GDLT
Mr. So Pisey	Deputy Director General of GDLT
Mr. Heang Sotheayuth	Director of IT and PR department
Mr. Teas Dararoth	Deputy Director of IT and PR department
Mr. Duy Chan Dara	Deputy Director of GDLT
Mrs. Men Chansokol	Chief of Department
Mr. Taing Peou	Chief of Vehicle Inspection Office
Mr. Uy Sovannarith	Chief of Vehicle Registration Office
Mr. Chheng Samnang	Deputy Chief of Statistic & Data Collection Office
Mr. Un Vath	Deputy Chief of Vehicle Inspection Office
Mr. Touch Eng Leang	Deputy Chief
Mr. Tim Odom	Officer
Mr. Na Sambathnureak	Officer
Ms. Phall Samros	Officer
Mr. Phall Rotha	Officer

General Department of Taxation, Ministry of Economy and Finance

Mr. Holl Thirith	Deputy Director of GDTax
Ms. Yin Sotheavy	Chief Officer
Ms. Khan Sokumchhorvy	Officer

General Department of Customs and Excise, Ministry of Economy and Finance

Mr. Sok Sovithyea	Dirctor of Department
Mr. San Chamroeun	Officer
Mr. Moeun Sopheakdey	Officer
Mr. Sovan Sireywadh	Deputy Chief of Customs Technique Office

General Department of Traffic Safety, Ministry of Interior

H.E Run Rathveasna	Director of Traffic Police Department
Mr. Heng Phanith	Chief Office
Mr. Nak Pisey	Officer

General Department of Identification, Ministry of Interior

H.E Khieng Sokunthea	Director of ID Department

Japan International Cooperation Agency

Mr. Tanaka Kotaro	Deputy Chief Representative of JICA Cambodia Office
Mr. Iwase Hideaki	Project Formulation Advisor of JICA Cambodia Office
Mr. Ota Masaya	JICA Project Chief Advisor
Ms. Nakamura Nori	JICA Project Coordinator
Ms. Terashima Tomomi	JICA Short Term Expert
Mr. Nakagawa Yu	JICA Short Term Expert
Mr. Takagi Akira	JICA Short Term Expert
Mr. Ono Takumi	JICA Short Term Expert
Mr. Hirakawa Takaaki	JICA Short Term Expert
Mr. Sato Makoto	JICA Short Term Expert
Ms. Oeng Sodavy	Project Assistant
Ms. Pich Kimthea	Project Assistant

Observers

Mr. Tokiwa Yoshifumi	Senior Manager NTT DATA
Mr. Korenori Takeshi	Chief Representative JASIC
Mr. Kawasaki Toshimasa	JICA Expert
Ms. Chhim Vanlida	Assistant of Expert
Ms. Phana Venida	Officer, CRDB/CDC
Ms. Seak Eng	Officer, CRDB/CDC

Agenda

1. Opening remarks
   - 1.1 H.E. Tauch Chankosal, Secretary of State
   - 1.2 Mr. Tanaka Kotaro, Deputy Chief Representative of JICA Cambodia Office
2. Presentation
   - 2.1 Summary of MVRI project progress
   - 2.2 IT System: Presentation on concrete improvement activities and report of progress request of grant aid.
   - 2.3 Registration: Presentation on concrete improvement activities and explanation of improvement plan
   - 2.4 Inspection: Presentation on concrete improvement activities and explanation of improvement plan
   - 2.5 Q&A Session
   - 2.6 Monitoring: Presentation on the actual achievement

2.7 Public Relation: Presentation on PR activities

3. Closing Remarks and wrap-up by H.E. Tauch Chankosal, Secretary of State of Ministry of Public Works and Transport

Points to be approved in the meeting:

- IT System: The best practice for IT solution shared by Japanese Experts.
- Registration: The equipment to improve registration system
- Inspection:
  - Inspection guideline training on June 13-16, 2018 at GDLT
  - Training in Japan in January 2019
- Monitoring:
  - Monitoring result
  - Regarding each report
- Public Relation:
  - The supportive document from JICA to revise Prakas and contribute for effective public awareness.
  - PR activity plan

1. Opening Remarks

1) First opening remarks have stated by chair of the meeting **H.E Tauch Chankosal**, Secretary of State, MPWT as follows:

Recent progress of the MPWT activities

- Recognition of importance in transport sector: the safety and environmental consideration, proper management and effective use of vehicle registration information.
- Introduction of some implemented activities on the improvement of road safety: the revision of Road Traffic Law, formulation of the National Road Safety Committee and the reinforcement of the crackdown on the overload vehicle on the road

The purpose of the 4th JCC

- Confirmation and approval for concrete improvement activities in the three fields of vehicle registration, inspection and IT system in the MVRI project

Other requests to Japan

- Request the provision of necessary equipment to JICA through MVRI project
- Request for grant aid for the establishment of the new data center, development of application of vehicle information IT system, and capacity building for IT staff in the future.
- Request to MLIT of Japan to give the concern of MLIT to Ministry of Foreign Affairs in order to accelerate further assistance within 2019.

2) Second opening remarks are stated by Mr. Tanaka Kotaro, Deputy Chief Representative of JICA Cambodia Office as follows:

- Through the MVRI activities for the past two years, some significant achievements have already been accomplished through the joint taskforce of project counterpart from MPWT and other relevant ministries.
- The achievements to be noticed are as follows:

1. The information sharing of vehicle inspection and registration with the related ministries such as MoI, GDCE and GDTax. And the IT system has been connected between MPWT and GDCE since January 2018. He mentioned this inter-ministries cooperation would contribute to the promotion of government's one stop service and the connection would be useful for the effective taxation.
2. Recently, JICA has decided to provide some IT equipment through MVRI project.
3. The Inspection Guideline has been approved as Prakas.

- The actual improvement activities will be shared in the 4th JCC meeting.
- Explain the improvement activities of vehicle registration, inspection and IT system after the 4th JCC.
- Continuous cooperation between MPWT and project team would lead to the improvement proactively and efficiently.

2. Presentation

2.1 Summary of MVRI project progress by Ms. Men Chansokol

- Project Overview:
  - The purpose of the project is to modernize the vehicle registration administrative system, and the core activities consists of three pillars, vehicle registration, inspection, and IT system as the basis to support those system.
  - In order to penetrate the improvement plan to citizens, the PR activities is essential, and also monitoring activities are inevitable to judge if the improved system is smoothly introduced or not.
- Recognition of issues: In order to modernize the vehicle registration administration system, we realized the IT system is essential to improve the current situation and established online registration system. But currently, only 3% of owners use online system to register and we are trying to raise this rate to achieve the expected advantages.
- The progress of the project:
  - We have already approved guidelines of vehicle registration, inspection, and also short-term strategy for IT system such as manuals, security diagnosis, etc.
  - Now we are implementing or preparing for implementation of those plan.
  - In this phase, the PR and Monitoring activities become more important to promote and give the feedback to those plans.
- The training in Japan:
  - The trainings in Japan have been held twice up to now.
  - For the first year, official visit for the management level was held, the second year was for the practical level, and the training for vehicle inspection was held for additional three days.
  - Next training in Japan is planned to be held next January. This time, five people would be attend the training.
- The subject to be approved in the 4th JCC: Training in Japan next January and something raised during the meeting.

2.2 Progress of the IT system activities by Mr. Heang Sotheayuth

- Progress of Short-Term Strategies
  - Schedules
    - Set the interface specifications for information sharing with related ministries by the end of December 2017
    - Conducted the security diagnosis of the application, first diagnosis has been done in Jan 2018 and the second diagnosis has been done within 14th or 15th June 2018
    - Suggested operational rules for online application system by the end of Dec 2017

- Suggested IT infrastructure requirements by the end of Dec 2017
- Support on introducing servers and middleware (procurement) by the end of Apr and Jul 2018

2. The necessity of the capacity building of IT staffs was pointed out for long term project.

➢ Concrete improvement activities:

3. Progress of Short-term Strategies
   - Application: set the interface specification with related ministries and conduct the security diagnosis.
   - IT Infrastructure: suggested IT infrastructure requirements and are introducing servers and middleware
   - Human Resources: introduced operational rules for online application system
4. IT Roadmap
   - Basic concept: Sustainable Vehicle Management Administration
     - The value of the external use would be increased by ensuring accuracy of the information.
     - Some administrative activities would be effective to improve accuracy, such as:
       - Capture of unregistered vehicles
       - Capture of stolen / offending vehicles
       - Collection of road tax / import tax
       - Prevention of illegal dumping
       - Prevention of unauthorized export
   - Main fields of issues: establishment of foundation for sustainable development:
     - Civil Society: Freedom of movement and Ecology/safety
     - Public Sector: Improvement of Efficiency
     - Private Sector: Promotion of Industry
   - Step to the next-generation automobile society
     - Phase 1: 2016 – Construction of Registration Infrastructure
     - Phase 2: 2019 – Utilization of Registration Information
     - Phase 3: 2022 – Adaptation to Technological Innovation of Vehicles and Digitization of Society

➢ Request to JICA

1. The following activities have been done as the short-term improvement for the registration infrastructure, but it would not be enough in the future.
   - Formulation of IT Roadmap
   - Improvement of system infrastructure
   - Improvement of operational rules
2. Request to JICA to consider to provide more support to MPWT as the next phase of the project for Data Center which has been already proposed in order to improve the IT infrastructure and the security of the data because the data mean everything to MPWT.
3. Request for the support to increase the efficiency of the information sharing to all the stakeholders.
4. Request to improve the IT team capacity in order to support the management of vehicle registration and technical inspection.

2.3 Registration by Mr. Chheng Samnang

➢ Concrete improvement activities

- Approved improvement plan in the 3rd JCC
  - Plan 1: Ownership transfer campaign, deleted registration by MPWT staff
    - Promotion of ownership transfer registration, even when registered owner is unknown, and deregistration (Temporary Prakas and PR activities)
  - Plan 2: User information management and loan information management
    - Register loan information
  - Plan 3: Accuracy enhancement of new registration, ownership transfer, and delete registration
    - Register owner name and user information
    - Promotion of efficient online registration by car dealers, ownership transfer and deleted registration
  - Plan4: Information sharing with related ministries
    - Necessary information items and information sharing means
  - Create Guideline and checklist to handle vehicle registration administration accurately and efficiently.
- Related document on vehicle registration GDLT has created
  - Instruction created by GDLT
  - Manual for car dealer of online registration created by Blue technology, and will be arranged by JICA
  - Guideline of all types of registration procedure for GDLT/DPWT staffs created by JICA
    - It will be approved as Prakas as same as the guideline on inspection
- issues on the activities

1. issues regarding IT system:
   - While the database was migrated from old system, some information is missing.
   - The IT system has not been completed yet.
   - Some errors in the system during operation.
   - Some functions, such as tool for registration of electric car need to be developed.
   - The report tools are not enough.
2. Issues regarding the procedure:
   - The instruction on vehicle registration for auto dealers and officials in charge needs to be improved.
   - GDLT takes time to approve the documents submitted by auto dealers.
3. Issues regarding auto dealers
   - Upload wrong documents
   - Filling wrong information of vehicle, including wrong tax code, username and address, etc.
   - There are some errors in printing card.

➢ Request to JICA
- To fix problems regarding the database of automation system
- To design customized reporting forms
- To improve transfer ownership and deletion procedure
- To improve and revise the car dealer manual and promotion leaflet of vehicle registration

2.4 Inspection by Mr. Taing Peou

- Issues before implementing improvement plan of the project:
  - Regulation/rule: Some contradictions in regulation, no written criteria for equipment and inspectors, and some regulations don't necessarily stipulate rules.
  - Management: Information to be managed is not well identified and unwritten/ some rules are not abided by properly/no proper checking system.
  - Knowledge/understanding: DPWT's officer doesn't have right and obligation to manage centers / some inspectors are lacking knowledge and understanding, as well as car owners.
- The progress since the last JCC
  - Approval for the vehicle inspection guideline by the ministry
  - Preparation for the guideline related training (as seen in the following slides)
  - Establishment of the inspection training committee (Prakas No.170 on Establishment of training committee for vehicle inspection.)
- Items to be approved in the 4th JCC
  - Revise of the tentative Schedule for the implementation of the guideline (updated since the last JCC)
- The contents of the upcoming training on the guideline
  - Overall guidelines
  - Visual inspection
  - Equipment maintenance
- Necessary Principles in Inspection
  - Capacity building of staffs
  - Enough Equipment: This is the role of private company to provide inspection services. There is an inspection visit after training.
  - Adequate centers
- Plan after the 4th JCC
  - Training for inspectors
  - Introduction of visual inspection according to the guideline at 2 centers in Phnom Penh
  - Introduction of inspection equipment management according to the guideline at 2 centers in Phnom Penh

2.5 The 1st Q & A Session:

- Question 1: Regarding the 3rd JCC meeting, we have transferred the data from the old system and some data is missing. So how could we make this database accurate and good enough for next year operation?
  - *Answer 1: There is the same case in Japan. Therefore, we will find out how we solve this problem. However, this might be difficult to solve during this project as it might necessary to improve or redesign IT system.*
- Question 2: Regarding to user information management, GDLT is not sure how to prescribe the registration of the loan information in Prakas. So, we would appreciate it if JICA could have documents to support Prakas revision so that the Minister approve the revise the Prakas.
  - *Answer 2: We would look for the regulation or some documents you could refer to.*

2.6 Monitoring the actual achievement (Reference to provided handout)

- The progress of the project is assessed through monitoring activities.

- The monitoring result was reported, and as many of the monitoring ratios are improved comparing to the result in the 3rd JCC, it shows the project going smoothly.

2.7 Public Relation activities

1. PR Activities Implemented after the 3rd JCC Meeting:
   - Press briefing held by the Embassy of Japan and JICA Cambodia. The press briefing was attended by 15 members of the media.
   - Production of video for online vehicle registration application
   - Japan-Cambodia Kizuna festival from February 22-25
2. Full picture of the PR Activities
   - Technical promotion would be supported by each pillars expert.
   - PR activities aims to increase the recognition of Cambodian citizens
     - Public awareness (dissemination of the regulations and rules)
     - Promoting and understanding of procedures for vehicle registration and inspection.
     - Project-related information
   - Two PR events will be held during this project and through the events JICA experts will produce some leaflets and tools for the PR which MPWT utilize those items even after this project.

2.8 2nd Q & A Session:

1. Question 3 from **Mr. Kong Sophal:** Could the project develop the survey platform to complete data after registration and then sent SMS to applicants for thank note? As I think it is only a simple system, we expect JICA could support to implement the survey system to achieve the monitoring efficiently.

   Answer 3: Regarding the evaluation and monitoring system, during the project period I'm trying to make the very simple questionnaire (form 4) and simple monitoring system to conduct the monitoring system periodically in every 6 months at this moment. But for using the monitoring system through IT system as you commented, you need some modification of IT system as well. And at this moment, I am afraid it would be out of the project scope. However I suggest you an alternative idea that some officials can join our monitoring activities next time, then we can instruct them how to manage monitoring. Your officers could learn from me and this is one of the opportunity for us to sharing the knowledge with you.

Comment from H.E Chhuon Voun, Director of GDLT:

- Thank you for Japanese expert for the presentations on monitoring system and PR activities. It's really useful for our management team.
- We are very worrying about what you mentioned during your presentation, because PR is really important to find out the comments from applicants.
- Currently, our ministry including senior minister recognize the importance to notify the importance of the vehicle ID card, as some citizens think it is just a paper and not important.
- And regarding the vehicle registration and inspection as well, we are doing our best to reduce the unofficial expense for owners by eliminating intermediaries who are willing to complete the registration for customer for the purpose to get commission. And we believe that after this meeting, we will get your output of monitoring system to discuss among our management team and settle it as much as possible. Thank you.

Comment from H.E Tauch Chankosal:

- I am interested in the monitoring presentation by Japanese expert, I would like to suggest to our management officers from General Director, Deputy General Director and all related officers of General Department of Land Transport to learn from the result of the monitoring system. And I heard all of you has tried to have meetings and consult with our JICA expert on how to improve the weakness points. As H.E Chhuon Voun mentioned the importance of civil awareness, they don't aware of our registration system and of our inspection system. Therefore, General Department of Land Transport needs to consider how to improve this situation. So, the monitoring system and PR activities are very important for us to improve our registration and licensing to be more modernize and serving the best service for our people.

3. Closing remark and wrap-up

- Closing remarks are made by H.E Tauch Chankosal, Secretary of State of MPWT at the end of the meeting with the gratitude to JICA for chance that MPWT could cooperate to improve this sector.
- He concluded the following 3 points are approved in this meeting.
  1. Training in japan in January
  2. Confirmation of the progress of each improvement activity and approval of the activity plan after this meeting.
  3. Approval for training for vehicle inspection staffs based on approved guideline.

- He also requested the following point to be supported by JICA experts.
  - In the vehicle registration field, we would like to prepare the instruction for user and general public with your application point of you.

Confirmed By:

H.E. TAUCH Chankosal
Secretary of State
Ministry of Public Works and Transport

TANAKA Kotaro
Deputy Chief Representative
JICA Cambodia Office

OTA Masaya
Chief Advisor
JICA/MVRI Project

The 5th JCC Meeting
Project for Modernization of Vehicle Registration and Inspection Administration System
Minutes of Meeting
December 24th, 2018, Cambodiana Hotel

Introduction

The regular semi-annual meeting of the JICA Project for Modernization of Vehicle Registration and Inspection Administration System was called to order at 14:30pm to 17:00pm on 24th December, 2018 in Cambidiana Hotel, The Tunle Chaktomuk Room under the presidency of **H.E Tauch Chankosal**, Secretary of State, Ministry of Public Works and Transport.

Attendance

Ministry of Public Works and Transport

H.E. Tauch Chankosal	Secretary of State
H.E Leng Thun Yuthyea	Under Secretary of State of MPWT
H.E Em Mithara	Under Secretary of State of MPWT
H.E. Chhoun Voun	General Director of General Department of Transport
Mr. Kong Sophal	Deputy Director General of GDLT
Mr. Suon Vanhong	Deputy Director General of GDLT
Mr. Duy Chan Dara	Deputy Director of GDLT
Mr. So Pisey	Deputy Director General of GDLT
Mrs. Men Chansokol	Director of Land Transport Department
Mr. Heang Sotheayuth	Director of IT and PR department
Mr. Chheng Samnang	Deputy Director of Land Transport Department
Mr. Taing Peou	Deputy Director of Land Transport Department
Mr. Leng Raith	Deputy Director of Land Transport Department
Mr. Teas Dararoth	Deputy Director of IT and PR department
Mr. Dy Lada	Deputy Director of Urban Transport Department
Mr. Un Vath	Deputy Chief of Vehicle Inspection Office
Mr. Tam Odom	Chief of Registration Office
Mr. Tim Setha	Chief office, GDLT
Mrs. Chey Linda	Officer of Inspection Office

General Department of Taxation, Ministry of Economy and Finance

Mr. Holl Thirith	Deputy Director of GDTax
Mr. Ban Dy Vitou	Chief Office, GDTax
Ms. Yin Sotheavy	Chief of Burau, GDTax
Ms. Khan Sokunchhorvy	Officer, GDTax

General Department of Customs and Excise, Ministry of Economy and Finance

Mr. Chhuon Chansophea	Chief of IT Department, GDCE
Mr. Mak Visal	Deputy Chief, GDCE
Mr. Por Chanlangdy	Officer, GDCE
Mr. Ung Visal	Officer, GDCE

General Department of Traffic Safety, Ministry of Interior

H.E. Heng Phanith	Deputy Director, MoI

Mr. They Visal	Chief Office, MoI
Mr. Nak Pisey	Officer, MoI

General Department of Identification, Ministry of Interior

H.E Khieng Sokunthea	Director of ID Department

Japan International Cooperation Agency

Mr. Tanaka Kotaro	Senior Representative of JICA Cambodia Office
Mr. Iwase Hideaki	Project Formulation Advisor of JICA Cambodia Office
Mr. Ouk Raksmey	Program Officer, JICA Cambodia Office

JICA MVRI Project Team

Mr. Ota Masaya	JICA Project Chief Advisor
Ms. Nakamura Nori	JICA Project Coordinator
Ms. Terashima Tomomi	Operating Manager NTT DATA
Mr. Takagi Akira	JICA Short Term Expert
Mr. Makoto Sato	JICA Short Term Expert
Mr. Toshimasa Kawasaki	JICA Expert, MPWT
Ms. Oeng Sodavy	Project Assistant
Ms. Pich Kimthea	Project Assistant

Minute Takers

Ms. Sodavy Oeng	Project Assistant, JICA/MVRI

Observers

Ms. Sak Kimheng	Aid Coordination Officer, CRDB/CDC

Media Agencies

Mr. Sean Lavy	IT&PR Dept. MPWT
Mr. Bun Chan Piseth	Sea TV
Mr. Nget Ngean	PNN TV
Mr. Eng Buchheng	DAP News
Mr. Chan Phakdey	TV5
Mr. Keo Sokheng	TV5
Mr. Lmut Samka	TVK
Mr. Hak Sopheoun	TVK
Mr. Eoun Pheara	PNN TV
Mr. Eom Phirak Noryrattanak	RNK
Mr. Eng Samneang	Swift News

AGENDA

1. Opening remarks
   1.1 H.E. Tauch Chankosal, Secretary of State
   1.2 Mr. Tanaka Kotaro, Senior Representative of JICA Cambodia Office
2. Presentations
   2.1 Summary of MVRI project progress
   2.2 IT System: Presentation on concrete improvement activities and report of progress of activity plan.
   2.3 Registration: Presentation on concrete improvement activities and report of progress of activity plan.
   2.4 Inspection: Presentation on concrete improvement activities and report of progress of activity plan.

2.5 Monitoring: Presentation on the Report of actual achievement
2.6 Public Relation: Presentation on PR activities
2.7 Explanation of Training in Japan

3. Q&A Session (1&2)
4. Media interview to H.E Tauch Chankosal, Secretary of State of MPWT
5. Closing Remarks and wrap-up by H.E. Tauch Chankosal, Secretary of State of Ministry of Public Works and Transport

Points to be approved in the meeting:

- IT System: The best practice for IT solution shared by Japanese Experts.
- Registration: The equipment to improve registration system
- Inspection:
  - 2nd and 3rd Inspection guideline training on Nov 01st-03rd 2018 and Dec 08-09, 2018 at GDLT
- Training in Japan in January 2019
- Monitoring:
  - Monitoring result
  - Regarding each report
- Public Relation:
  - PR activity results on 17th – 19th Dec, 2018
  - PR activity plan and the extension of the PR activities not only in Phnom Penh, but also at the other provinces

I. Opening Remarks

1.1 First opening remarks have stated by chair of the meeting **H.E Tauch Chankosal**, Secretary of State, MPWT as follows:

- The importance for the safety and environmental consideration in transport sector
- The importance of a proper management and effective use of vehicle registration information
- Implemented activities on the improvement of vehicle registration and inspection system in cooperation with JICA technical assistance MVRI.
- Confirm and approval on the progress of the improvement activities in the three fields of vehicle registration, inspection and IT system in the MVRI project
- The actively engaged in the improvement activities to achieve the goal up to the final stage.
- To conduct the report of the implementation status and the achievement of the improvement activities of the three fields
- To consent the approaching policy in the future with participants.

1.2 Second opening remarks have stated by **Mr. Tanaka Kotaro**, Senior Representative of JICA Cambodia Office as follows:

- The important to discussing on various issues to reflect what have been achieved over the past two years and direction
- To pursue to achieve our project's goals and objectives.
- As MPWT is promoting improvement activities of the IT system for vehicle registration and inspection under the direction of Senior Minister H.E. Sun Chanthol. Further information sharing system with related ministries has been started since January 2018.
- JICA provided some parts of the IT equipment for enhancing the capacity of the IT system through MVRI project.
- Related information on the installation of the equipment has been completed and its operation has been started.
- Requested to MPWT to make more effective use of the equipment provided by MVRI project to strengthen vehicle registration and inspection system.

- MVRI project is implementing the improvement activities related to vehicle registration and inspection through trainings for the concerned staffs. In order to build a sustainable system, it is extremely important to simultaneously improve not only the IT system but also the vehicle registration and inspection policy.
- Requested to MPWT to actively engage in public relation activities so that the importance of vehicle registration and inspection is enlightened Cambodian citizens widely.
- The main objective of the 5th JCC meeting is to identify progress of the Project, discuss activity plans, and concrete improvement activities.
- To clarify and share the goals to be achieved through the Project by reviewing on the activities, achievements and challenges so far.
- To encourage our counterparts to give the frank opinions if Japanese team needs to make further efforts

2. Presentation

2.1 Summary of MVRI project progress by Mrs. Men Chansokol

- Current status of the project:
  1. The project is in the implementation phase after Dec 2017. Therefore, MPWT is preparing some Prakas and other initiatives to implement the approved guidelines, and holds PR events to enhance the awareness.
  2. The figure out solutions and implementing. It is necessary to identify the issues to be solved by preparing the guidelines and checklist with short-term strategies and roadmap. Moreover, project has also considered an effective PR activities and medias by created the promotion tools and hold the PR activities. The monitoring has been also conducting during the project implementation by setting up the monitoring indicators and baseline by collect monitoring indicators to assess the project effect.
- Progress in IT:
  1. It's almost finished of the introduction servers and middleware and preparing for the NW diagnosis.
     - Mid-term plan/roadmap: the concept is the way to use and future vision for Desirable IT system. It has been approved.
     - Short-term IT strategy: submitted the set of interface specifications of external organ. Second security diagnosis for App has been accomplished from Jan to Feb in 2018 and for network is still under adjusting the schedule.
     - Suggested on the IT infrastructure requirements
     - Support on introducing servers and middleware has been completed in Sep 2018.
     - Suggest the operational rules for online application system which is approved in JCC of Dec 2017.
- Vehicle registration:
  1. To implement the guideline, new related Prakas and holding several seminars are need to be prepared and conducted by MPWT.
  2. Improvement plan:
     - Consider on the ownership transfer campaign by modifying the Prakas/PR activities which is ongoing.
     - Delete registration is still under considering
     - Ongoing on the user and loan info management is under modifying the Prakas (add user info provision including purpose of adequate measures for car loan).
     - Conducted some registration seminars in order to make the registration information accurate.
  3. Guideline: Create a guideline and checklist for vehicle registration which has approved in JCC on Dec 2017 with the following progress:
     - Modifying the Prakas and get signing is ongoing

- Conducted seminars in Siem Reap on Sep 2018
- Revising on the guideline based on the new Prakas is necessary to be done.

➢ Vehicle inspection:

1. To implement the guideline, MPWT is preparing the new Prakas and has been held several seminars and started pilot the project.
2. The introduction of other countries' case has been done in JCC on Dec 2017 by introduction on related initiatives in other countries (incentive, compulsory third-party insurance, maintenance system).
3. Guideline: created the guideline and checklist for vehicle inspection included the requirement of inspection centers, inspectors, inspection equipment, and visual inspection.
   - The progress activities have been approved in JCC of Dec 2017 by modifying the Prakas and have been conducted 3 times seminars related to the inspection.
   - Piloting the project from Dec 2018 and will revise the guideline based on the new Prakas if necessary.

2.2 Progress Report on IT system by Mr. Heang Sotheavuth

➢ Overall Schedules

1. Progress of Short-Term Strategies
   - Completed the development of interface specifications for information sharing with external administrative organizations
   - Completed the security diagnosis for application, first diagnosis has been done in Jan 2018 and the second diagnosis is done within 14th or 15th June 2018
   - Security diagnosis on platform is in progress within the 1st Feb to 3rd Feb 2019.
   - Suggestion on development on operational rules for online application system has been done at the end of Dec 2017
   - Development on IT infrastructure requirements has been done at the end of Dec 2017
   - Reinforcement of IT infrastructure has been completed within Dec 2017 to June 2018
2. Progress of Long-Term Strategies
   - Development of IT roadmap is under finalizing by the end of the project
   - Basic concept of IT roadmap and main field of issues
   - Step on the next generation automobile society
   - Empower MPWT, the IT Roadmap 2019
     - ✓ Basic concept: Sustainable Vehicle Management Administration
     - ✓ Priority subject: Construct Foundation for Sustainable Development
       - Interface specifications for information sharing with relevant organizations
       - Security Diagnosis
       - Operational rules for online application system
       - IT infrastructure requirement
       - Additional servers and middleware
     - ✓ Realization of stable and efficient IT infrastructure
     - ✓ Improve efficiency of public administration
     - ✓ Promote industries
     - ✓ Ecology and safety
     - ✓ Fiscal consolidation and freedom of movement
3. Specific Improvement Plan
   - ✓ Tasks to be addressed by setting the priority subject to achieve the goals
   - ✓ Administrative acts such as
     - Improvement of administrative system of vehicle registration
     - Improvement of IT system infrastructure

- Introduction of container type data center
- Support for maintenance and operational rules
- Build a business function for administrative collaboration
- Build a business function for information retrieval
- Build a business function for information provision
- Build a business function for information disclosure
- Ensuring profit by information provision

- Prospective of IT System
- System Function: The Sub-Systems of business function are: Administrative collaboration system, Application reception system, and Information management system.

2.3 Registration by Mr. Chheng Samnang

➢ Improvement status regarding Vehicle Registration Administrative System

1. Reconfirmation of MVRI direction
   - Improve the legal basic such as Prakas to modernization the vehicle registration by expected advantage in the future for the accurate vehicle information management with efficient operation on vehicle safety keeping and increasing of revenue
   - JICA MVRI project has the purpose and the indicators by extracted from MVRI project PDM
   - The improvement measures which were approved in the 3rd JCC meeting
2. Current topics on vehicle registration related to Prakas and the other relevant legal basis
   - Statistic report of vehicle registration and inspection
   - GDLT revised the Prakas No.046 on the basis of previous JICA's proposal
   - The revised/added contents are
     - ✓ Vehicle user information will be managed newly in addition to owner information.
       - Vehicle user themselves cannot do ownership transfer application.
       - This is related to auto loan case
     - ✓ Vehicle registration certificate will be revised.
     - ✓ Procedure to take over the same number plate from previous vehicle to new purchased vehicle
   - Moreover, other joint declaration between ministry of economic and finance and ministry of public works and transport on ownership transfer is under drafting
3. Vehicle Registration Operation Guideline
   - After completion of Prakas No.46, Vehicle Registration Operation Guideline should be revised if necessary.
     - ✓ JICA thinks that this guideline should be approved by MPWT as an official document.
   - Then GDLT can publish and distribute to organization concerned in the whole country.
     - ✓ DPWT registration staffs are expected to make their operation more effective, productive and accurate.
     - ✓ As the result, vehicle management capacity enhances in the whole country.
   - This guideline should be revised continuously for the future
4. Guideline Seminar for DPWT staffs
   - GDLT carried out the training seminar on Vehicle Registration Operation Guideline, cooperated with JICA in September 13th 2018 at Siem Reap province and there were around 50 participants had joined including GDLT and JICA MVRI project team.
   - Many DPWT staffs show their opinions actively. Examples are below;
     - ✓ Thanks to online system, it's easy for citizens to apply to registration and task burden on officers decreased.

- ✓ There are still cases that ownership transfer is impossible because the first owner cannot be found.
- ✓ Delete registration is necessary against unused vehicle for safety and accurate statistics. Problem is citizens don't know the procedure.

- After this event, many DPWT have requested GDLT to hold the same seminar in other provinces

5. Others
   - GDLT held promoting events on the awareness of vehicle registration to the students at;
     - ✓ Siem Reap
     - ✓ Banteay Meanchey
     - ✓ Battambang
     - ✓ Sihanoukville
     - ✓ Kompot
     - ✓ Takeo
     - ✓ Phnom Penh
       - AEON mall 01
       - AEON mall 02
   - GDLT will continue promoting events to citizens
6. Issues to be improve
   - Finding the effective way to increase the number of delete registration. This will lead to accurate vehicle information management more
   - To enhance the understanding of each registration procedure and follow new technology (Online application, etc.) more and more by the concerned persons. These will lead to secure and accurate registration operation. Targeted to officers, car dealer, and citizens.
   - Pattern of reporting forms (statistic reporting forms) for analyzing data is lacked. Other ministries and car dealer sometimes request below;
     - ✓ By fuel consumption (Ex. Gasoline, diesel, petroleum, hybrid)
     - ✓ By vehicle type including EV vehicles, hybrid vehicles
     - ✓ By vehicle model and production year
   - Sharing the necessary information with other ministries concerned should be proceeded
7. Next plan and action
   - Schedule regarding MVRI project
   - Next plan and action
     - ✓ Based on the project schedule, GDLT will continue to improve vehicle registration more.
     - ✓ To solve issues left, we do our best by receiving JICA's support.

2.4 Inspection by Mr. Taing Peou

➢ The changes of the plan after the last JCC

1. Suppose to have the inspection guidelines training course and start the pilot project after the training. However, the plan has modified as below:
   - Conduct training courses necessary for covering all the inspectors of CMVIC and HK
   - Start piloting project in two inspection centers in Phnom Penh after finished all the training courses.

➢ Progress since the last JCC

- Proceed the proper introduction of the guidelines
  - ✓ Conducted 3 times of guideline training in June, November, and December of 2018
  - ✓ Start piloting project of the guideline from 11th December 2018.
- Outline of the training on the inspection guidelines in the purpose to understand the overall contents of the guidelines and gain some practical skills on visual inspection.

- Outline of the training on the maintenance of the equipment in the purpose to understand the concept of the equipment management and gain some practical skills on the equipment maintenance.
- The monitoring on the improvement in the guidelines and training for inspectors through the piloting project at two inspection centers was being conducted.

➢ Tentative schedule after this 5th JCC
- Has completed the training on manual inspection and equipment maintenance
- Piloting project is planned to be done by 10th Feb, 2019 and reporting the results to MPWT.

2.5 Monitoring the actual achievement by Ms. Terashima Tomomi

➢ Monitoring System
- To confirm the progresses of the outputs and Project purpose.
  - ✓ Components of PDM (narrative summary, indicators, means of verification);
  - ✓ Monitoring method (persons/organizations in charge, frequency, remarks);
  - ✓ Target value (baseline value, final target value); and
  - ✓ Achievements of each financial year (FY 2017, 2018, and 2019).

➢ Project Purpose
- Achievement of the project purpose
  - ✓ Indicator 1: Numbers of vehicle registration procedure (vehicles registered, disused, and transferred) and vehicle inspection implemented per annum
- Achievement of the output 1
  - ✓ Indicator 1: Approval of the Guideline for vehicle registration by MPWT
  - ✓ Indicator 2: Implementation of the vehicle registration along the checklist of vehicle registration procedure
- Achievement of the output 2
  - ✓ Indicator 1: Approval of the Guideline of GDLT for vehicle inspection by MPWT
  - ✓ Indicator 2: Implementation of the vehicle inspection along the checklist of vehicle inspection (Form 4)
- Achievement of the output 3
  - ✓ Indicator 1: Implementation of the recommendations for improvement described in the IT short-term strategy
  - ✓ Indicator 2: Number of PR activities implemented by MPWT staff
- Progress of the Overall Goal
  - ✓ Indicator 1: Effective utilization of the information and data of vehicle registration according to the checklist on the information use of vehicle registration
  - ✓ Indicator 2: Number of vehicle inspection centers fulfilling the certification criteria of MPWT
  - ✓ Indicator 3: Percentage of the vehicle inspection implemented to the vehicles necessary for the inspection per annum
- Important Assumptions for the Project Purpose
  - ✓ MPWT staff capacitated by the Project continues working for their respective positions.
- Modification of the PDM
  - ✓ In order to practically and effectively utilize the PDM, the target value of an indicator was modified

2.6 Public Relation activities by Mr. Sato Makoto

1. Activities Impletation after the 4th JCC Meeting

- Production of video on vehicle inspection
  - ✓ A video was produced in collaboration with the IT/PR Department of MPWT with duration 5 minutes and 3 seconds
  - ✓ The video was published on the project's Facebook page.
- Vehicle registration and inspection promotion events for university students in provines
- Production of the leaflets in Khmer and English Versions
  - ✓ Leaflet for vehicle registration
  - ✓ Leaflet for vehicle inspection
  - ✓ Leaflet for general information (Contact information, location of DPWT offices and inspection centers to introduce the importance of vehicle registration, vehicle inspection, and IT system, etc.)
- Awareness-raising event on vehicle registration and inspection at Aeon Malls
  - ✓ 1st PR event was conducted at Aeon Mall 2 Sen Sok City in 7 days period from 1st to 7th October 2018
  - ✓ 2nd PR event was conducted at Aoen Mall 1 in 3 days period from 17th to 19th December 2018
- The purpose of the PR event is to disseminate the correct information and knowledge on vehicle registration and inspection to the publicans and to rest the awareness of Cambodian citizens on vehicle registration and inspection.
- The main programs were included:
  - ✓ Delivered the presentation on automation system, vehicle registration and inspection demonstrated by GDLT officials
  - ✓ Provided the free consultation service
  - ✓ Displayed videos related to the automation system
  - ✓ Public dialogue between the GDLT official Mr. Suon Vanhong and Ms. Aok Sokunkanha (in 1st event only).
- Questionnaire results of awareness by the people
  - ✓ 72% of registration
  - ✓ 62% of transfer registration
  - ✓ 25% of deregistration
- Summary of the questionnaire results
  - ✓ A lot of people owners don't know well on how to complete a registration procedure
  - ✓ People don't know well about the registration offices for each type of registration and difficult for them to prepare the required documents for the ownership transfer registration
  - ✓ Deregistration is not well recognized.
- Some PR tools had been distributed to DPWT (Koh Kong) and Tela Mart (43 different locations) such as X-Stand and leaflets.

2. Envisioned PR Activities
   - Distribution of the PR tools to auto dealer shops and other DPWT offices.
   - Production of awareness-raising short videos on vehicle registration and inspection in 30 to 60 seconds duration
   - Holding a PR event (Continue)
   - Dissemination of information through medias (SNS, TV, internet newspaper, etc.).

2.7 Explanation of the Training in Japan 2019

- Confirmed the participants who will visit Japan to learn Japanese vehicle registration and inspection administration system in January 2019 are 7 peoples
- Confirmed the schedule of the training

3. Media Interview

H.E: Project JICA MVRI has 3 pillars are inclusive with vehicle registration, vehicle inspection and IT system.

1. *As you might know that, currently we register the vehicle through online system, so that IT system is really important in order to contribute the easiness and faster service to the people. At the same time, MPWT has created a supporting center which is providing a free consultation on the public service providing to the people and also the people can make a phone call for any questions through our hotlines number. As the result, the calling reception is decreasing due to the people is more understanding about our service procedure through our facilitation effort. Since we are trying to develop the system and receiving the technical cooperation support from JICA, our system is much improved.*
2. *Regarding inspection system, MPWT has provided more opportunity to the private sector for the competition on the vehicle technical inspection. Up to now, there are 3 companies who authorized the vehicle inspection service and we do hope that, there will be more candidates in the future.*

   To provide the registration service through online system is also aiming to reduce to the minimum of the unofficial payment for the people caused by the fraudulent person who wish to get the additional fee from the customer.
3. *IT system: as the vehicle registration and inspection procedure is also related to the relevant ministries such as GDCE, GDTax, and General Department of Identification of MoI also related. We have to share the vehicle information by doing the system connection with the concerned ministries. Currently, MPWT system has successfully connected with GDDC for sharing the involved important information and data such as imported tax etc. Moreover, our MPWT IT & PR Department are cooperating with General Department of Land Transport by getting support from JICA project to reinforce and implement the improvement activities plan effectively and we will try our best to work on it. So, the meeting today is focusing on this 3 fields and we are going to observe and monitor of those activity plans results and what the issue to be solved? Since the project will be finish on July 2019, thus we have to review on each concerned matter to improve and to find the solution within the period of the project.*

Media: since the 2 years starting of this project, could you please let us know whether how many of the vehicles were being registered and inspected?

H.E: Regarding the statistic of vehicle registration and vehicle inspection is sharing by GDLT, and I'm not holding the documents along by now but you can request for the statistic from GDLT.

4. Q&A Session

1. **Session I**

- Question and Comments:
  - **Mr. Akira Takagi:**
    - The vehicle technical inspection training has been done for 3 times already to all the inspection staffs of CMVIC and HK company.
    - The observation of the 3rd training course is improved comparing to the first training such as the improvement of the training course materials, the improvement skill of the training participants. The improvement was made by their own hard working.

- **H.E Leng Thunyuthyea:**
  - Thankful to all the presentation with the interesting captured to the discussion in the meeting.
  - 2 words really impressing are environmentally sustainable transport and the smart city.
  - With these 2 important natures, through the presentation; the project would product the circle guideline for the technical inspection to be more specific.
  - The last presentation which demonstrated by Mr. Taing Peou, there are various step of the training activities.
  - Regarding the last slide related to the standard and requirement of vehicle inspection center, equipment, and inspector. Why this one also included the calibration? Because calibration is one of the tools that you can measure the accuracy of the technical inspection equipment. I'm not sure that why the trainees and the training activities had also discussed about the calibration?
- **Mr. Taing Peou:** At the moment, we conduct the training by the supporting from JICA project and by our side. So that the contents of the training we cannot conduct the subject related to the calibration because we need the deep and detail explanation of the technical in the training. I hope that, JICA project could support us more to conduct the technical training for next time related to this mentioned.
- **H.E Leng Thunyuthyea:** This is what I want to hear from GDLT side. Therefore, I would like to propose to Mr. Tanaka, senior representative of JICA Cambodia office to consider for providing the other specific technical training which focus on the calibration up to the end of project, because as I mentioned earlier that Calibration is one of the important tools. Considering to the fact, it's not only to address the safety of the vehicle, but also to improve the circle of environment and transport.
- **Mr. Taing Peou:** to respond to H.E comments, I would like to report related to the information of calibration. Actually, we have already included the calibration on the technical inspection on the guideline, but during the training we could not conduct because we need much higher technical knowledge related to this.
- **Mr. Ota:** Regarding the nationwide pilot schedule of the technical inspection guideline. Could you shorten the pilot schedule? Because of as might know that our project will be finished on next July. It means that, we have no much time to promote improvement activities faster.
- **Mr. Taing Peou:** Relating to the monitoring program, after the 3 months of piloting the guideline which will be on Feb, 2019, to sustain the program we need to hold the monitoring activity. In our schedule, the monitoring is planned to hold by the project team and GDLT officials up to the end of the project on July 2019. Then, we should consider finding the way to sustain the project continuously related to the visual inspection.

2. Session II

- Question and Comments:
  - **Mr. Ota:** Regarding the imported tax of the vehicle, I heard from some newspaper that the vehicle imported tax will be changed from the next January 2019, is it correct information? If it's correct, I would like to know the detail of the changed comparing to the previous one.
  - **Mr. Men Chansophea (GDCE):** Actually, the Royal Government and GDCE have no any policy to increase the vehicle imported tax. The press released related to the tariff table of the import-

ed tax posted by some journalist on the newspaper or social medias is not the real information and I think that there would be have some misunderstanding. The new regulation or circulation related to the vehicle imported tax will be released soon, so that the media network will be known more clearly by then.

- **Mr. Kong Sophal:** Related to the database, GDLT currently is trying to utilize the database and we're trying to reuse the data that we want to have, but it's very difficult to quarry the data. I'm not sure that we can include this matter to this project of MVRI or to the future. My own suggestion is pleased including another activity to improve our database management system, so that we might be able to reuse the data whatever we want. For instant, know we are trying to get the data such as how many motorbikes below 50cc or many above 50cc we cannot do that. The data we have nowadays is getting from the migration from the old system which is not insufficient, thus if we could improve our system from now on, might be in next year we can reuse the data whatever we want.
- **Mr. Sotheayuth:** It's the right thing that we want to improve on how to quarry the data as what I have said that about our activity, we talk about turning the data into information. We have data but it's difficult to turn it to the useful information and there are 2 things that we are concerning currently are:
  1. The system is quite new and we need to try to product more report and we have some basic report but not responsive to what GDLT needs on how many under 50cc and how many above 50cc of motorbike. Actually, on the database we also have another problem about the data migration. We have the old data migrated into the new system which the old data is a lot and the new data is just from the 30th January 2017 until now if we compare to the old data is quite small number. Data that we have from January 2017 until now, we have cc, etc... but for the old data is not sure and the migration caused the closing of the data. So, it's a big concerned when we talk about how can we know or how many percent of below or above 125cc of motorbike. We also discuss about this with the taxation in the meeting as well that we need more indicator of the vehicle in order to generate the policy data. Moreover, current system when we built, we just can take the minimum data which is the require data that need to display on the card. But we have the other information like the origin country but in our registration it's not mandates. We also need to capture how many doors and the other thing related to capacity and also how many wheels.
  2. If the JICA can help to improve all this concerning. Before we develop the system, we have to set the constrain on what is the priority in order to improve and have to balance 2 things: one is what we want and another one we have to think about the how easy and difficult of the registration user when we put lots it's caused with difficulty and when we put less, we cannot generate the statistical data.
- **Mr. Tanaka:** I know that you need the data more accurate and more detailed data. So, let's collect the data from now on based on your regulation or requirement. But for that specific issue for data collection, what way do you need from JICA assistant? You need for the system or some kind of technical support is needed for data collection? Could you please explain me a little bit more?
- **Mr. Kong Sophal:** for kind of support are: if the expert of the project can share the best practice from Japan, it would be great for us or if you can bring some example from the other country what is the format of data, they're collected in term of vehicle registration which it would be grateful to us. We can do it by ourselves maybe such as in the past, we could collect the data, but it's not sufficient, so it's very difficult to amend the data so we would like the correct form that can utilize for the road design or traffic design as well would be appreciated.
- **Mr. Tanaka:** it's a kind of trade off if you want more detailed data, then the depose of challenging will be more to fill the format. Maybe from Japanese experiences we can share to such of the

next step but to what extend you want to have or you want to collect, that's totally up to your decision making.

- **Ms. Terashima:** We can share the Japanese case and from some other countries. But actually, it would be defficult to modify the data but of course we can introduce some cases.
- **Mr. Kong Sophal:** Sorry, I don't have intention to modify the data in the past, because we have done it already. But we would like to correct our way like from next year and we can do on the right correction. Therefore, what I mean is we don't want to correct what we have done in the past.
- **Mr. Tanaka:** for that I think we can share for what we have done from our experiences, but I think that important point here is more information is more useful for ministry for your future decision making or policy making. On the other hand, for customer or user more detail information is a kind of tradeoff between simple thing and complicated thing within administration and the people. So, based on this country context, social context or culture context, we have to find out the optimal point up to what information you want.

Recommendation from H.E Tauch Chankosal:

1. *The observation on the presentation mainly on the questionnaire result. Based on questionnaire result on the PR activities, I think that we need to do more to let the people know more on how to do the vehicle registration as well as vehicle technical inspection. It's very important because if the people knowledge is still low, we are also difficult to implement our improvement plan. The reason why? Up to now, we observed that the vehicle registration on site much more than online registration, because maybe the people don't understand the procedure of how to do through online system. I am surprised to see the result of the questionnaire survey through the presentation. Mostly, the people say that they have no trust to the inspection center, they have spent but they can't do it by themselves and they got no trust. Some of the people they don't know how to use online registration. I would like to strongly suggest to GDLT that, further PR event need to do more in the future not only in Phnom Penh but also at the other provinces or you can provide some training to the provincial DPWT officers on how to conduct the PR activities, then they can do it by themselves to outreach the online registration to the people over there. I think that the knowledge level of the people on the IT is still low, for the young generation it is ok, but for the old generation it is a little harder to understand about the technology.*

2. *I have recommended, GDLT officials, IT department official, and JICA project team itself have to discuss about this and maybe make the recommendation to JICA and after that JICA can make the decision on how to go.*

Recommend from H.E Chhuon Voun, Director of GDLT:

As mentioned by the chief representative that the project is going to finish on July 2019, thus, I would like to request to H.E Chair of the meeting to propose to the representative of JICA for considering the phase 2 project. Regarding the vehicle reregistration, I would like to report that, nowadays we are working closely with General Department of Taxation to draft an announcement as well as the prakas related to the deregistration. We hope that after the prokas has released, we will get a good result to improve the deregistration procedure.

Recommend from Mr. Tanaka Kotaro, Senior Representative of JICA Cambodia Office:

Regarding the registration, inspection and the people awareness, as H.E has just mentioned, we need to generate and improve the people's awareness on the vehicle registration and inspection as needed. And one more thing that is difficult and needed is about the awareness of the characteristic for the vehicle registration and inspection, if the registration could not be properly done, what would be happened and what

kind of penalty of the people might be able to faced and if they do it in a proper way, what will be the benefit for them. So, we need to consider about that. Of course, I understand that you need the massive coordination with related ministries otherwise it's still difficult to solve.

3. Closing remark and wrap-up

Based on the closing remarks by H.E Tauch Chankosal, Secretary of State of MPWT at the end of the meeting with thank to Japan government for chance of MPWT could cooperate to improve this sector, some proposed activities have been wrapped-up as below:

The points to be approved in the meeting are concluded:

1. Approved on each activity and sharing information with related ministries to continue accelerating not only IT system, but also vehicle registration and inspection are also particularly important
2. The implementation of capacity building through the staffs training have been smoothly achieved regarding the vehicle registration and inspection
3. Accelerate on the cooperation between MPWT and JICA MVRI to accomplish the improvement of the transport sector
4. Approve on the PR activities results and PR activities plan
5. The component of the project counterpart training in Japan of the year 2019V...

Confirmed By:

H.E. TAUCH Chankosal
Secretary of State
Ministry of Public Works and Transport

TANAKA Kotaro
Senior Representative
JICA Cambodia Office

OTA Masaya
Chief Advisor
JICA/MVRI