

Bus Service Quality Indices

Date: 2 April, 2013, Tuesday, 2:00pm

Place: VCSBE Meeting Room

Agenda

1. Presentation of Bus Service Quality
Mr. KUNIMASA Yoshiro
2. Discussion

Participants:

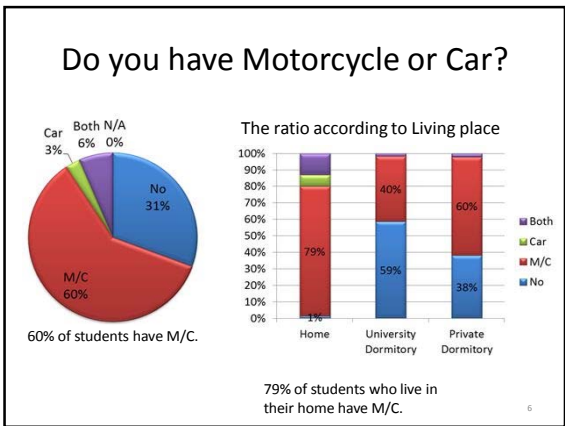
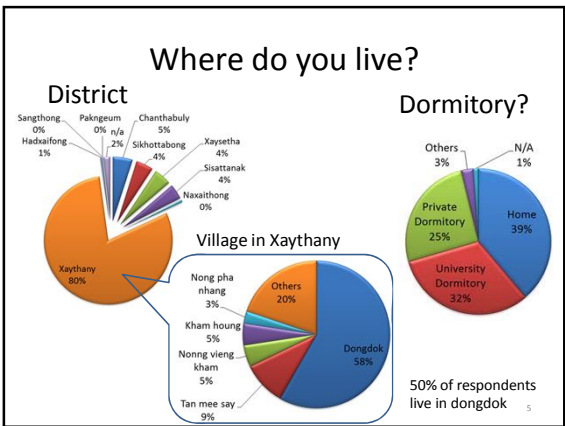
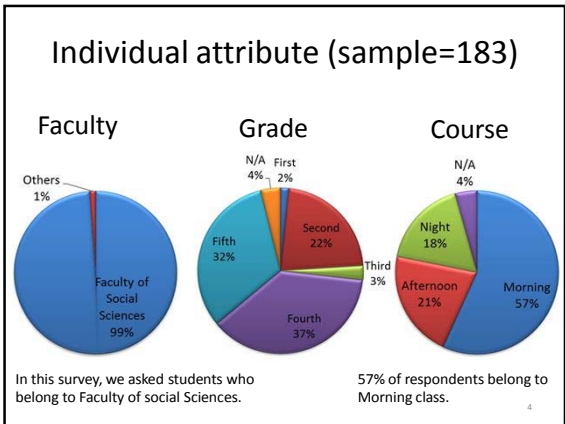
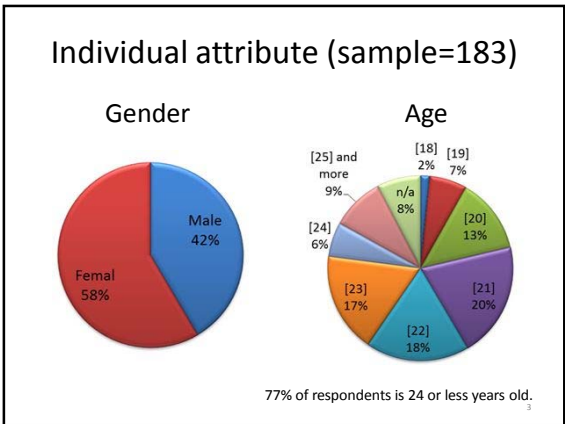
VCSBE	Mr.Khamphoune TEMERATH,Director of VCSBE Mr. Bounpone FONGMANY, Deputy Director of Technical Affaires Mr. Vanly CHANCHALERN, Deputy Director of Administrative Affaires Mr. Bouapha PHETVISAY, Deputy Director of Planning division
DPWT/VC	Mr.Khamphay SOUVADDY
DoT/MPWT	Absent
JICA Project Team	Mr. KUNIMASA Yoshiro, Vice Team Leader/ Bus Service/ Human Resource Development 2 Mr. SHIMEGI Natsuki, Corporate Management/ Accounting Mr. MURAKAMI Tadaaki, Bus Route and Operation Ms. Pathana INTHALANGSY, Interpreter Ms.Phayakala CHANDENG, Secretary Mr. Chanthala VORRASING, Engineer

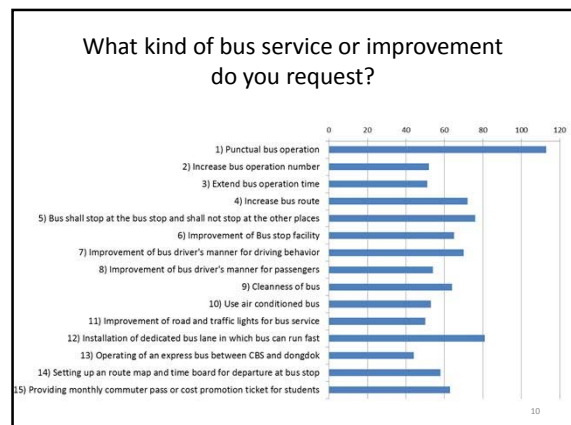
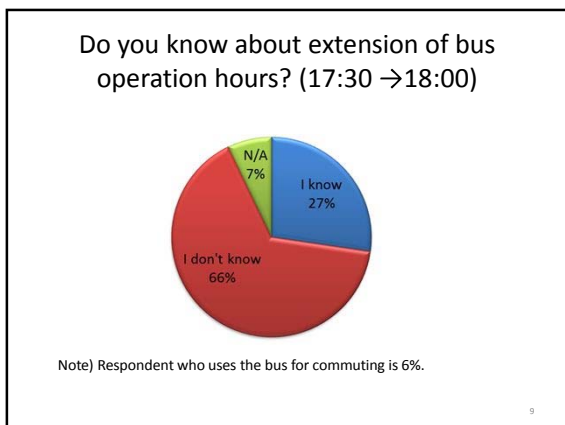
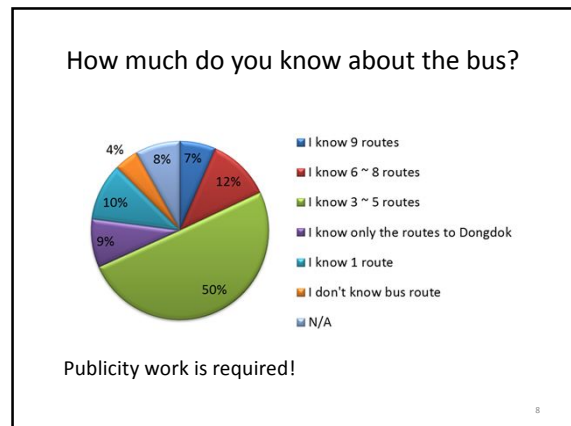
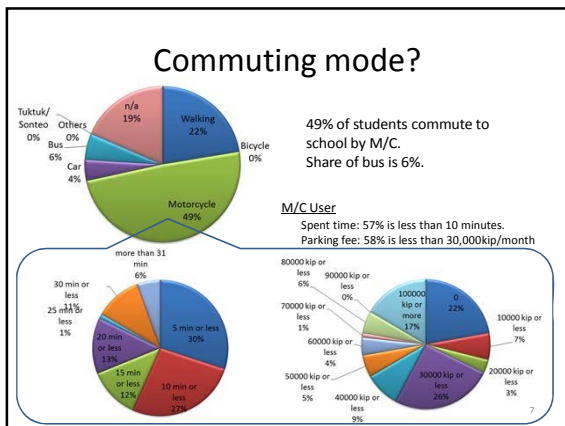
Result of bus needs survey

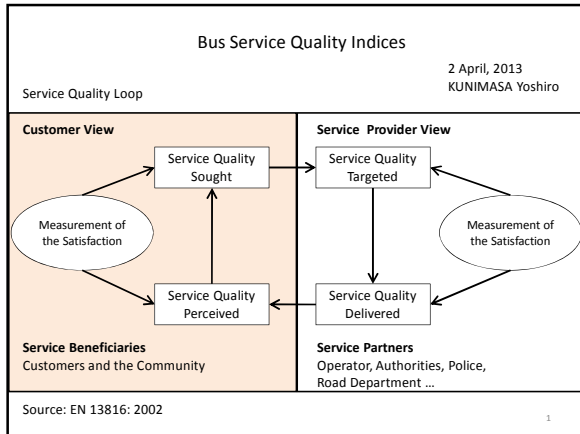
Investigated in the conference held on 9th March 2013 in NUOL Dongdok campus

Advance announcement

2nd April, 2013
JICA PEC-VCSBE







Bus Service Quality Indices : Sample 1

Items	Descriptions
1) Availability	extent of the service offered in terms of geography, time, frequency and transport mode
2) Accessibility	access to the Public Passenger Transport (PPT) system including interface with other transport modes
3) Information	systematic provision of knowledge about a PPT system to assist the planning and execution of journeys
4) Time	aspects of time relevant to the planning and execution of journeys
5) Customer care	service elements introduced to effect the closest practicable match between the standard service and the requirements of any individual customer
6) Comfort	service elements introduced for the purpose of making PPT journeys relaxing and leisureable
7) Security	sense of personal protection experienced by customers, derived from the actual measures implemented and from activity designed to ensure that customers are aware of those measures
8) Environmental Impact	effect on the environment resulting from the provision of a PPT service

Source) BS EN 13816:2002 2

Bus Service Quality Indices : Sample 2

Point of view	Category	Performance Measure Examples
Vehicle/ Driver	Travel Time	<ul style="list-style-type: none"> Transit-auto travel time Delay Transfer time System speed
	Availability	<ul style="list-style-type: none"> Service coverage Frequency Service denials Hours of service
Passenger	Service Delivery	<ul style="list-style-type: none"> Reliability Passenger environment Comfort Customer satisfaction
	Safety & Security	<ul style="list-style-type: none"> Vehicle accident rate Crime rate Passenger accident rate % vehicles with safety devices
Agency	Maintenance & Construction	<ul style="list-style-type: none"> Road calls Spare ratio Fleet cleaning Construction impact Ridership Cost efficiency Fleet maintenance performance Cost effectiveness
	Economic	<ul style="list-style-type: none"> Community economic impact Environmental impact Transit Impact Mobility Employment impact Volume-to-capacity ratio Roadway capacity
Vehicle/ Driver	Capacity	<ul style="list-style-type: none"> Volume-to-capacity ratio Roadway capacity
Passenger	Travel Time	

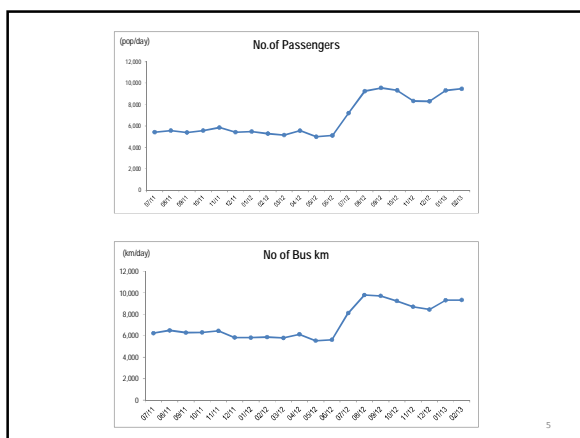
Source) TCRP Report 100 Transit Capacity and Quality of Service Manual, 2nd Edition, 2003 3

Operation Records of VCSBE

- Number of Bus Vehicles which dedicated to each route
- Monthly days of operation for each route
- Monthly round trip number of bus for each route
- Monthly Number of passengers for each route calculated by revenue
- Monthly revenue for each route

No.	Route name	No of Day off	Distance (km)	No of Trip	Total Passenger	No of Volume	Revenue	Price per person
1	Phnom Penh - Siem Reap	18	224	20	1064	50,440	1,071,120	267,930,000
2	Phnom Penh - Kampong Speu	6	24	25	530	42,384	25,612	625,300
3	Phnom Penh - Kampong Chhnang	2	21	15	247	1,462	1,172	107,800
4	Phnom Penh - Kampong Chhnang	6	24	12	312	15,172	21,342	277,444
5	Phnom Penh - Kampong Chhnang	2	20	14	517	23,928	31,342	68,164,000
6	Phnom Penh - Kampong Chhnang	3	3	3	36	2,502	1,261	114,839
7								
8								
9								
10								
11								
12								
Total passenger		34	122	129	132,664	135,751	2,632,117	499,113,000
Total revenue								
Total revenue per person								
Total revenue per km								
Average price								

Director of VCSBE Financial division Passengers transportation division Summary by 4



Bus Service Quality Indices for VCSBE (tentative)

Quality criteria	Index	2011	2012	2015 (Target)
Network	Total operation length	128km (February)	366km (September)	300km
	Operation Number (per day)	177 (2010) 190 (Feb 2011)	263 (September)	211 (Preliminary)
Operation	Caring capacity (Pop-km per day)	155,300 (February)	364,700 (September)	331,000 (Preliminary)
	Number of Passenger (Pop per day)	6,270 (February)	9,540 (September)	10,000
Passenger	Passenger per vehicle	16 (February)	18 (September)	20

Note: Passenger per vehicle is calculated total bus service in Vientiane capital, including Big bus, small bus and electric bus

In addition,

- Excel training: Spare parts, Maintenance record
- Digital tachograph: Operation records, Fuel consumptions
- ICT Ticket System: Number of passengers by categories

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Challenge: How to collect user's evaluation on bus services by VCSBE ?

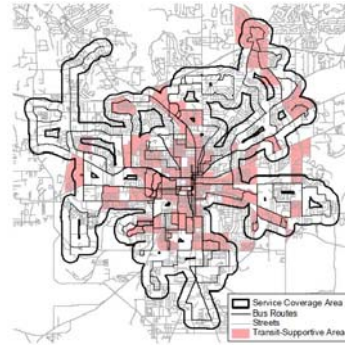


Possibly:

- Enhance Division of Planning and Transport
- Cooperate with NUOL
- Develop business department

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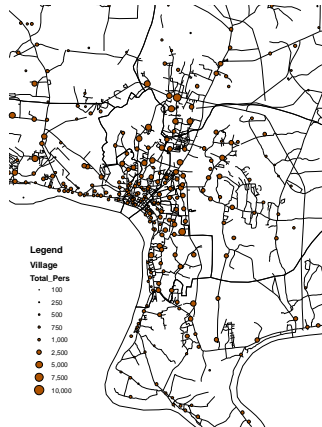
Sample analysis on bus service coverage area



Source) TCRP Report 100 Transit Capacity and Quality of Service Manual, 2nd Edition, 2003

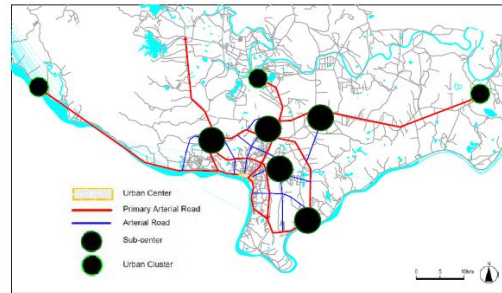
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Sample GIS in Vientiane



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Future Development Plan



Source) The Project for Urban Development M/P Study in Vientiane Capital (JICA, 2011)

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Bus Service Quality Indices

Date: 5 February, 2014, Wednesday, 2:00pm

Place: VCSBE Meeting Room

Agenda

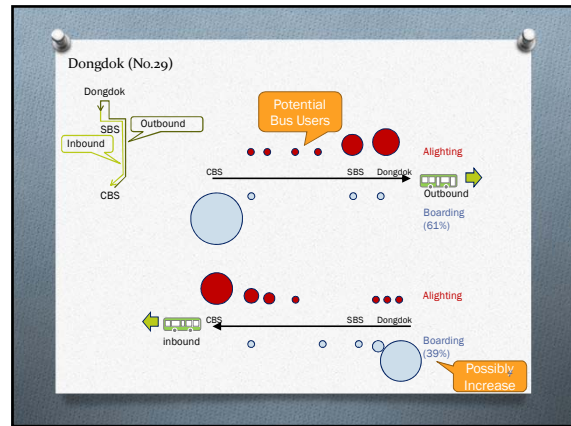
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Mr. KUNIMASA Yoshiro
2. Discussion

Participants:

VCSBE	Mr. Khamphoune TEMERATH, Director of VCSBE Mr. Bounpone FONGMANY, Deputy Director of Technical Affairs Mr. Vanly CHANCHALERN, Deputy Director of Administrative Affairs Mr. Bouapha PHETVISAY, Deputy Director of Planning division
DPWT/VC	Mr. Somsanith HOUATHONGKHAM
DoT/MPWT	Mr. Phouthasai SILISAK
JICA Project Team	Mr. Kunimasa Yoshiro Mr. SHIMEGI Natsuki Mr. Siththiphon CHANTHOTHAVONG, Engineer's assistant Mr. Chanthala VORRASING, Engineer Ms. Palitda CHANSY, Assistant

Bus Service Improvement: On-time Operation at Bus Stops

KUNIMASA Yoshiro
5 Feb, 2014



Background

- o User's requests: Punctual bus operations, Time table installation at bus stops
- o Present users ridership:
 - Passengers from CBS is dominant
 - CBS to destination is larger than opposite
 - A few passengers ride from bus stops
- o There are potential demands to use public bus bound to CBS, from where passengers alight from CBS

Target

- o To increase number of passengers bound to CBS
- o To increase number of passengers riding at bus stops

Measurement

- o To install time table on bus stops
- o To distribute handy time tables to passengers
- o To operate bus service at the appointed time

Passengers from CBS is dominant

Route Name	Route No	Outbound ratio	Inbound ratio	Ref. No. of Passengers for a round trip
Dongdok	29	61%	39%	46
Thangon	23	61%	39%	45
Friendship Bridge	14	54%	46%	56
Thongpong	30	80%	20%	20
Phontong	31	63%	37%	40
Dongpamay	32	53%	47%	15
Dong Kham Xang	20	70%	30%	26

Note: Inbound and outbound ratio is the result of on-board survey in September 2012
Number of passengers are provided from Planning Department, VCSBE

Activity

- o Preparation
- o Discussion with Planning Department
- o Study and selection of pilot routes
- o Study and selection of bus stops
- o Schedule and prepare bus time table
- o Explanation to bus drivers
- o Publicity activity
- o Implementation
- o Evaluation

* Red colored letter shows done or in action

Bus Time Table

- Time table on bus stops
- Time table for passengers

No. 29 (CBS -> Donggak) at CBS			No. 29 (Donggak -> CBS) at Donggak		
Hours	Minutes		Hours	Minutes	
6	30	45	6	00	20
7	00	15	7	00	20
8	00	20	8	10	25
9	00	20	9	00	20
10	00	20	10	00	20
11	00	20	11	00	20
12	00	20	12	00	20
13	00	20	13	00	20
14	00	20	14	00	20
15	00	20	15	00	20
16	00	20	16	00	20
17	00	20	17	00	20
18	00		18	00	

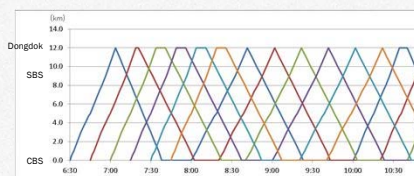
Interview



Output

- Timetables are installed on selected bus stops
- On-time operation at bus stops is conducted
- VCSBE manages bus operation by using Digital Tachograph or GPS
- Number of passengers is increased

Diagram



Summary of Small Interview Survey at CBS for Tongpong (No. 30) and Nongteng (No.49)

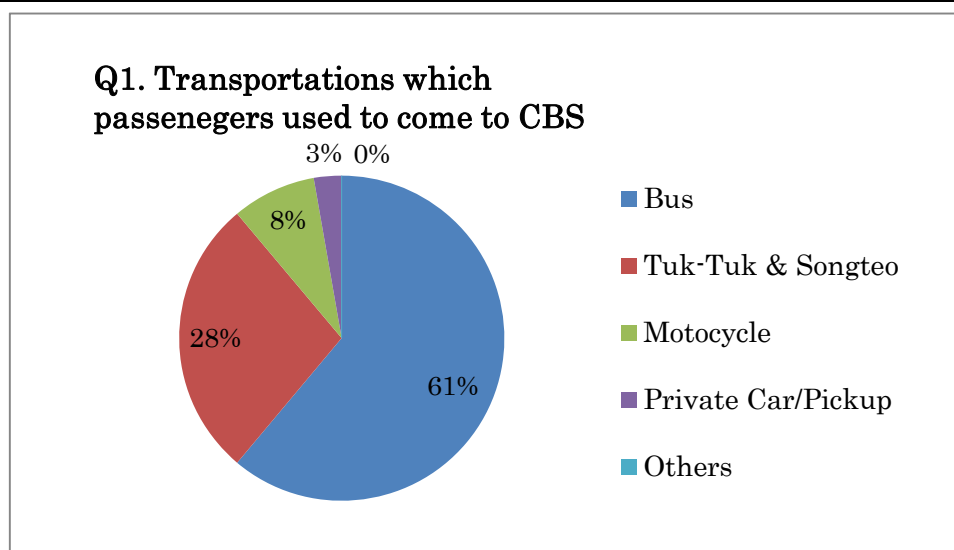
1. Date: 30 January, 2014

2. Number of Interviewee: 36 in total at CBS waiting in the Buses

Route	Number	Col %
Tongpong (30)	29	51%
Nongteng (49)	7	4%
Total	36	100%

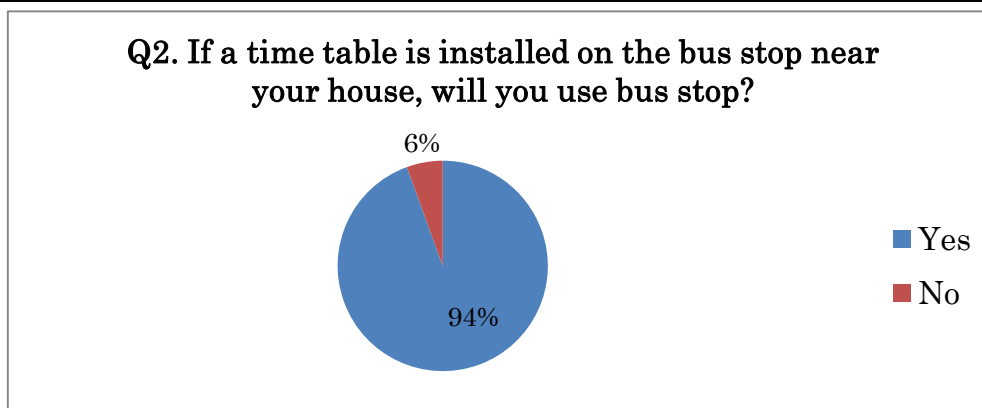
3. Q1: Mode to CBS

Bus	Tuk-Tuk & Songteo	Motocycle	Private Car/Pickup	Others	Total
22	10	3	1	0	36
61.1%	27.8%	8.3%	2.8%	0.0%	100%



4. Q2: Time table

Yes	No	Total
34	2	36
94.4%	5.6%	100%



Summary of Small Interview Survey at CBS for Tongpong (No. 30) and Nongteng (No.49)

5. Q3: Priority of Public Bus for passengers.

Yes	No	Total
33	3	36
91.7%	8.3%	100%

Q3. When you are waiting at bus stops, if other kind of public services, such as sontew, tuku-tuku came, will you use that service?



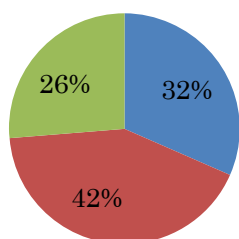
6. Q4-1: Deprture Time to CBS

Time	Number	Percentage
01. 05:00 - 08:00 a.m	6	31.6%
02. 08:00 - 09:00 a.m	8	42.1%
03. 09:00 - 11:00 a.m	5	26.3%
Total	19	100%

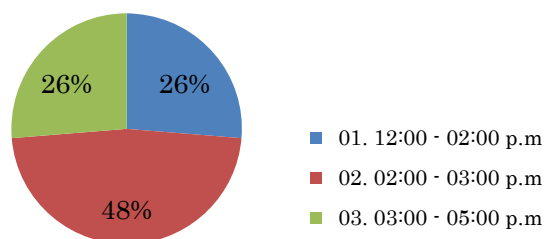
7. Q4-2: Departure Time to home

Time	Number	Percentage
01. 05:00 - 08:00 a.m	5	26.3%
02. 08:00 - 09:00 a.m	9	47.4%
03. 09:00 - 11:00 a.m	5	26.3%
Total	19	100%

Q4. 4.1. Come to CBS



Q4. 4.2 Back from CBS



Bus Service Quality Indices

Date: 4 February, 2015, Wednesday, 3:00pm

Place: VCSBE Meeting Room

Agenda

1. Criteria to Measure Level of Service
Mr. KUNIMASA Yoshiro
2. Discussion

Participants:

VCSBE	Mr. Khamphoune Temerath, Director Mr. Bounpone Fongmany, Deputy Director Mr. Vanly Vanchalern, Deputy Director Mr. Bouapha Phetvixai, Deputy Director Mr. Thanongsy Dethvongsone, Bus Operation Plan
DPWT/VC	Mr. Somsanid HUATHONGKHAM
JICA Project Team	Mr. Kunimasa Yoshiro, Vice Team Leader/Bus Service/Human Resource Development 2 Mr. Yashiro Shuichi, Transport and Traffic Plan Mr. Chanthala VORRASING, Engineer Mr. Sithiphon Chanthothavong, Engineer Assistant Ms. Thepsouda Nanhdavong, Secretary

Criteria to Measure Level of Service

4 February, 2015
Kunimasa Yoshiro

Issues to be Discussed

- Updated Level of Service Quality Indices
- How to set criteria of bus service level ?
 - 1) Internal Target of VCSBE
 - 2) Agreement with DPWT
 - 3) Agreement with MPWT
 - 4) Target of Medium term business and investment plan
 - 5) Announce to Citizens

Bus Service Quality Indices for VCSBE (as of April 2013)

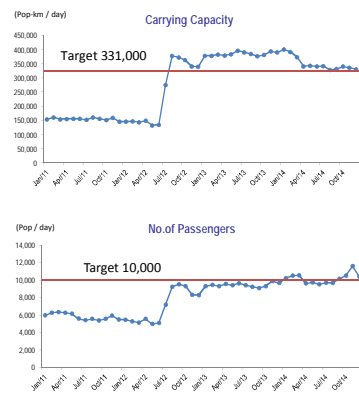
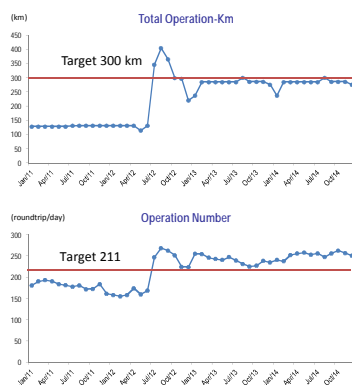
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Network	Total operation length	128km (February)	366km (September)	300km
	Operation Number (Roundtrips per day)	177 (2010)	263 (September)	211 (Preliminary)
Operation	Carrying capacity (Pop-km per day)	155,300 (February)	364,700 (September)	331,000 (Preliminary)
	Number of Passenger (Pop per day)	6,270 (February)	9,540 (September)	10,000
Passenger	Passenger per Roundtrip (Pop per roundtrip)	16 (February)	18 (September)	20

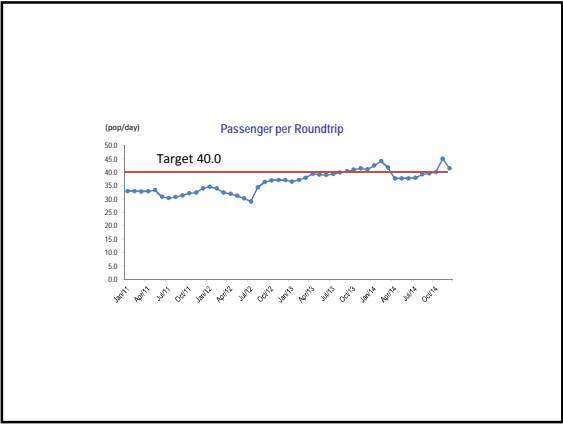
Note: Passenger per vehicle is calculated total bus service in Vientiane capital, including Big bus, small bus and electric bus

3

Updated Bus Service Quality Indices for VCSBE (as of December 2014)

Quality criteria	Index	2011 (Before New Bus)	2012 (After New Bus)	2013	2014	2015 (Target)
Network	Total operation length	128km (Feb)	366km (Sep)	286km (Sep)	286km (Sep)	300km
	Operation Number (Roundtrips per day)	190 (Feb)	263 (Sep)	225 (Sep)	256 (Sep)	211 (Preliminary Survey)
Operation	Carrying capacity (Pop-km per day)	161,000 (Feb)	373,600 (Sep)	377,700 (Sep)	333,000 (Sep)	331,000 (Preliminary Survey)
	Number of Passenger (Pop per day)	6,270 (Feb)	9,540 (Sep)	9,100 (Sep)	10,140 (Sep)	10,000
Passenger	Passenger per Roundtrip (Pop per roundtrip)	32.9 (Feb)	36.3 (Sep)	41.6 (Sep)	39.6 (Sep)	40





App4 Workshop Materials

Act 2-4 Plan and Review Bus Routes and Bus Stop Locations Responding to Community Demand

No.	Date	Seminar / Workshop	Page
1	9 Sep, 2014	1. Overview of GIS 2. ArcGIS Basics 3. Understanding GIS Data 4. Coordinate Systems 5. Working with Arc Map	App4-318
2	11 Sep, 2014	6. Creating New Features, Digitization and Managing Map Layers 7. Using Coordinate Systems 8. Symbolizing, Layout, Labeling 9. Data and Map Exporting and Printing	
3	16 Sep, 2014	10. Data Conversion to/from GIS (Google Earth, AutoCAD,...) 11. Importing GPS Data 12. Geo-database 13. Editing GIS Data 14. Projection and Transformation of GIS Data	
4	18 Sep, 2014	15. Performing Simple Analysis (Spatial, Network, Tracking Analysis, etc.) 16. Preparing Base Map 17. Preparing Bus Route Map, Bus Stop 18. Working with Multiple Data Frames	

The Project to Enhancement the Capacity of Vientiane Capital State Bus Enterprise

Name of Training : GIS Training (ArcGIS) for Public Bus Service

Overall Training Objective : (1) To make counterpart officials familiar with ArcGIS software in using it for utilizing in planning, analysis, operation, etc. of their activities.

Training Materials: Handouts, User Manuals, Tutorial Videos and Demonstration on Computer

Venue : Computer Room, Faculty of Engineering, NUOL


Training Program

		ArcGIS Training															
Objective	:	<ul style="list-style-type: none"> ▪ To make familiar with Basic Function of GIS for analysis and operation of software, and develop Medium Level human resources for using GIS for various planning, operation and management purpose (route planning, bus stop planning, accessibility analysis, making various maps for planning, operation and management of public transportation. 															
Date	:	September 09, 11, 16 and 18, 2014															
Time	:	9:00 ~ 12:00															
Training Method	:	Lecture and Practice on the Computers															
Trainer / Instructor	:	Dr. Bhoj Raj Pantha, JICA Project Team															
Targeted Trainee	:	Officials of MPWT <ul style="list-style-type: none"> ▪ DPWT, Vientiane Capital ▪ Planning and Budget Division, DOT, MPWT ▪ Traffic Management Division, DOT, MPWT ▪ Land Transport Division, DOT, MPWT ▪ Vientiane Capital State Bus Enterprise ▪ Traffic Police, Vientiane Capital ▪ Others 															
No. of Targeted Trainee	:	Max. Ten (10)															
Requirements	:	1. Basic computer operational knowledge 2. Hardware and Software: Hardware: Laptop Computers with Microsoft Windows environment Software: ArcGIS 10.X Version (Commercial or Trial Version) 3. Trainees shall affiliate in Transportation / road related division															
Training Items (Tentative) ** Training items are subject to revise considering the performance level of trainees		<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td rowspan="5" style="text-align: center; vertical-align: middle;">1st course</td> <td>1. Overview of GIS</td> </tr> <tr> <td>2. ArcGIS Basics</td> </tr> <tr> <td>3. Understanding GIS Data</td> </tr> <tr> <td>4. Coordinate Systems</td> </tr> <tr> <td>5. Working with Arc Map</td> </tr> <tr> <td rowspan="4" style="text-align: center; vertical-align: middle;">2nd course</td> <td>6. Creating New Features, Digitization and Managing Map Layers</td> </tr> <tr> <td>7. Using Coordinate Systems</td> </tr> <tr> <td>8. Symbolizing, Layout, Labeling</td> </tr> <tr> <td>9. Data and Map Exporting and Printing</td> </tr> <tr> <td rowspan="3" style="text-align: center; vertical-align: middle;">3rd course</td> <td>10. Data Conversion to/from GIS (Google Earth, AutoCAD,...)</td> </tr> <tr> <td>11. Importing GPS Data</td> </tr> <tr> <td>12. Geo-database</td> </tr> </tbody> </table>	1 st course	1. Overview of GIS	2. ArcGIS Basics	3. Understanding GIS Data	4. Coordinate Systems	5. Working with Arc Map	2 nd course	6. Creating New Features, Digitization and Managing Map Layers	7. Using Coordinate Systems	8. Symbolizing, Layout, Labeling	9. Data and Map Exporting and Printing	3 rd course	10. Data Conversion to/from GIS (Google Earth, AutoCAD,...)	11. Importing GPS Data	12. Geo-database
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		13. Editing GIS Data
		14. Projection and Transformation of GIS Data
		15. Performing Simple Analysis (Spatial, Network, Tracking Analysis, etc.)
		16. Preparing Base Map
		17. Preparing Bus Route Map, Bus Stop
	4th course	18. Working with Multiple Data Frames
Expected Output	:	Familiarization with GIS software, basic tools & functions, simple map creation, map saving & printing, simple analysis (Bus Stop Spacing), etc.

Participants List of GIS Training (ArcGIS) for Public Bus Service

SN	Name	September 9, 2014	September 11, 2014	September 16, 2014	September 18, 2014	Organization	Department	Position
		1st Training Course	2nd Training Course	3rd Training Course	4th Training Course			
1	Mr. Kham savang THEPPHOMMACHANH	√	√	√	√	VCSBE	Division of Planning and Budgeting	Officer
2	Mr. Thanongsy DETVONGSONE	√	√	√	√	VCSBE	City Bus Section	Chief
3	Mr. Somsanith HOUATHONGKHAM	√		√		DPWT	Traffic Management Department	Officer
4	Mr. Phimpho ZAMOUNTY	√	√	√	√	NUOL	Faculty of Engineering	Student
5	Mr. Khayphavanh OUDOMSACK	√	√	√	√	VCSBE	IT Section	IT Expert
6	Mr. Khamphone LUANGDY	√	√	√	√	Traffic Police	Vientiane Capital	Chief
7	Mr. Sisouphanh PHOMMANIVONG	√	√	√	√	NUOL	Faculty of Engineering	Lecturer
8	Mr. Phongsavanh INTHAVONG	√	√	√	√	NUOL	Transport	Lecturer
9	Mr. Baengchan PHOUMMECHAN	√	√	√	√	DPWT	Transport	Officer
10	Mr. Vannalate NORKEO	√	√	√	√	DPWT	Transport	Officer
11	Mr. Saythavone SIHANATH	√	√	√	√	DPWT	Transport	Officer
12	Mr. Poutthasay SIRISACK	√	√	√	√	DOT	Division of Planning and Budgeting	Technical officer
13	Mr. Vannitha KIMANIVONG	√				DPWT	Transport	Officer
14	Mr. Vernsone PHENGSOULITH		√	√	√	NUOL	Faculty of Engineering	Instructor
15	Mr. Khametin SUPHUNSY		√	√	√	NUOL	Faculty of Engineering	Student
16	Mr. Thongthep KEOSILA		√		√	NUOL	Faculty of Engineering	Student
17	Mr. Dethmany OANSOUVANH			√	√	DOT	Transport	Staff



**The Project to Enhance the Capacity of Vientiane
Capital State Bus Enterprise
in Lao PDR**

**Training
on
Geographic Information System (GIS) for
Public Bus Services**

Dr. Bhoj Raj Pantha
JICA Project Team

September , 2014

1. Overview of GIS

GIS Overview

Contents

- What is GIS?
- Major GIS Functions
- GIS Approach
- Benefits of GIS
- Components of GIS
- Use of GIS
- GIS Software
- ArcGIS
- Computer System Requirements
- Introduction to ArcGIS (Operations and Tools)

What is GIS? (1/3)

A GIS is a computer-based system that provides the following four sets of capabilities to handle georeferenced data:

1. Data capture and preparation
2. Data management, including storage and maintenance
3. Data manipulation and analysis
4. Data presentation

A geographic information system (GIS) integrates hardware, software, and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information.
- ESRI

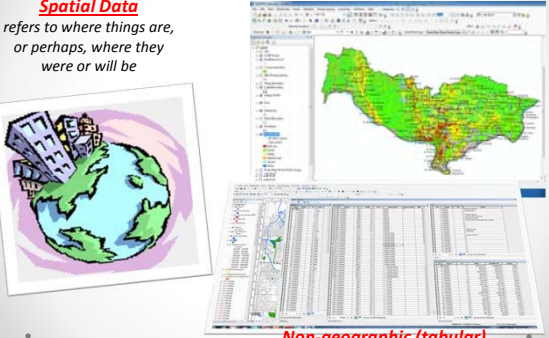
What is GIS? (2/3)

- Furthermore, GIS
 - Links **databases and maps**
 - **Manages various information** about places, objects, etc.
 - Helps answer questions such as:
 - Where is it?
 - What else is nearby?
 - Where is the highest concentration of 'X'?
 - Where can I find things with characteristic 'Y'?

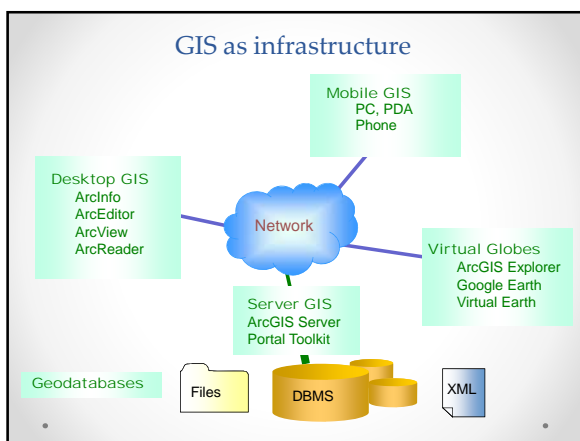
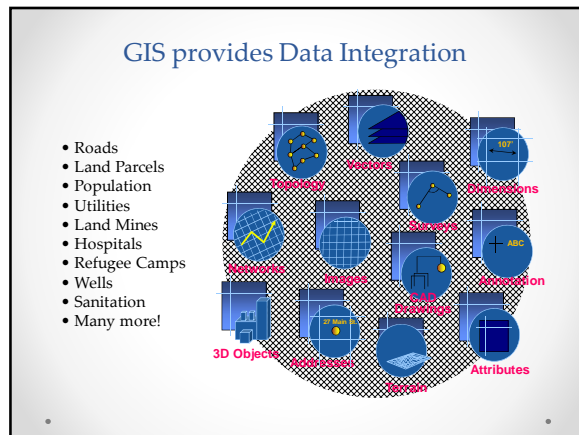
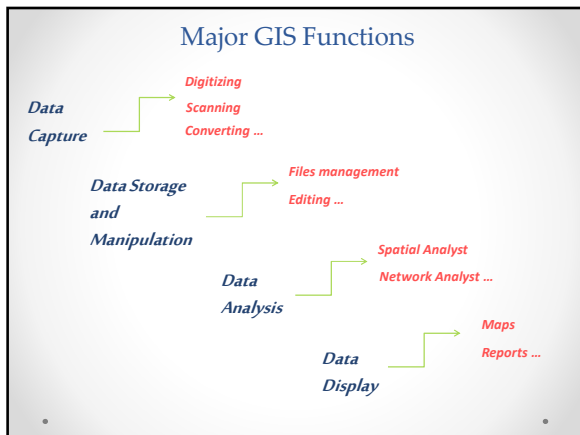
What is GIS? (3/3)

Geographic

Spatial Data
*refers to where things are,
or perhaps, where they
were or will be*

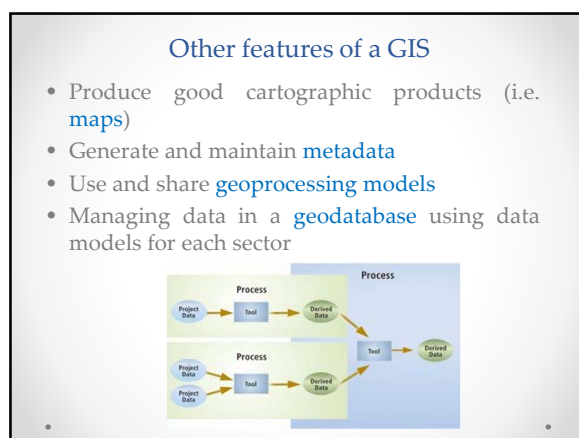
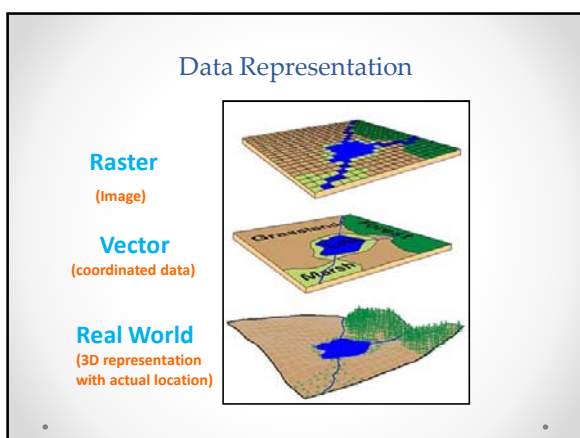


Non-geographic (tabular)



Two fundamental types of data

- **Vector**
 - A series of x, y coordinates
 - For discrete data represented as points, lines, polygons
- **Raster**
 - Grid and cells
 - For continuous data such as elevation, slope, surfaces
- A Desktop GIS is able to handle both types of data effectively!



The Geographic Approach (1/3)

The Geographic approach consists of five steps:

- Step 1: Ask
- Step 2: Acquire
- Step 3: Examine
- Step 4: Analyze
- Step 5: Act



Five Steps of Geographic Approach

Step 1: Ask

Approaching a problem geographically. What is the problem you are trying to solve or analyze, and where is it located?



Framing the problem

The Geographic Approach (2/3)

Step 2: Acquire

After clearly defining the problem, it is necessary to determine the data needed to complete your analysis and ascertain where that data can be found or generated. (Digitization from images, importing from other sources, field survey, etc.)



Satellite Imagery

Step 3: Examine

You will not know for certain whether the data you have acquired is appropriate for your study until you thoroughly examine it.



Examining after Digitization

The Geographic Approach (3/3)

Step 4: Analyze

The data is processed and analyzed based on the method of examination or analysis you choose, which is dependent on the results you hope to achieve.

Analyzing the current condition of Land Use in Vientiane



Step 5: Act

The results can be shared through reports, maps, tables, and charts and delivered in printed form or digitally.

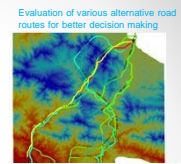
Public Bus Route and Bus Stop Planning based on Population Density



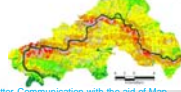
Benefits of GIS (1/2)

GIS benefits organizations of all sizes and in almost every industry. There is a growing awareness of the economic and strategic value of GIS. The benefits of GIS generally fall into five basic categories:

- **Cost Savings and Increased Efficiency**
Example: Maintenance optimization and vehicle routings
- **Better Decision Making**
Example: for infrastructure planning and management through simple to sophisticated analysis.
- **Improved Communication**
Example: GIS-based maps and visualizations greatly assist in understanding situations



Highway Information Management System (IS, Korea)

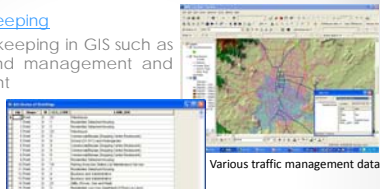


Better Communication with the aid of Map (Road Slope Disaster Management)

Benefits of GIS (2/2)

Better Recordkeeping

Example: Record keeping in GIS such as utility facilities, land management and asset management



Various traffic management data

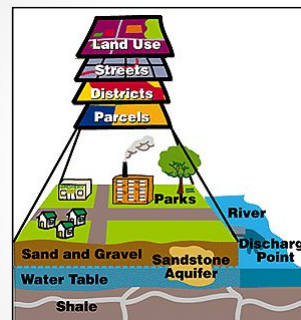
Managing Geographically

Example: Managing projects geographically. Modeling and designing can be done in GIS



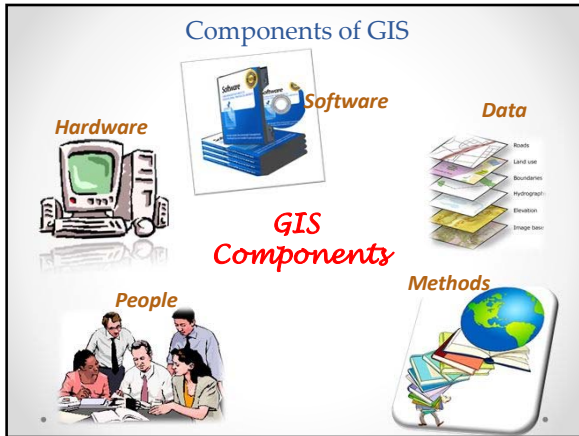
Public Bus Tracking System using GIS, GPS and Internet

Abstracting the Real World by GIS



Technologies for acquiring surface and underground information:

- Remote Sensing
- Satellite Imagery
- Aerial Photography
- GPS
- etc.

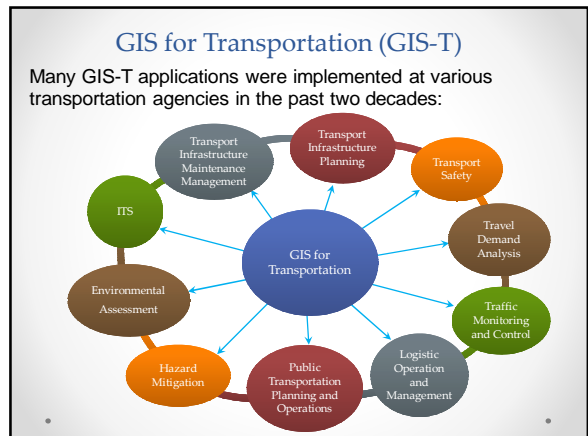


- ### Use of GIS
- GIS used in multiple disciplines:
- Agriculture
 - Archaeology
 - Architecture/Landscape Arch.
 - Business
 - Environmental Science
 - Engineering
 - Military Science
 - Natural Resource Management
 - Geography / Geology
 - Meteorology
 - Oceanography
 - Law Enforcement
 - Public Health
 - History / Sociology
 - Urban/Regional Planning
 -and many more
-

- ### Agriculture
- o Farm management
 - o Pest/Disease tracking
 - o Crop monitoring
 - o Yield prediction
 - o Soil analysis
-

- ### Natural Resource Management
- Forestry
 - Ecology
 - Mining
 - Petroleum
 - Water Resources
-

- ### Planning and Economic Development
- Land Use Planning
 - Emergency Preparedness
 - Population Forecast
 - Market Analysis
 - Property Tax Assessment
 - Transportation
-



GIS Software

Commercial Software

- > ArcGIS
- > MapInfo
- > Manifold
- > AutoCAD
- > ERDAS Imagine
- > ENVI
- > Global Mapper
- > TransCAD
- > Etc...

Open Source Software

- > Grass GIS
- > Q_GIS
- > ILWIS
- > JUMP GIS
- > Etc...



2. ArcGIS Basics

ArcGIS

Version of ArcGIS Desktop

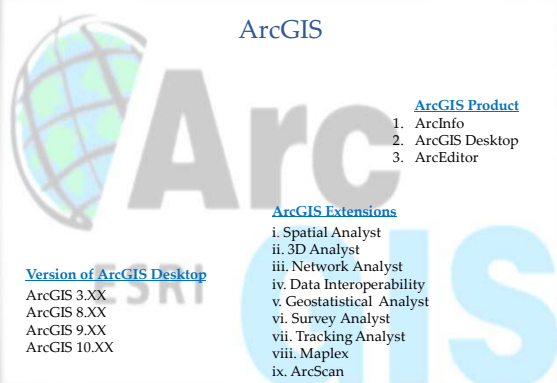
- ArcGIS 3.XX
- ArcGIS 8.XX
- ArcGIS 9.XX
- ArcGIS 10.XX

ArcGIS Product

1. ArcInfo
2. ArcGIS Desktop
3. ArcEditor

ArcGIS Extensions

- i. Spatial Analyst
- ii. 3D Analyst
- iii. Network Analyst
- iv. Data Interoperability
- v. Geostatistical Analyst
- vi. Survey Analyst
- vii. Tracking Analyst
- viii. Maplex
- ix. ArcScan

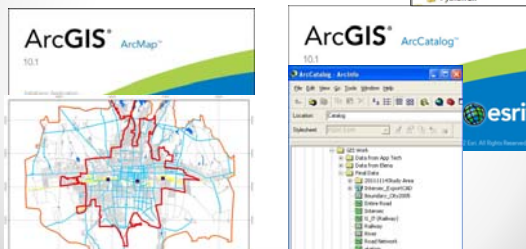
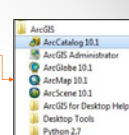


Computer Systems Requirements (for ArcGIS 10.1)

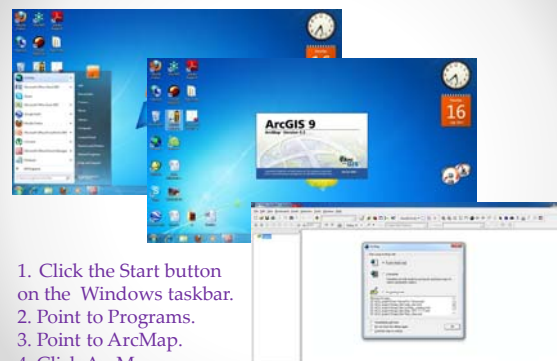
Supported Operating System	Windows Server (32-bit) Windows 7, 8 / Vista / XP (32-bit & 64-bit)
CPU Speed	1.6 GHz, recommended or higher
Processor	Intel Core Duo, Pentium 4 or Xeon Processors 1 GB minimum, 2 GB recommended or higher
Memory / RAM	2 GB or 3 GB (recommended)
Display Properties	24 bit color depth (recommended)
Screen Resolution	1024 x 768 (recommended or higher at Normal size [96dpi])
Swap Space Determined by the operating system	500 MB minimum
Disk Space	2-4 GB
Video/Graphics Adapter	24-bit capable graphics accelerator
Networking Hardware	Simple TCP/IP

ArcGIS

- ArcGIS has five (4) application components. However, ArcMap and ArcCatalog are heavily used.
- ArcMap (for visualization and mapping)
- ArcCatalog (Data storage and management)

Starting ArcMap



1. Click the Start button on the Windows taskbar.
2. Point to Programs.
3. Point to ArcMap.
4. Click ArcMap.

Starting ArcCatalog

ArcCatalog act as a databank. All types of data can be checked in ArcCatalog. Also it provides;

1. Click the Start button on the Windows taskbar
2. Point to Programs
3. Point to ArcCatalog
4. Click ArcCatalog

1. Contents: List of data
2. Preview: Map (geography) and Table (Attribute)
3. Metadata

ArcMap Interface

Labels in the screenshot: Menu bar, Tools Toolbar, Standard Toolbar, Table of Contents, Data Addition, Canvas.

Opening Map

Three options are available

- i. A new Empty Map
- ii. A Template
- iii. An Existing Map

1. Click a new empty map
2. Navigate to the folder
3. Select the existing file

Standard pre-designed map format

Creating GIS file

1. Click a new empty map
2. Navigate to ArcCatalog
3. Select the folder to create a new file
4. Navigate to New and click Shapefile
5. Write Name of Feature
6. Select Feature type you want to create (point/polyline/polygon etc.)
7. Define Coordinate System (click Edit)
8. Select /import/new coordinate system
9. Select GCS or Projected Cord. System
10. Select Type of system (eg. UTM)
11. Select you geographical zone (for UTM)
12. Click OK

Creating New GIS Map

- Open a new empty map
- Click ArcCatalog (or click+) to add data in the map
- Navigate data in ArcCatalog
- Select the data (double click or drag data from ArcCatalog drop to ArcMap)

Drag & Drop

Working in ArcMap

- Data Display
- Color Management
- Data Layer Arrangement (Up and Down)
- Data Labeling
- Setting Data Frame Properties
- Setting ArcMap Toolbar
- Inserting Pictures and Objects
- Layer On / Off
- Zooming In/Out
- Map Refreshing
- Importing Data from GPS

Saving a New Map

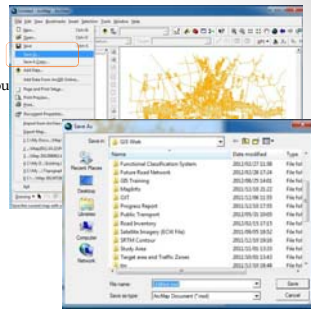
1. Click to File
2. Click "Save" or "Save As" or "Save A Copy"
3. Navigate to the folder where you want to save map

Note:

Save: without changing Name

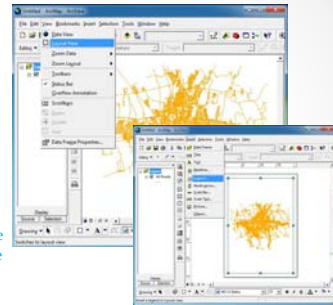
Save As: Can be changed File Name

Save a Copy: Can be saved in even in older version of GIS

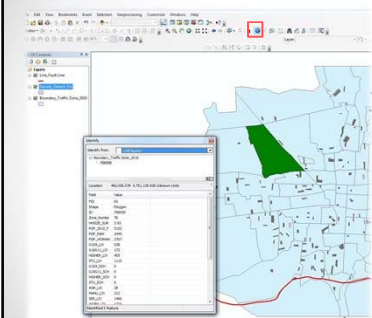


Setting Map Layout

- Go to View
- Click Layout View
- Set Page Set Up and Printer
- Insert Legend, Map Title, North Arrow, Scale etc.
- Set Extend of Data Frame
- Adjust map within the designed layout frame

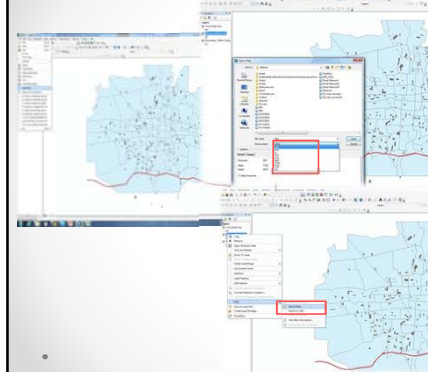


Checking Information on the Map Window



- Click the Identify button on the Tools toolbar
- In the map window, click on a feature to view information about it.

Export Data and Map



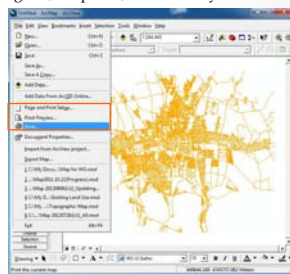
Export
Map

Export
Data

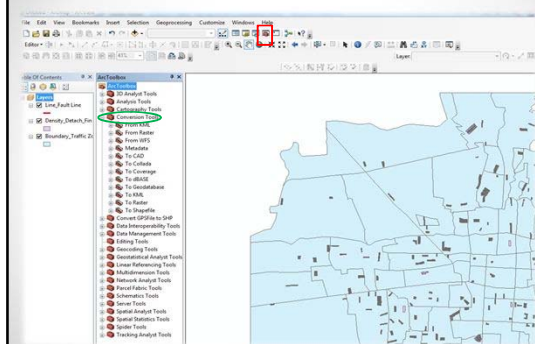
Map Printing

Map can be printed both from Data view mode and layout view mode. However, printing from layout view mode is recommended because you can print map with scale bar, legend, map title, etc. from layout view mode.

- Click File
- Set Page and Printer Setup if it is not set already
- Check Print Preview before printing
- Click Print



GIS Data Conversion



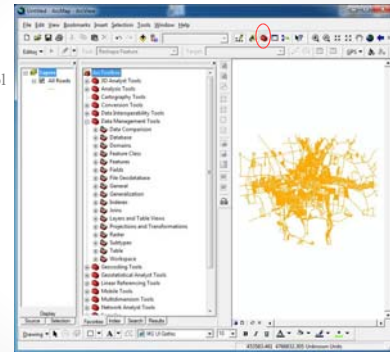
Editing GIS Data (Shape File)

- GIS Shapefile data can edit (creating a new feature, merging, easily in ArcMap window.
- Go to Editor Toolbar
- Select the file you want to edit
- Check the file you selected is displayed in Target Combo-Box
- Enable Snapping Option if you wish
- Select type of editing
- Possible editing button will automatically activated based on file type you wanted to edit
- Click "Save Edits" to save data
- Click "Stop Editing" when you finish the editing task



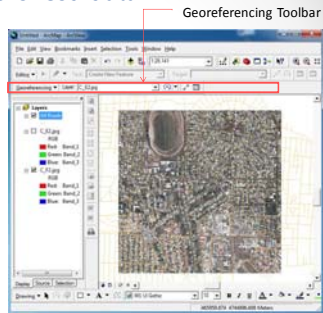
Introduction of ArcToolbox

- Click to ArcToolbox Tool either from ArcMap or ArcCatalog
- Select the toolbox which you want to use



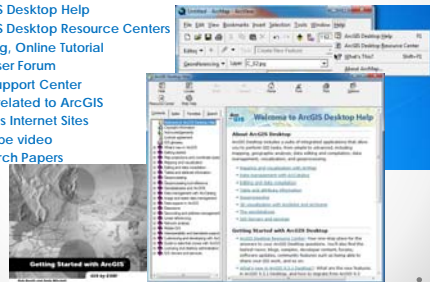
Geo-referencing of Images or non-geo-referenced data

- Images or scanned copy of old maps, drawings or documents can be digitized and can be used as GIS Data for various purposes.
- However, to use them properly, it is necessary to geo-referenced them geographically.
- GIS has a tool to do georeferencing which help to regenerate old maps/documents as digital GIS data.

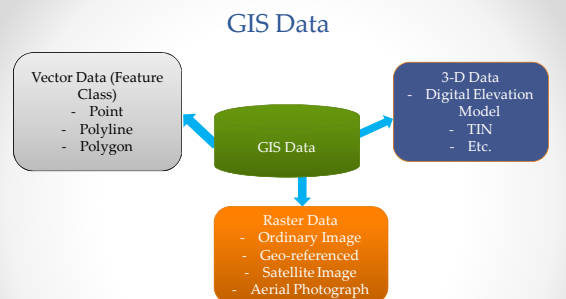


Mastering in ArcGIS

- Various materials are available for mastering in ArcGIS and some of them are as below;
 - i. ArcGIS User Manual
 - ii. ArcGIS Desktop Help
 - iii. ArcGIS Desktop Resource Centers
 - iv. Training, Online Tutorial
 - v. ESRI User Forum
 - vi. ESRI Support Center
 - vii. Blogs related to ArcGIS
 - viii. Various Internet Sites
 - ix. Youtube video
 - x. Research Papers
 - xi. Books
 - xii. Etc.



3. Understanding of GIS Data



Vector Data GIS Data

Point
Line
Polyline
Polygon

Point Feature:
Just Point
(e.g. Bus Stop)

Polyline Feature:
Single or Multiple Lines (Open)
(e.g. Road Network)

Polygon Feature:
Closed Shape with multiple sides
(e.g. District Boundary)

Digital Elevation Model (DEM) Topographical Contour

Raster GIS Data

Satellite and Images
Aerial Photograph

3-D GIS Data

Digital Elevation Model (DEM)

Topographical Contour

Triangulated Irregular Network (TIN)

4. Coordinate Systems

Coordinate System (1/7)

1. What are map projections?

- Within ArcGIS, every dataset has a coordinate system, which is used to integrate it with other geographic data layers within a common coordinate framework such as a map. Coordinate systems enable you to integrate datasets within maps as well as to perform various integrated analytical operations such as overlaying data layers from disparate sources and coordinate systems.

Coordinate System (2/7)

2. What is a coordinate system?

Coordinate systems enable geographic datasets to use common locations for integration. A coordinate system is a reference system used to represent the locations of geographic features, imagery, and observations such as GPS locations within a common geographic framework.

Each coordinate system is defined by:

- Its measurement framework which is either geographic (in which spherical coordinates are measured from the earth's center) or planimetric (in which the earth's coordinates are projected onto a two-dimensional planar surface).
- Unit of measurement (typically feet or meters for projected coordinate systems or decimal degrees for latitude-longitude).
- The definition of the map projection for projected coordinate systems.
- Other measurement system properties such as a spheroid of reference, a datum, and projection parameters like one or more standard parallels, a central meridian, and possible shifts in the x- and y-directions.

Coordinate System (3/7)

3. Types of coordinate systems

There are **two common types** of coordinate systems used in GIS:

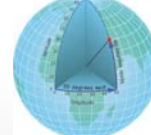
- A **global or spherical coordinate system** such as latitude-longitude. These are often referred to as geographic coordinate systems.
- A **projected coordinate system** based on a map projection such as transverse Mercator, Albers equal area, or Robinson, all of which (along with numerous other map projection models) provide various mechanisms to project maps of the earth's spherical surface onto a two-dimensional Cartesian coordinate plane. Projected coordinate systems are sometimes referred to as map projections.



Coordinate System (4/7)

4. What are geographic coordinate systems?

- A geographic coordinate system (GCS) uses a **three-dimensional spherical surface to define locations on the earth**. A GCS is often incorrectly called a datum, but a datum is only one part of a GCS. A GCS includes an angular unit of measure, a prime meridian, and a datum (based on a spheroid).
- A point is referenced by its **longitude and latitude values**. Longitude and latitude are angles measured from the earth's center to a point on the earth's surface. **The angles often are measured in degrees (or in grads)**. The following illustration shows the world as a globe with longitude and latitude values.



Coordinate System (5/7)

5. What are projected coordinate systems?

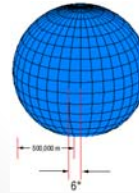
- A projected coordinate system is defined on a **flat, two-dimensional surface**. Unlike a geographic coordinate system, a projected coordinate system has constant lengths, angles, and areas across the two dimensions. **A projected coordinate system is always based on a geographic coordinate system that is based on a sphere or spheroid**.
- In a projected coordinate system, locations are identified by **x, y coordinates on a grid, with the origin at the center of the grid**. Each position has two values that reference it to that central location. One specifies its horizontal position and the other its vertical position. The two values are called the **x-coordinate and y-coordinate**. Using this notation, the coordinates at the origin are $x = 0$ and $y = 0$.



Coordinate System (6/7)

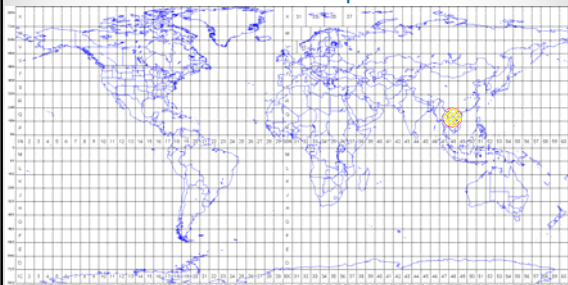
6. Universal Transverse Mercator

The Universal Transverse Mercator (UTM) system is a specialized application of the transverse Mercator projection. The globe is divided into **60 north and south zones, each spanning 6° of longitude**. Each zone has its own central meridian. Zones 1N and 1S start at 180° W. The limits of each zone are 84° N and 80° S, with the division between north and south zones occurring at the equator. The polar regions use the Universal Polar Stereographic coordinate system.



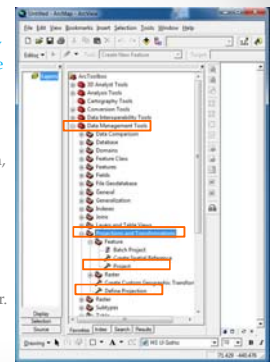
Coordinate System (7/7)

UTM Zone Map



Defining Coordinate System in ArcGIS

- Coordinate system is very much important in GIS. **If you wrongly define the coordinate system, the object you locate in geography will be either located in wrong place or does not display**. Unless you have defined several GIS files in a same coordinate system, you can not displayed them in a same map.
- ArcGIS has a tool <<**Projections and Transformations**>> for defining, projection and transformation of GIS file from one coordinate system to another.



Thank You Very Much for Your Kind
Attention

Course: 2nd
Day: 2nd
2014/09/11

Creating New Features

1. Basic Steps

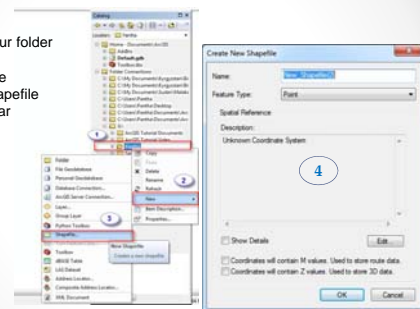
- i. Creating new shapefile (Point, Polyline, Polygon,)
- ii. Defining Coordinate System for New Shapefile
- iii. Adding Fields as you need
- iv. Opening New Shapefile in editable mode
- v. Setting Editing Environment
- vi. Draw Features
- vii. Inputting Information on newly drawn features
- viii. Saving New Shapefile (after editing)

Creating New Features

i. Creating new shapefile (Point, Polyline, Polygon,)

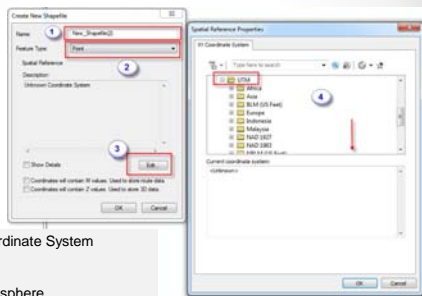
- (1) Right Click your folder
- (2) Click New
- (3) Click Shapefile

- Create New Shapefile window will appear



Creating New Features

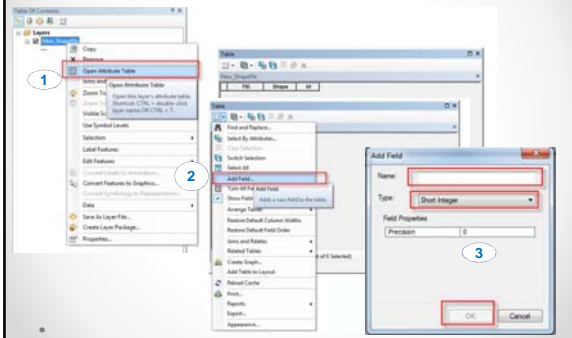
ii. Defining Coordinate System for New Shapefile



- > Projected Coordinate System
- > UTM
- > WGS 1984
- > Northern Hemisphere
- > WGS 1984 UTM Zone 36N

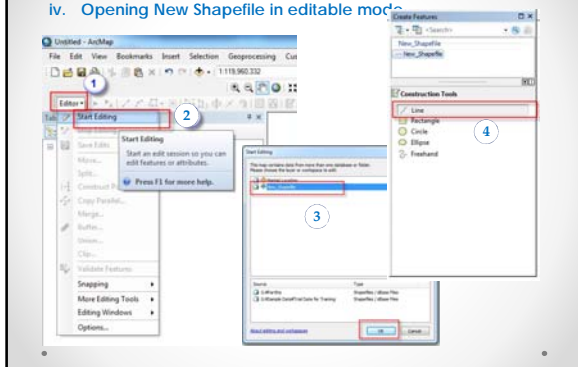
Creating New Features

iii. Adding Fields as you need



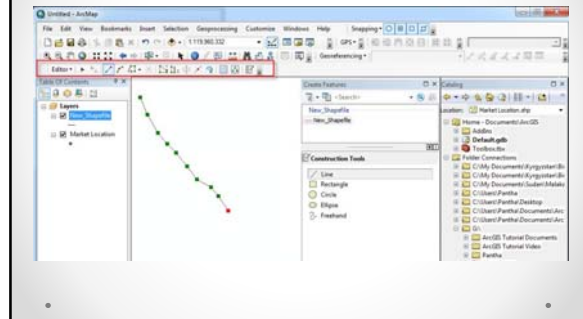
Creating New Features

iv. Opening New Shapefile in editable mode



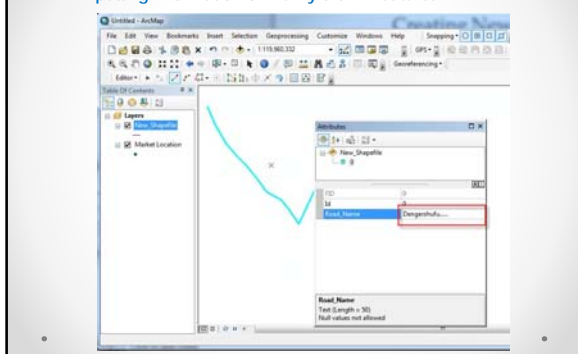
Creating New Features

v & vi. Setting up Environment and Draw Features



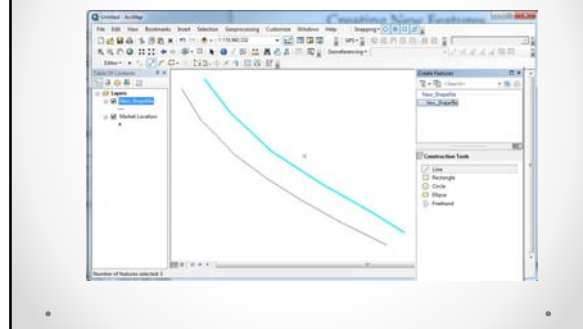
Creating New Features

vii. Inputting Information on newly drawn features



Creating New Features

viii. Saving New Shapefile (after editing)



Georeferencing and Digitization

A. Georeferencing

Georeferencing is a process to define the dataset such as scan image and photographs using known map coordinates and assigns it a coordinate system. This allows for the dataset to be viewed, queried, and analyzed with other geographic data.

Steps:

1. In ArcMap, add the layers residing in map coordinates, then add the raster dataset you want to georeference.
2. To display the Georeferencing toolbar, click the **Customize menu**, and click **Toolbars > Georeferencing**.
3. In the table of contents, right-click a **target layer (the referenced dataset)** and click **Zoom to Layer**. It may be helpful to set your Data Frame Properties Extent used by full extent command to your target area, so that the Zoom to Full Extent tool will automatically zoom to the full extent of the target area.

Georeferencing and Digitization

A. Georeferencing Steps (continued):

4. From the Georeferencing toolbar, click the **Layer drop-down arrow**, and click the raster layer you want to georeference.
5. Click the **Georeferencing drop-down menu** and click **Fit To Display**. This displays the raster dataset in the same area as the target layers.
6. Click the **Add Control Points** tool to add control points.
7. To add a link, click a known location on the raster dataset, and click a known location on the vector layer(s) in map coordinates (the referenced data). You can also add your links in the Magnification window or the Viewer window. If you are using polygons as your referenced layer, you can open the Effect Toolbar to adjust the transparency as you add your links.

Tip: Press ESC to remove a link while you're in the middle of creating it

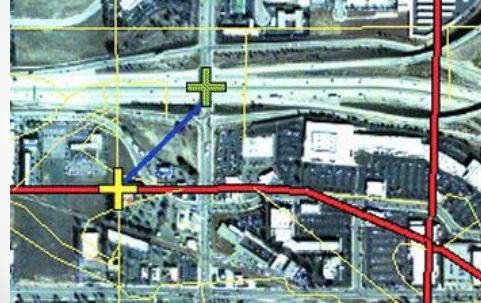
Georeferencing and Digitization

A. Georeferencing, Steps (Continued):

8. Add enough links for the type of transformation you will apply. You need a minimum of 3 links for a first-order polynomial or adjust transformation, 4 links for a projective transformation, 6 links for a second-order polynomial, and 10 links for a third-order polynomial or spline transformation.
9. Click the **View Link Table** button to evaluate the transformation. You can examine the residual error for each link and the RMS error. If you're satisfied with the registration, you can stop entering links.
10. You can delete an unwanted link from the Link Table dialog box.
11. Click the **Georeferencing** drop-down menu and click either **Update Georeferencing** or **Rectify**. Updating the georeferencing will save the transformation information with the raster and its auxiliary files. Rectifying will create a new file with the georeferencing information.

Georeferencing and Digitization

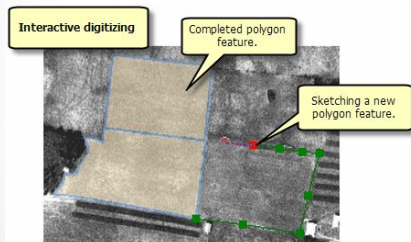
A. Georeferencing



Georeferencing and Digitization

B. Digitization

Digitization is a method to convert the raster data into digital vector data by overwriting on the georeferenced raster data.



Georeferencing and Digitization

Digitization / Create New Features

Basic Steps

- i. Create new shapefile (Point, Polyline, Polygon, ...)
- ii. Define Coordinate System for New Shapefile
- iii. Add Fields in attribute table as you need
- iv. Opening New Shapefile in editable mode
- v. Setting Editing Environment
- vi. Draw Features
- vii. Inputting Information on newly drawn features
- viii. Saving New Shapefile (after editing)

LAO PEOPLE'S DEMOCRATIC REPUBLIC
THE PROJECT TO ENHANCE THE CAPACITY OF VIENTIANE
CAPITAL STATE BUS ENTERPRISE

GIS TRAINING REPORT

SEPTEMBER 2014

Prepared by:

Bhoj Raj PANTHA

KATAHIRA & ENGINEERS INTERNATIONAL (KEI)

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1 INTRODUCTION

1.1 BACKGROUND

Japan International Cooperation Agency (hereinafter referred to as "JICA") has been implementing the project to enhance the capacity of Vientiane Capital State Bus Enterprise (hereinafter referred to as "the Project") since December 2011. The main objective of the Project is to improve the public bus services in Vientiane Capital including expansion of coverage of the public bus services in the Capital.

Enhancement of capacity of human resources of Vientiane Capital State Bus Enterprise (hereinafter referred to as "VCSBE") is one of the targeted outputs of the Project for improvement of the public bus services. Different kinds of activities are being implemented to enhance the capacity of VCSBE staff and staff of other concerned organizations such as Department of Transport (hereinafter referred to as "DOT") staff under Ministry of Public Work and Transport (hereinafter referred to as "MPWT"), Traffic Police, Department of Public Work and Transport (hereinafter referred to as "DPWT") staff of Vientiane Capital and other stakeholders such as professors and students of National University of Laos (hereinafter referred to as "NUOL") through workshop, seminar, technical training, etc. GIS training is one of the technical training which was planned for enhancing the capacity of staff of counterpart officials and officials from other concerned organizations for utilizing GIS for planning, operation and management of public transportation (hereinafter referred to as "the Public Bus Services"). The Public Bus Services in Vientiane capital has a long history however there is still need of systematic planning and operation of the Public Bus Services for the efficient, reliable, and informatics public bus services.

1.2 GEOGRAPHIC INFORMATION SYSTEM

A Geographic Information System (hereinafter referred to as "GIS") is a computer-based system which has various capabilities such as creating new data, data management, data storage, data modification, data analysis and data presentation in the form of map and table. GIS is an analytical and mapping software combined with a powerful database of map information. Map information stored in GIS can be visualized in the form of map, table, and chart. The information can also be printed and exported easily. All the information stored in GIS are geographically referenced with defined coordinate system so that each and every object can be located geographically. In the recent days, GIS has been emerging as a powerful tool for planning, analysis and management in the various fields such as infrastructure planning and management, urban and regional planning, landuse management, utility management, water resources, environmental science, agriculture, forestry, disaster management, meteorology, business marketing, health and crime control. The benefits of GIS are generally categorized into five basics categories; (i) better efficiency, (ii) better decision making tool, (iii) better communication using map and table, (iv) better data storage, and (v) data with geographic information.

2 TRAINING IMPLEMENTATION

2.1 TRAINING PROGRAM

In the various surveys and hearings from the public people, it is revealed that the public people are willing to ride the Public Bus Services if the buses are operated with more planned way such as fixed time table, location of bus stops and provision of para-transit from the residential area to the bus stops. Planning of bus stops by using land use, location of public facilities and population distribution is one of the most effective approaches. Since GIS can handle and analyze various geo-spatial data, the ultimate training goal is set to make trainees familiar in using GIS for bus stops planning. The general flowchart of bus stop planning which was used in the training is shown in Appendix-1. It is anticipated that the gained knowledge by the trainees will be disseminated to their co-workers in the future.

Since organization of this kind of GIS training (i.e. focusing in transportation planning) in MPWT is the first time, the basic GIS training plan has been prepared considering the capabilities of trainees in using GIS. The GIS training program is shown in **Table 2.1.1**.

Table 2.1.1 Training Program

		GIS Training		
Name of Training	:	GIS Training (ArcGIS) for Public Bus Service		
Objective	:	<ul style="list-style-type: none"> ▪ To make familiar with Basic Function of GIS for analysis and operation of software, and develop Medium Level human resources for using GIS for various planning, operation and management purpose (route planning, bus stop planning, accessibility analysis, making various maps for planning, operation and management of public transportation. 		
Date	:	September 10, 12, 17 and 19, 2014		
Time	:	9:00 ~ 12:00		
Venue	:	Computer Room, Faculty of Engineering, NUOL		
Training Method	:	Lecture and Practice on the Computers		
Trainer / Instructor	:	Dr. Bhoj Raj Pantha, JICA Project Team		
Targeted Trainee	:	(i) Officials of MPWT <ul style="list-style-type: none"> ▪ DPWT, Vientiane Capital ▪ Planning and Budget Division, DOT, MPWT ▪ Traffic Management Division, DOT, MPWT ▪ Land Transport Division, DOT, MPWT ▪ Vientiane Capital State Bus Enterprise ▪ Traffic Police, Vientiane Capital (ii) Others (National University of Laos)		
No. of Targeted Trainee	:	Max. Ten (10-15)		
Requirements	:	1. Basic computer operational knowledge 2. Hardware and Software: Hardware: Computers with Microsoft Windows environment Software: ArcGIS 10.X Version (Commercial or Trial Version) 3. Trainees shall affiliate in Transportation / road related division		
Training Items (Tentative)		1 st <table border="1" style="margin-left: 20px;"> <tr> <td>1. Overview of GIS</td> </tr> <tr> <td>2. ArcGIS Basics</td> </tr> </table>	1. Overview of GIS	2. ArcGIS Basics
1. Overview of GIS				
2. ArcGIS Basics				

** Training items are subject to revise considering the performance level of trainees	course	3. Understanding GIS Data	
		4. Coordinate Systems	
		5. Working with Arc Map	
	2nd course	6. Creating New Features, Digitization and Managing Map Layers	
		7. Using Coordinate Systems	
		8. Symbolizing, Layout, Labeling	
	3rd course	9. Data and Map Exporting and Printing	
		10. Data Conversion to/from GIS (Google Earth, AutoCAD,...)	
		11. Importing GPS Data	
		12. Geo-database	
	4th course	13. Editing GIS Data	
		14. Projection and Transformation of GIS Data	
		15. Performing Simple Analysis (using Geoprocessing Tools)	
		16. Preparing Base Map	
		17. Preparing Bus Route Map, Bus Stop	
		18. Working with Multiple Data Frames	
	Expected Output	:	Familiarization with GIS software, basic tools & functions, simple map creation, map saving & printing, simple analysis (Bus Stop Spacing), etc.

2.2 PARTICIPANTS (TRAINEES) OF THE TRAINING

JICA Project Team has requested to targeted organization to nominate the trainees who fulfilled the requirement of trainees as indicated in the training program. The trainees of GIS training are shown in **Table 2.2.1**. The number of participants from the NUOL is relatively large because the limit of maximum number was not set for NUOL since the training was conducted by using NUOL training facilities in free of cost. Both professors and students from NUOL were joined the training.

Table 2.2.1 Trainees of GIS Training

SN	Name	Organization	Department	Position
1	Mr. Khamsavang THEPPHOMMACHANH	VCSBE	Division of Planning and Budgeting	Officer
2	Mr. Thanongsy DETVONGSONE	VCSBE	City Bus Section	Chief
3	Mr. Somsanith HOUATHONGKHAM	DPWT	Traffic Management Department	Officer
4	Mr. Phimpho ZAMOUNTY	NUOL	Faculty of Engineering	Student
5	Mr. Khayphavanh OUDOMSACK	VCSBE	IT Section	IT Expert
6	Mr. Khamphone LUANGDY	Traffic Police	Vientiane Capital	Chief
7	Mr. Sisouphanh PHOMMANIVONG	NUOL	Faculty of Engineering	Lecturer
8	Mr. Phongsavanh INTHAVONG	NUOL	Transport	Lecturer
9	Mr. Baengchan PHOUMMECHAN	DPWT	Transport	Officer
10	Mr. Vannalate NORKEO	DPWT	Transport	Officer
11	Mr. Saythavone SIHANATH	DPWT	Transport	Officer
12	Mr. Poutthasay SIRISACK	DOT	Division of Planning and Budgeting	Technical officer
13	Mr. Vannitha KIMANIVONG	DPWT	Transport	Officer
14	Mr. Vernsone PHENGSOULITH	NUOL	Faculty of Engineering	Instructor
15	Mr. Khametin SUPHUNSY	NUOL	Faculty of Engineering	Student
16	Mr. Thongthep KEOSILA	NUOL	Faculty of Engineering	Student
17	Mr. Dethmany OANSOUVANH	DOT	Transport	Staff

2.3 MATERIALS AND METHODS OF THE TRAINING

2.3.1 Training Materials

Trial version of ArcGIS 10.2 which is fully functional for 60 days were downloaded from ESRI website and installed in twelve (12) desktop computers of NUOL computer room and three (3) laptop computers of the trainees for the purpose of the GIS training. Since most of the trainees have attended the GIS training first time, training materials were prepared covering from overview of GIS to simple analysis in GIS. Therefore, the training materials contain from very general to very specific information related to GIS. Presentation handouts particularly prepared for this GIS training, GIS User Manuals (in PDF), explanatory notes of some contents, etc. were provided to each trainee. The following training materials were used in the training;

- ArcGIS Software (trial version)
- Handouts prepared specifically for this GIS training
- Software user manual
- Explanatory notes (flowchart for analysis)
- Sample data for practicing in GIS

Furthermore, ArcGIS has “ArcGIS Desktop Help” within the installed GIS software and it is accessible even without the internet connection. ArcGIS Desk Help was also used when more detailed explanations were necessary.

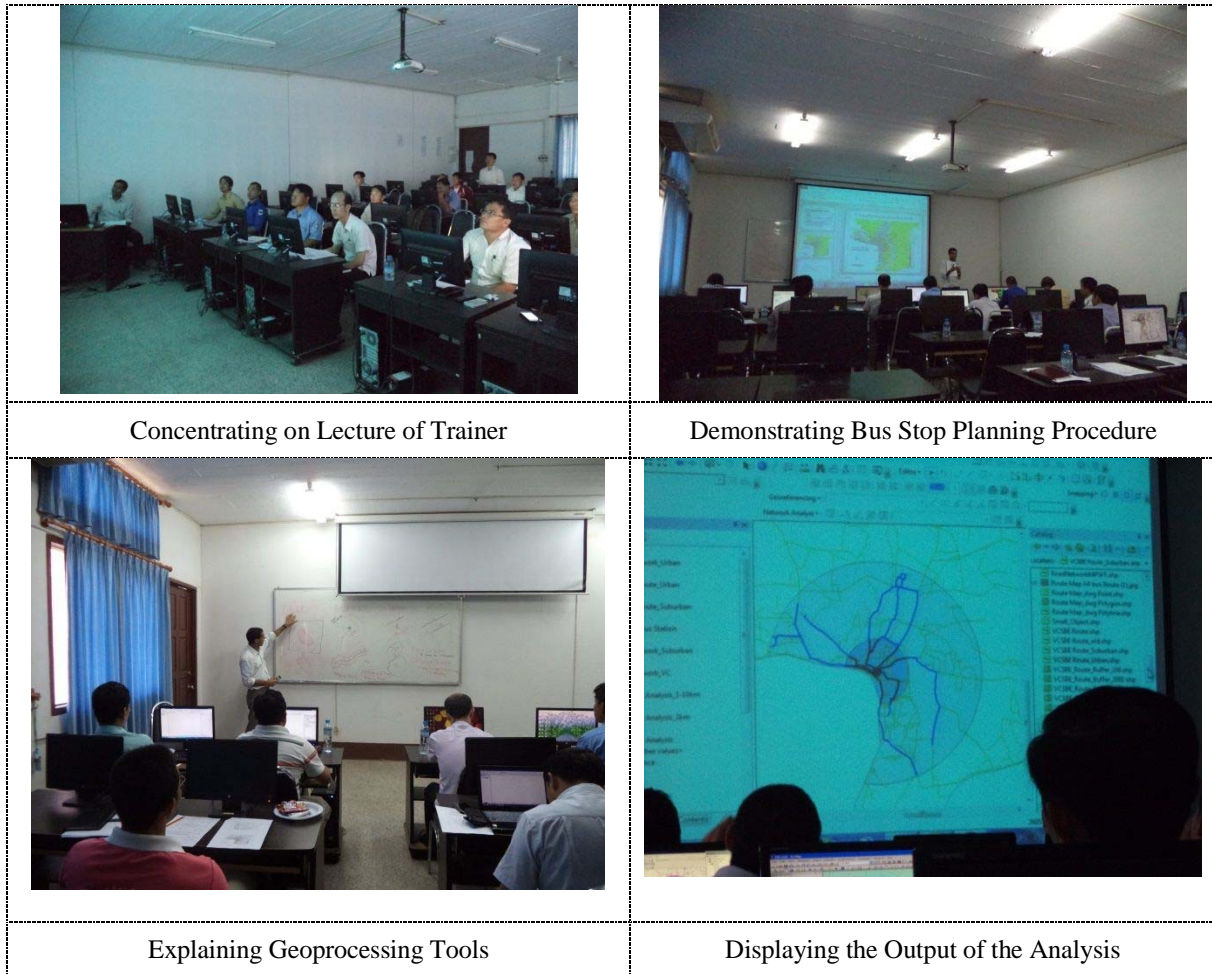
2.3.2 Training Method

The training was conducted from 9:00 to 12:00 on September 10, 12, 17 and 19, 2014. Trainees were taught by classroom type of lecture / presentation delivered by the trainer by using projector and whiteboard. After each lecture or explanation, trainees were practiced same topics on the computers using installed GIS software. The trainer showed the demonstration of each procedure of training item on the projector screen and trainees followed the same steps. Furthermore, trainer has guided the trainees to perform the work in GIS directly on their computer by visiting each trainee's desk.

As for the evaluation of effectiveness of the training, pre-training and post-training evaluations were conducted at the beginning of the training course (i.e. on 10 September, 2014) and at the end of the training course (i.e. on 19 September, 2014) respectively. Some of the training activities are shown in the below photographs.

Table 2.3.1 Glimpses of GIS Training Implementation

	
Opening of GIS Training Course by Team Leader	Encouraging Words to the Trainees by Team Leader
	
Lecturing	Assisting to Trainees



2.4 OUTCOMES OF THE TRAINING

2.4.1 Overall Evaluation

The contents of the GIS training courses have covered from beginner's level to medium level. Based on the observation of skills of the trainees on the last day of the training, it is understood that trainees know about operating basic functions of GIS. However, to be master in GIS, continuous practice is needed. Also, GIS exercises have been done by using the real data for solving relevant problems of transportation in the Vientiane Capital. Therefore, it is believed that trainees can use GIS for their regular office work in planning and management of transportation related work.

2.4.2 Certificate Award

After completing the GIS training course successfully, trainees were awarded by training certificates. The JICA Project team leader has awarded the certificate to the trainees.



Awarding Certificate by Project Team Leader

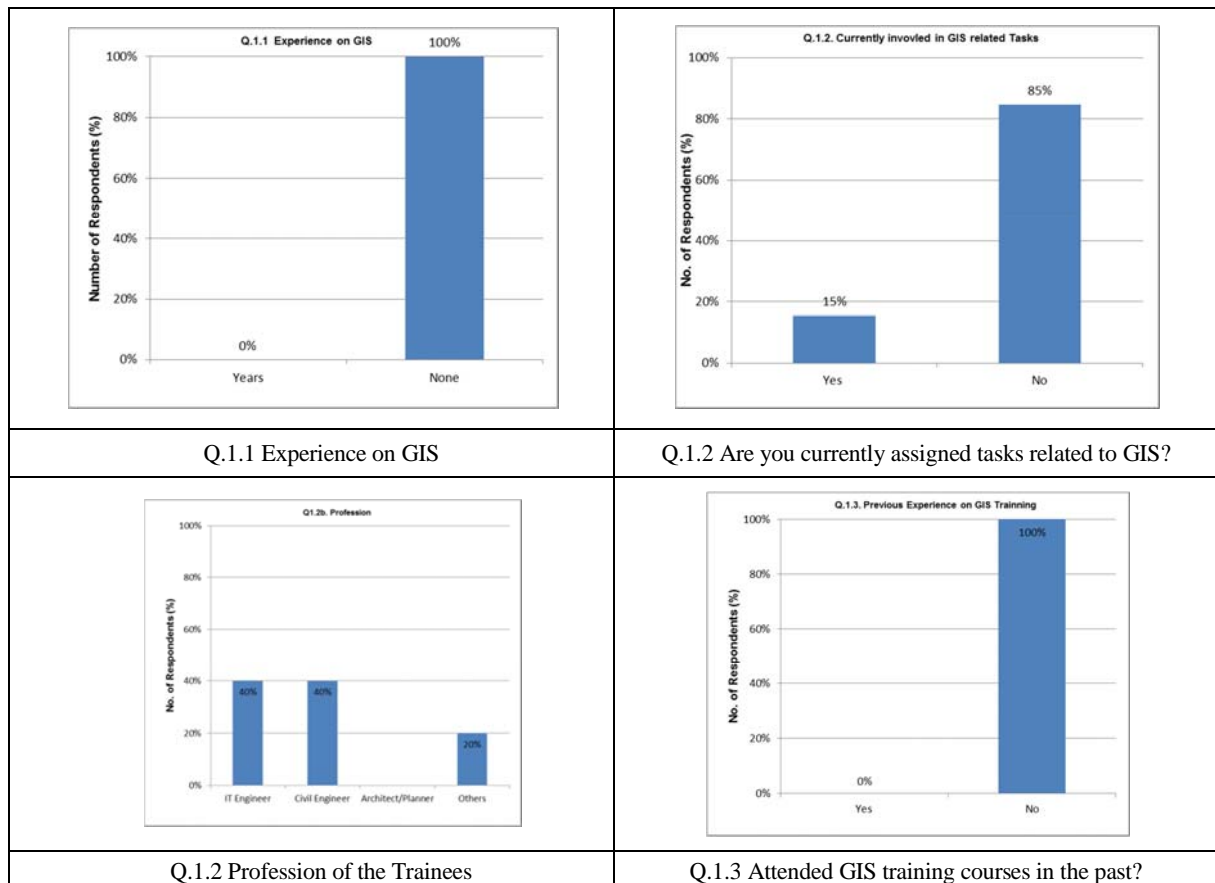
Cheerful Moment after the Hardworking

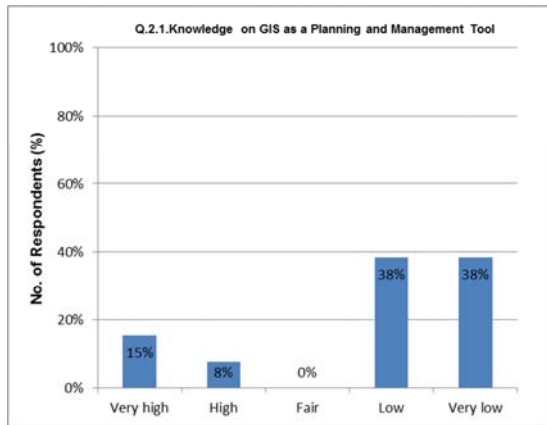
2.4.3 Self-Evaluation of Trainees

Questionnaire surveys were conducted at the beginning and end of the training. Trainees were evaluated by themselves before and after the training by conducting questionnaire survey.

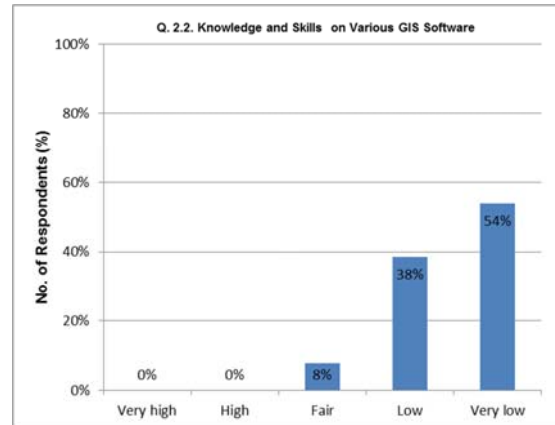
(1) Pre-Training Evaluation

Pre-training evaluation survey was conducted by asking sixteen (16) questions. The pre-training questionnaire survey results are summarized in **Figure 2.4.1**. The result of questionnaire survey reveals that only few trainees know about GIS and its capabilities in planning, analysis and management of various geospatial data before the training. Also, the survey result reveals that trainees have never attended GIS training in the past.

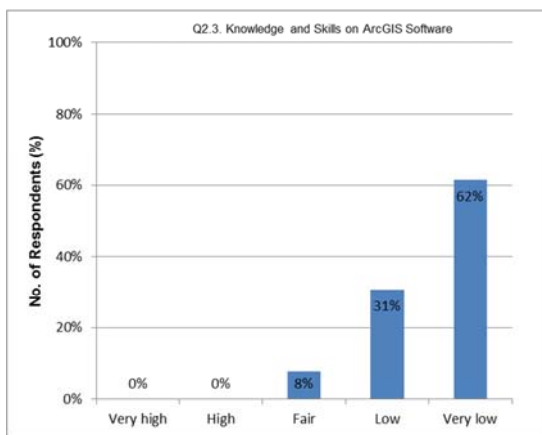




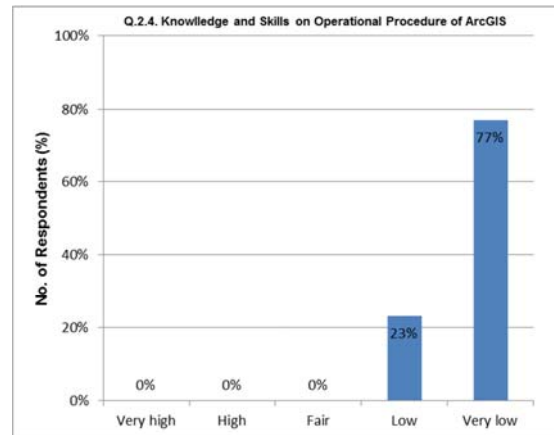
Q.2.1 Knowledge on GIS as a Planning & Management Tool



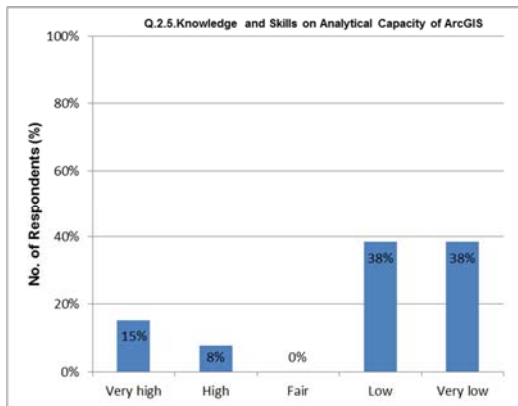
Q. 2.2 Knowledge and Skills on Various GIS Software



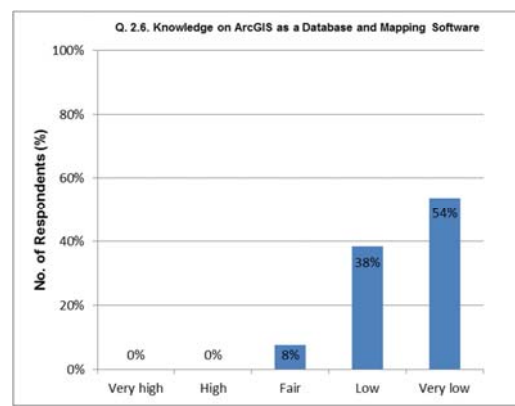
Q. 2.3 Knowledge and Skills on ArcGIS Software



Q. 2.4 Knowledge and Skills on Operational Procedure of ArcGIS



Q. 2.5 Knowledge and Skills on Analytical Capacity of ArcGIS



Q. 2.6 Knowledge on ArcGIS as a Database and Mapping Software

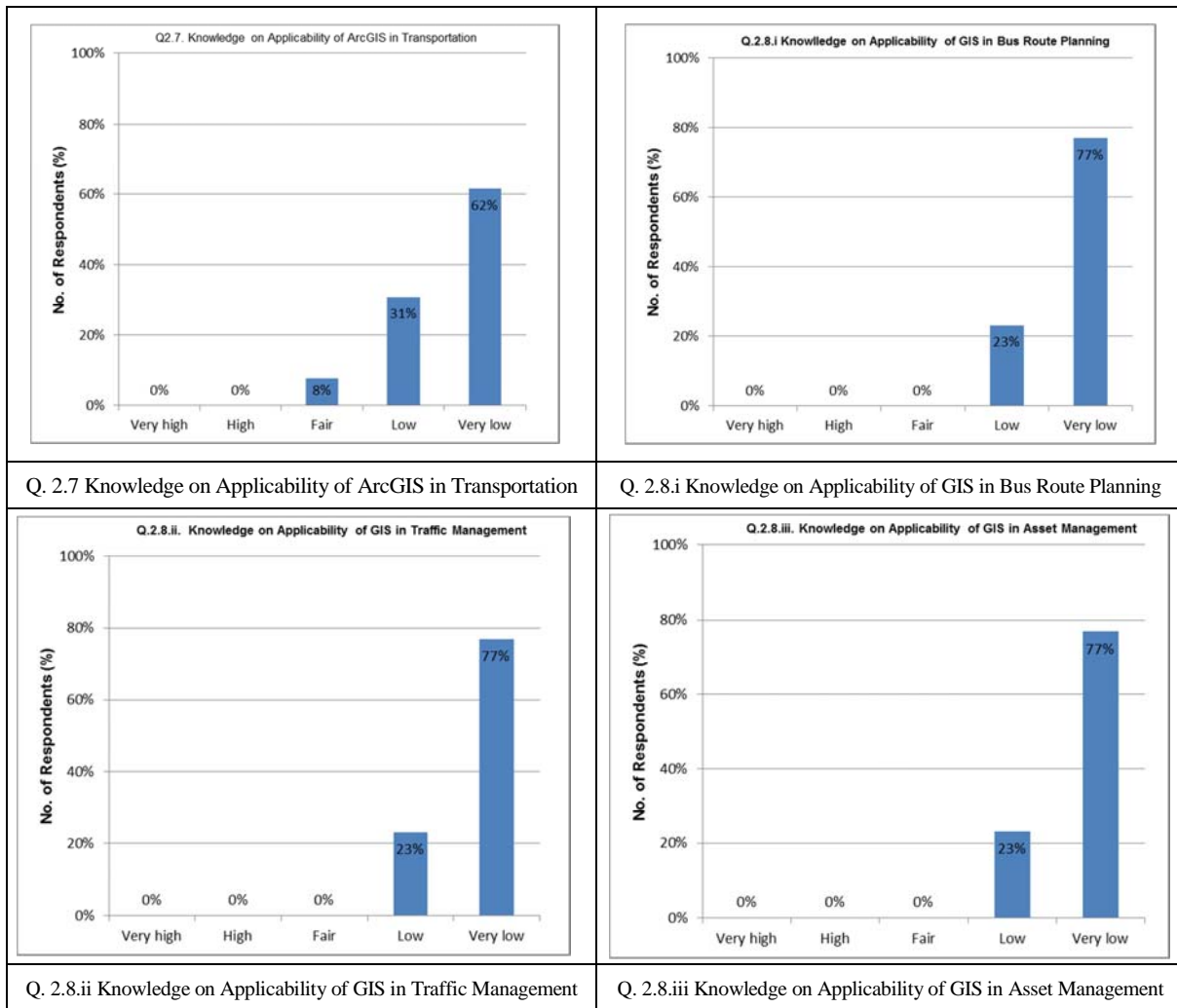
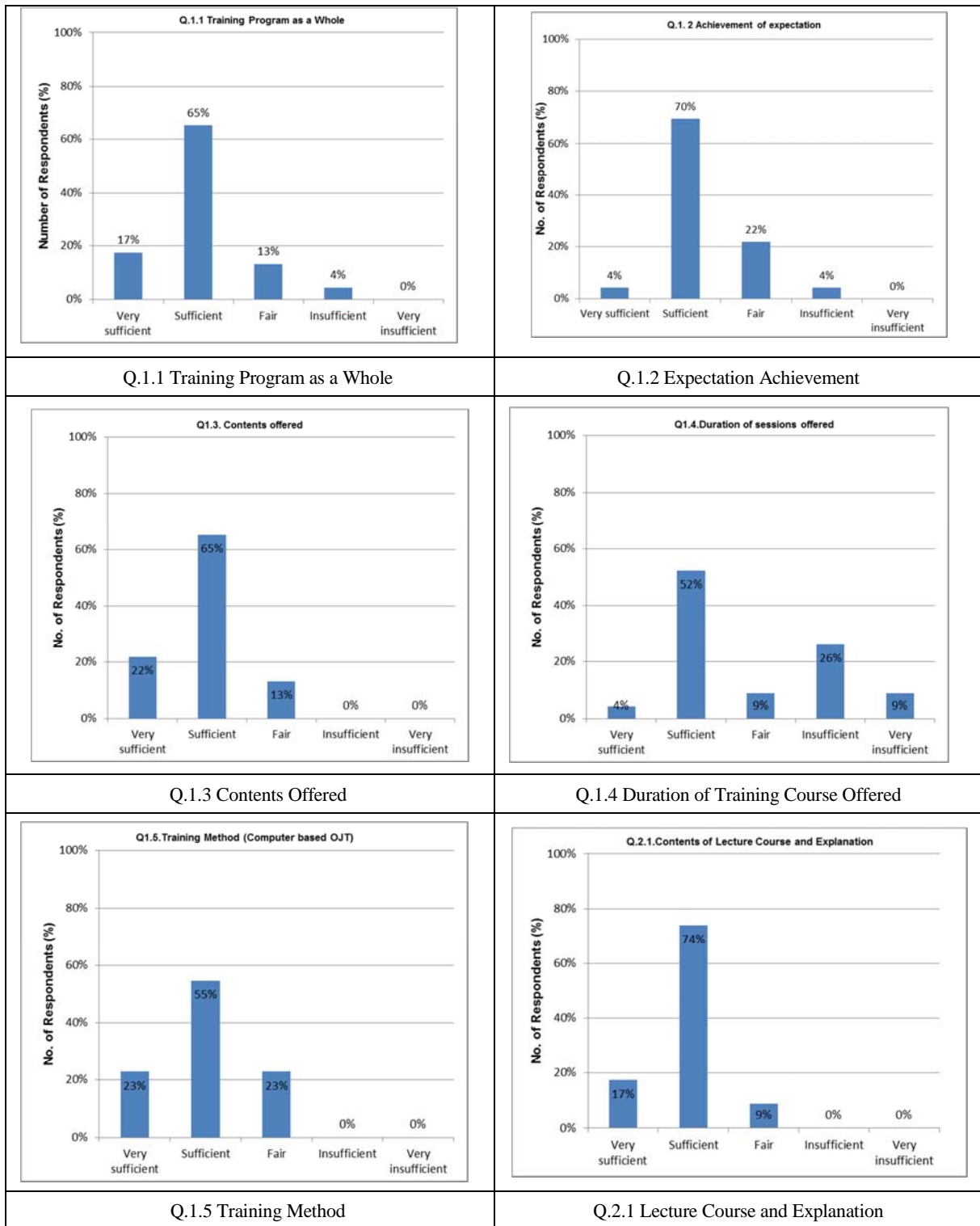
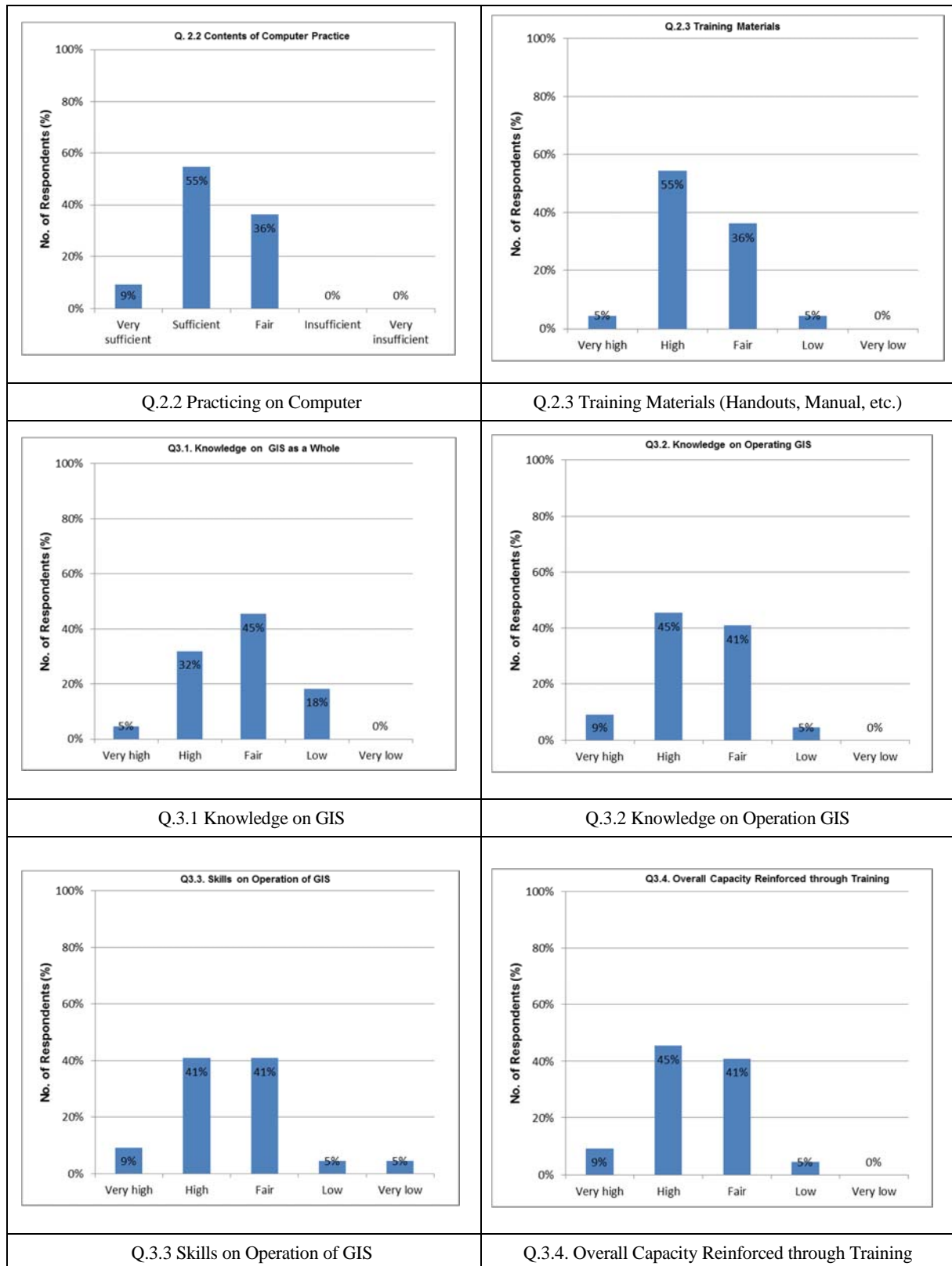


Figure 2.4.1 Results of Pre-Training Evaluation

(2) Post-Training Evaluation

The results of post-training evaluation survey are summarized in **Figure 2.4.2**. The result of the questionnaire survey reveals that trainees are satisfied (>70% of the trainees) with the training program, achievement of the training, training course, duration of course, contents of the training and training method. Upon completion of the training courses, the trainees have improved their knowledge and skills on GIS significantly which can be compared from the results of pre-training and post-training evaluations. Another interesting finding of the questionnaire survey is the increase of number of responses as “applicable / related to the assigned task” of the question about “the task currently assigned and applicability of GIS” after the training; which implies that the trainees understood the capability of GIS after the training and believed that they can use GIS for their office work. Also, all trainees are willing to participate similar training either as follow-up training or next-level of this training.





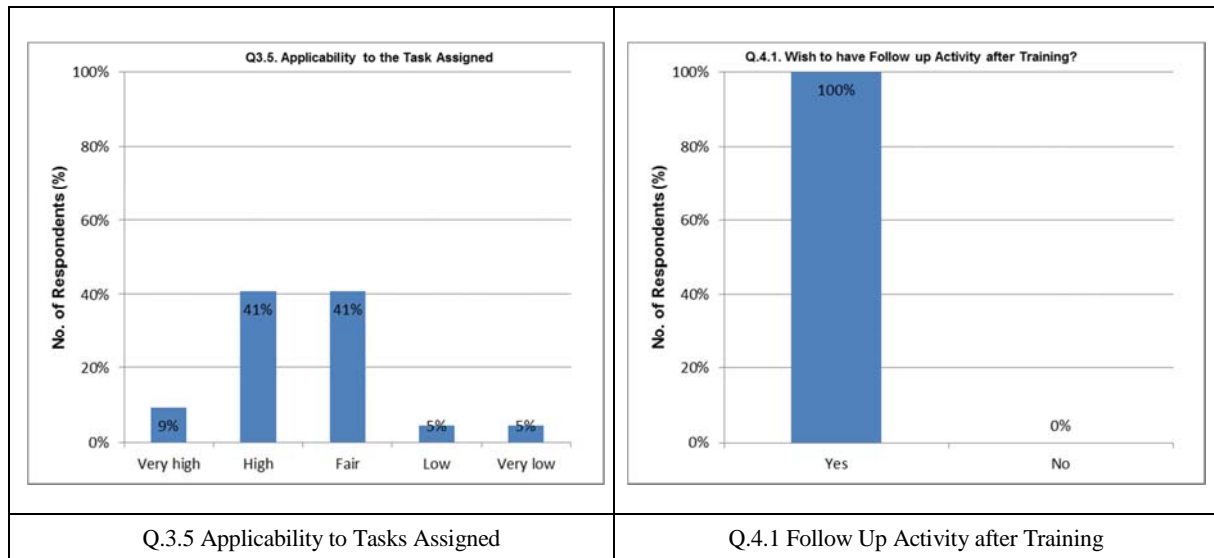


Figure 2.4.2 Results of Post-Training Evaluation

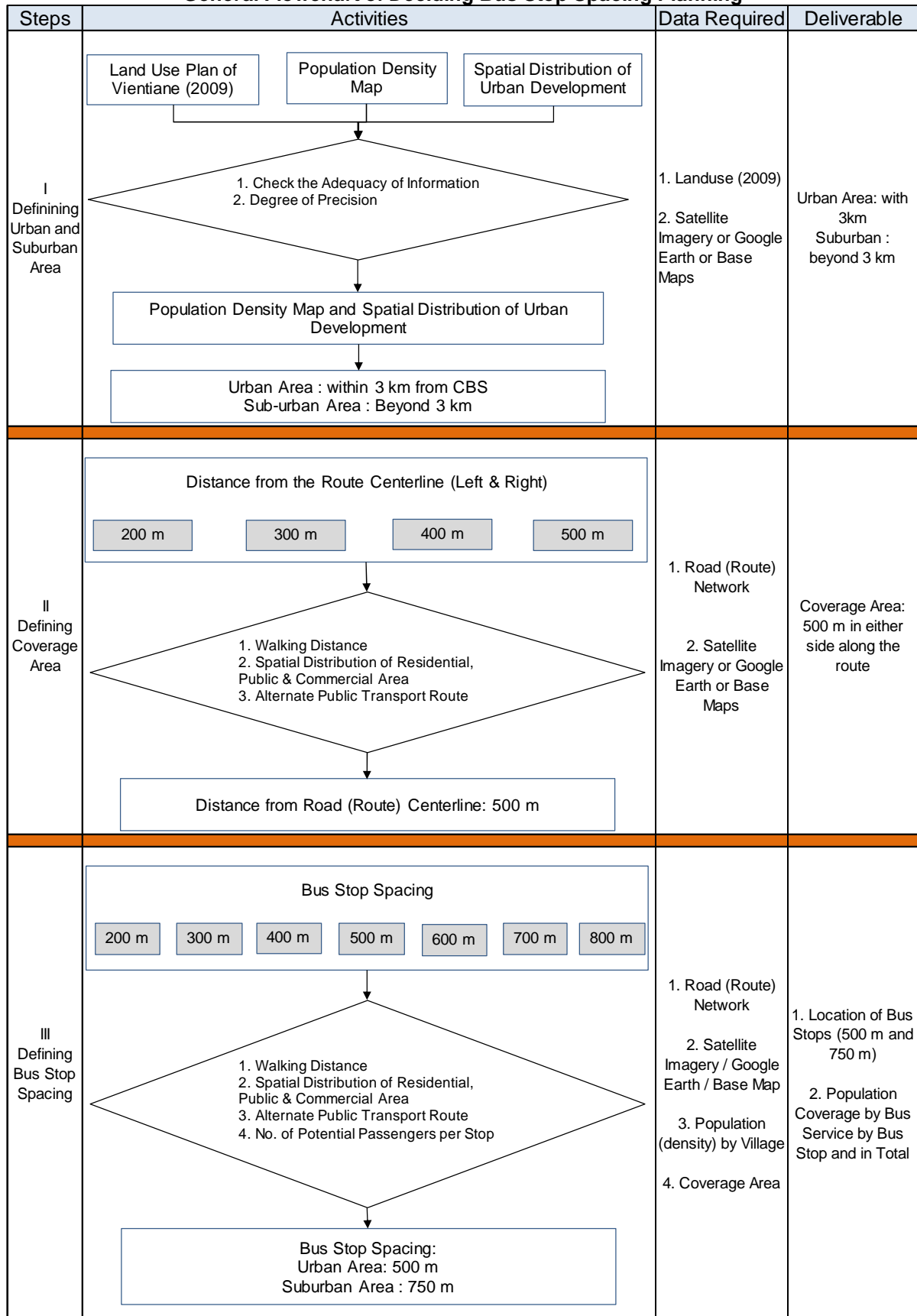
3 CONCLUSIONS AND RECOMMENDATIONS

Based on the observation during and after the implementation of GIS training the following conclusions and recommendations were made.

- (i) The knowledge and skills of the trainees have been improved significantly.
- (ii) The working speed of trainees during computer practice is relatively high.
- (iii) Trainees are very much enthusiastic and motivated in learning GIS.
- (iv) Continuous practice is required for further development of GIS knowledge. Therefore, it is highly recommended to keep on practicing the GIS software.
- (v) As 100% of respondents are willing to attend follow-up training in the future, it is highly recommended to provide such training to them to foster their motivation and enthusiasm of GIS learning.

Appendix-1

General Flowchart of Deciding Bus Stop Spacing Planning



App4 Workshop Materials

Act3-1 Review and Establish a Proper Fare Structure

No.	Date	Seminar / Workshop	Page
1	19 Feb, 2013	Concept of financial support for the Public Transport Company	App4-350
2	22 Mar, 2013	Types of financial support	App4-357
3	29 Mar, 2013	Examples of foreign countries and impacts of subsidies	App4-367
4	8 Apr, 2013	Summary of discussion and confirmation of application for tax concession	-
5	13Nov, 2014	Confirm the progress and further process of tax concession	App4-377

1st Working Group for financial support of VCSBE

Date: 19th Feb, 2013, Tuesday, 9:00am

Place: VCSBE

Agenda

1. Opening remarks
 - Ministry of Public Works and Transportation
 - Department of Public Works and Transportation, VC
 - VCSBE
 - Toshinori TODA (JICA Consultant, Chief Advisor)
2. Select a chair person of Working Group
3. Information sharing “bus company management and financial support”
Reported by Natsuki SHIMEGI and Pathana INTHALANGSY (JICA project team)
 - Purpose of 1st Working Group
 - International trend of bus company management
 - Three ways of financial aid to public transport
 - Financial support status in other countries
4. Financial situation of VCSBE
5. Confirm the schedule of WG
6. Closing remarks

Lao People's Democratic Republic

Peace Independence Democracy Unity Prosperity

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Vientiane Capital State Bus Enterprise

Date: 19 February 2013

Meeting Record

In Tuesday morning, date on 19 February 2013 at 9: 00 AM at Vientiane Capital State Bus Enterprise's Meeting Room under the Corporate Chair by:

- Mr. Khamphoune TEMERATH, Director of Vientiane Capital State Bus Enterprise VCSBE;
- Mr. Ounneua SILIVONG, Deputy Director of Department of Public Works and Transportation, Vientiane Capital;
- Dr. Bounta ONNAVONG, Director Division of Planning and Budgeting/Department of Transport /Ministry of Public Works and Transportation;
- Toshinori TODA, Team Leader of JICA Expert Consultant;
- Other Participants (As per lists of participants as per attachment).

The purpose of this meeting is to organize the person to be in chart of Working Committee (Working Group) to discuss of Financial Support Policy to Vientiane Capital State Bus Enterprise.

After the President of The Meeting had proposed of the Meeting Agenda, Mr. Natsuki SHIMEGI, JICA Expert, Certified Public Accountant/ Cooperate Management /Finance had presented through some experiences and lessons, which recommended to the session.

In order to provide of public services by increasing the capacity of public transport efficiency, throughout and quickly to meet the public demands, which has to require The Government Policy to consider about subsidy, which in many countries has been already implemented such as:

- In Thailand: The Government Subsidy for fuel is provided in whole country, and subsidy for operation is provided to the public bus company; However, the carry forwarded loss of public bus company has been increasing.
- In Singapore: The privatization has been highly progressed, and the subsidy for the capital assets, such as bus body and infrastructure for the contactless smartcard system, is provided. Therefore, the main work of the bus company is only operation and maintenance.
- In Japan: The majority of people are using public transport because it can be integrated conveniently. though, the rate of percentage of subsidy in revenue is low in Tokyo, the average of 9 cities is 17 percentages in the major city.

After that JICA Expert also propose three categories for Financial Support to Vientiane Capital State Bus Enterprise.

1. Tax concession

*The JICA Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise
(JICA PEC-VCSBE)*

- Tax concession means implementation of the Tax reduction or Tax exemption to a company. Cash payment from Government is not necessary. The target Taxations here are VAT, Profit Tax, and Minimum Profit Tax.
2. Subsidies
 - Subsidy means that the provision of economic benefits for the company or some companies met by the certain criteria by government.
 3. Funding
 - Funding means financial aid as grants or loans, by making a large amount of aid for the purchase of large number of busses or related equipment at one time.

After that meeting participants had research, discussion, and agreed as follows:

The Meeting agreed to establish a Working Committee (Working Group) to research policy to assist to Vientiane Capital State Bus Enterprise, which include:

1. Mr. Thong hip SIVIXAY, Chief of Cabinet of Business Promotion Office of Vientiane Capital
Chairman
2. 1 Representative from Department of Public Works and Transportation, Vientiane Capital;
3. 1 Representative from Business Promotion Office, The Prime Minister Office;
4. 1 Representative from Department of Transport/Ministry of Public Works and Transportation;
5. 1 Representative from Financial Management Department of Public Enterprises, Financial Management of Department Vientiane Capital;
6. 1 Representative from Tax Department of Vientiane Capital;
7. 1 Representative from Vientiane Capital Office;
8. 1 Representative from Traffic Police;
9. Representative from Vientiane Capital State Bus Enterprise;
10. Representative from JICA Expert Team of The Project to Enhance The Capacity of Vientiane Capital State Bus Enterprise.

The Meeting agreed to assign Mr. Thongthip SIVIXAY to draft The Agreement to propose to The Mayor of Vientiane Capital to be the authority for an approval and assign Mr. Khamphoune TEMERATH, Director of Vientiane Capital State Bus Enterprise VCSBE to be coordinator to request the list of related parties and also responsible with that Working Committee.

The Meeting discussion was successful for researching of such policies of Public Transport. The meeting was closed at 11:00 am.

Chairman

Mr. Khamphoune TEMERATH, Director of VCSBE

Meeting record by

Duangta SUDKHAMHUK

Concept of financial support for the Public Transportation Company

Corporate management/ Finance
Natsuki SHIMEGI

Translator
Pathana INTHALANGSY

0. Purpose of 1st Working Group

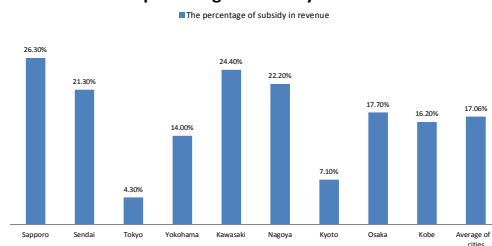
- The main purpose of Today's Working Group is to share information for the financial support to VCSBE as below.
 - A) International trend of bus company management
 - B) Types of financial support to public company
 - C) Status of other countries
 - D) Difficulty to operate an Urban Bus Service in Vientiane Capital
- The members and whole schedule of WG should be decided and fixed as a conclusion.

1. International trend of bus company management

- Environment of Bus company management in Japan.
 - Private or Public?
 - Private company is majority. (228/254=90%)
 - Type of operations
 - a. Line bus (Urban, Inter urban)
 - b. Chartered (Leasing) bus.
 - Making profit or loss?
 - Many of them make loss.
 - Public companies⇒ 1/26 (4%) of companies make net profit
 - Private companies⇒ 67/228 (29%) of companies make net profit
 - What kind of financial support exist?
 - Subsidy to maintain local line
 - Subsidy to introduce low emission (CNG, Hybrid)bus
 - Subsidy to enhance EMS (Eco drive and Management system) and drive recorder
 - Subsidy to introduce non-step bus
 - And so on...
 - How many percent of revenue are subsidy or other Financial support?
 - See next page.

1. International trend of bus company management

The percentage of subsidy in revenue



2. Three ways of financial aid to public transport

- Financial aid to public transport from Government can be classified as three categories.
 - a. Tax concession
Tax concession means implementation of the Tax reduction or Tax exemption to a company. Cash payment from Government is not necessary. The target Taxations here are VAT, Profit Tax, and Minimum Profit Tax.
 - b. Subsidies
Subsidy means that the provision of economic benefits for the company or some companies met by the certain criteria by government.
 - c. Funding
Funding means financial aid as grants or loans, by making a large amount of aid for the purchase of large number of busses or related equipment at one time.

3. Financial support status in other countries

- Other major ASEAN Countries
 - Current status of subsidies to bus company and fuel subsidy in whole country is shown as the Appendix-1.
 - It is recognized that tax concession or disburse as subsidy are provided in all countries.
- In Thailand,
 - Subsidy for fuel is provided in whole country, and subsidy for operation is provided to the public bus company
 - The carry forwarded loss of public bus company has been increasing. This situation shows the difficulty of the management of the bus company which provides only bus operation service.
- In Singapore
 - The privatization has been highly progressed, and the subsidy for the capital assets, such as bus body and infrastructure for the contactless smartcard system, is provided.
 - Main work of the bus company is only operation and maintenance.

4. Difficulty to operate an Urban Bus Service in Vientiane Capital

- Private enterprises from Korea and China have attempted to start urban transportation services in Vientiane in the past.
- However, each enterprise was either forced to completely shut down or significantly cut back on operations within a few years of launching its services.
- The fact that the enterprises had to abandon operations could be an indicator of the inherent difficulty of sustaining a business in Vientiane.
- We understand that Bus Operation business itself contains difficulty in all countries. However, respective governments recognize the importance of bus service as the foot of the citizens to achieve civil minimum, and support it by many ways.

Schedule of working group for Financial Support of VCSBE

The Working Group (hereinafter referred to as WG) has set up in 2nd JCC Meeting of “The Project Enhance the Capacity of Vientiane Capital State Bus Enterprise” on 12. Feb, 2013. Based on this determination, working group meeting will be held in accordance with following schedule. Though topics are also described, it can be change in 1st WG or subsequent WG.

1st WG Date: 19. Feb, Venue: VCSBE

- Sharing information from the preliminary survey
 - ▶ Type of financial support
 - ▶ Study other ASEAN countries’ subsidy
- Discussion
- Make tentative conclusion and recommendation

2nd WG Date: 27. Feb, Venue: VCSBE

- Sharing information from the preliminary survey
 - ▶ Topic “Tax concession”
- Discussion
- Make tentative conclusion and recommendation

3rd WG Date: 6. Mar, Venue: VCSBE

- Sharing information from the preliminary survey
 - ▶ Topic “Subsidy”
- Discussion
- Make tentative conclusion and recommendation

4th WG Date: 13. Mar, Venue: VCSBE

- Sharing information from the preliminary survey
 - ▶ Topic “Funding”
- Discussion
- Make tentative conclusion and recommendation

5th WG Date: 20.Mar, Venue: VCSBE

- Summarize the Conclusions and Recommendations in last 4 WG
- Discussion
- Make overall conclusion and recommendation

After 5th WG 20. Mar – 11. Apr

- Finalize a report

Photos



The Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise

Final Meeting Records of 2nd Working Group for Financial Support of VCSBE

Time/Date: Thursday, 22 March, 2012, 8:45 - 11:00
 Place: VCSBE Meeting Room
 Objectives: 2nd Working Group for Financial Support of VCSBE
 Participants:

VCSBE	Mr. Khamphoune TEMERATH, Director of VCSBE Mr. Bounthan SENSACKDAVONG, Chief of Finance Department of VCSBE Mr. Douangta SOUTHKHAMHUK, Administrative Officer of VCSBE
The Prime Minister Office	Mr. Phonesavanh INTHALANGSY, Chief of Management and Business Promotion Department of Public Enterprises, Business Promotion Office, The Prime Minister Office
Business Promotion Office Vientiane Capital	Mr. Thongthip SIVIXAY, Chief of Cabinet of Business Promotion Office of Vientiane Capital Mr. Bounkham KHOUNPASEURT, Technical Officer Business Promotion Office of Vientiane Capital
DoT/MPWT	Mr. Puthaxay SIRISACK, Technical Officer Division of Planning and Budgeting/Department of Transport /Ministry of Public Works and Transportation
DPWTVC	Mr. Thongphoun SOUNTHAVONG, Chief of Management and Transport Division, Department of Transport/Ministry of Public Works and Transportation
Tax Department Vientiane Capital	Mr. Khamta ORLADOM, Chief of Cabinet of Financial Management Department of Public Enterprises, Financial Management of Department Vientiane Capital Mr. SysaNgouane VONGHALATH, Deputy Chief of Administration Office Tax Department of Vientiane Capital
Traffic Department Vientiane Capital	Police Major General Bounmark SOUNDALAI, Chief of Propaganda Division, Traffic Department of Vientiane Capital
JICA Project Team	Mr. KUNIMASA Yoshiro, Vice Team Leader/Bus Service/Human Resource Development Mr. SHIMEGI Natsuki, Corporate Management/ Accounting Ms. Pathana INTHALANGSY, Project Interpreter English Ms. Phayakala CHANDENG, Project Secretary Mr. Chanthala VORRASING, Project Engineer

The Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise

Speaker	Content	Action
Mr. Thongthip SIVIXAY	Opening Remark by Mr. Thongthip SIVIXAY, Chief of Cabinet of Business Promotion Office of Vientiane Capital	
Mr. Khamphoun TEMERATH	Mr. Khamphoun TEMERATH, Director of VCSBE proposed briefly about traffic activities conditions of Vientiane Capital State Bus Enterprise to the Meeting and the necessary why the Working Group have to research Policy Plan to those people who has authority to decide to consider about the Financial Support or Subsidy to Vientiane Capital State Bus Enterprise to sustainable of Public Services Transportation.	
Mr. SHIMEGI Natsuki	Mr. Natsuki SHIMEGI: Certified Public Accountant/ Cooperate management / Finance proposed about the Difficulty of public bus management such as: review the 1 st Working Group discussion, share information and explanation regarding the 3 types of Financial Support as below such as: Tax concession, Subsidy, and Funding. However, he would like the Working Group Committee Members to consider and focus on the Tax concession as priority. Also, he explained the transition of Tax payment by main Tax items such as: Taxation on revenue, Taxation on expense, and Taxation on the profit. Moreover, he introduced about the advantages and disadvantages of each types of Financial Support to Working Group Committee Members to have ideas to support what type of Financial Support that Working Group Committee Members need to focus on in the next Working Group Meeting. (As per Conference Materials attached)	
Mr. Thongthip SIVIXAY	Mr. Thongthip SIVIXAY, Chief of Cabinet of Business Promotion Office of Vientiane Capital advised that VCSBE must identify both incomes and expenditure in details regarding to the Profit and Loss Statement and give some supporting reasons if Profit or Loss from which year and how. Especially, if Japanese Experts able to get Data Information whether figures or percentage in details of each types of Subsidy regarding to Tax Concession, Subsidy, and Funding among the ASEAN Countries in order for the Working Group Committee to have an idea to start the simplify concept.	
Mr. SysaNgouane VONGHALATH	Mr. SysaNgouane VONGHALATH, Deputy Chief of Administration Office Tax Department of Vientiane Capital commented to research about the possibility such as: <ul style="list-style-type: none"> ▪ Tax Concession: regarding to Value Added Tax 10% or Business Turnover Tax (Before 5% Charged) is consumer VAT. “The value-added tax is an indirect tax that is collected on the proportion of value added to goods and services occurring in all 	

The Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise

	<p>processes, ranging from production, distribution, service supply to consumption; and is [also] collected on the value of goods and services imported into the Lao PDR”. So this mean VCSBE paid VAT on behalf of consumers. However, regarding to Tax Law Decree 03, which the high authority can write report in order to propose to National Assembly to adjust Law as appropriate.</p> <ul style="list-style-type: none"> ▪ Subsidy and Funding are supported by the government so as the Japanese Experts mentioned in the earliest of this Meeting that would be very difficult for VCSBE to get additional Grant Aid. ▪ However, the Working Group Committee requested to Japanese Expert to give some examples from those countries who had experiences and successful to operate Public Bus Transportation in order for VCSBE to learn some knowledge to adapt it as VCSBE Strategy. 	
<p style="text-align: center;">Mr. Khamphoun TEMERATH</p>	<p>The Working Group has to research the Method. Especially, how to base on the study on Public Bus Services in other countries “the distribution of proportion Subsidy” in order to propose to high authority to consider on this matter.</p> <p>Example in Thailand or Vietnam how much the proportion of Subsidy they received, type fuel or cash. Etc...</p>	
<p style="text-align: center;">Mr. Phonesavanh INTHALANGSY</p>	<p>Mr. Phonesavanh INTHALANGSY, Chief of Management and Business Promotion Department of Public Enterprises, Business Promotion Office, The Prime Minister Office proposed this was the 1st time for him to attend the Meeting. However, he mentioned that VCSBE is also served to the Public Services, which we can propose the government to consider the Policy as National Strategy to help VCSBE as Water Supply State Enterprise of Vientiane Capital and Lao State Fuel, etc...</p> <ul style="list-style-type: none"> ▪ He will consider and have to review more and more regulations is related to Law, which is considering about time, which can’t adopt one of three types during the day because all Committee Members need to research regarding to Law and regulation for exemption, we need to provide details of procedure due to VCSBE is State Enterprise, which we can’t treat only to VCSBE so we need to be careful consider related to Tax Law and State Law regard to other State Enterprise too. ▪ Moreover, he suggested to lists out some issues in order to put in to the plan schedule and discuss in the next Meeting and draft of National Strategy for the State Enterprise, which articles will need to improve the State Law, he can also propose in to the draft of Law in order to propose to National Assembly to amend the Law. 	
<p style="text-align: center;">Mr. Khamphoun TEMERATH</p>	<p>The Public Bus Transportation should be there when they will propose to amend the Law regarding to this matter.</p>	

<p>Mr. Khamta ORLADOM</p>	<p>Mr. Khamta ORLADOM, Chief of Cabinet of Financial Management Department of Public Enterprises, Financial Management of Department Vientiane Capital had agreed that they should find the way to help VCSBE to survive and to extend the Public service to all other areas.</p> <ul style="list-style-type: none"> ▪ He mentioned about Mr. Khamphoune’s explanations to the cause of Loss are mostly from fuel cost increased and tax deposited. So regarding to the fuel cost increased, we may not able to help to solve this issue. On the other hand, Tax Law is approved by National Assembly, but it also has the way to find out how to propose to amend the Law. ▪ Moreover, he had agreed with Mr. SysaNgouane VONGHALATH that VAT have to pay by consumers, VCSBE was only has the responsibility to collect them from Bus Passengers Users and deposit them to the Government. Also, Personal Income Tax is paid from VCSBE Employee who has an income over 1 million Kip has to pay PAYE Tax. Also, Profit Tax when the VCSBE gained profit or even Minimum Profit Tax when the VCSBE lost. So why State Enterprise or Private Enterprise have to pay Profit Tax or Minimum Profit Tax 1% regarding to not accuracy booked of accounts that’s why the Government has Instructed to pay Minimum Tax on Profit 1% so that after the auditor had checked their accounts and they didn’t found any suspect ion, they can refund of this by end of the year when they submit they Accounting Report to Tax Division of MOF. ▪ Regarding to Funding, VCSBE also received Funding by the Government such as: the Government and Japanese People Grant Aid the New Buses to the Government of Lao and the Government of Lao as MPWT received them and MPWT handed over them to Vientiane Capital and Vientiane Capital handed over them VCSBE to operate as Public Bus Transportation. However, if Funding by Private Financial Institute as loan, which MOF can also certify as “ Bank Guarantees” ▪ Regarding to improve of Public Services, the related authority have to consider how to reduce of traffic congestion and traffic jam so regard to this reason can propose to the Government and the Government can propose to National Assembly to adjust the Law. ▪ Also, if the Government can consider to review of Price Mechanism and approve the VAT Exemption to VCSBE Ex: Fare is 5,000 Kip Exempt VAT 10% fare should be 4,500 Kip and VAT 500 Kip VCSBE collect and pay to the Tax Division of MOF. 	
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Mr. Khamphoun TEMERATH	Regarding to the request to review of Price Mechanism, which the Japanese Expert recommend to review of the procedure that three authority should be involved such as: MPWT, DPWTVTC, and VCSBE in order to discuss about the Price Mechanism in more details.	
Mr. Phonesavanh INTHALANGSY	Mr. Phonesavanh INTHALANGSY question to JICA Expert Team please advises more about is there any condition to get additional Grant Aid from The Japanese Government and People??? In order to draft of VCSBE long-term Strategy Plan, any idea to research the experience about the statistic for the Traffic Count Data during peak hour in order to for them to use these Data to support in the report. Also, please remind that nowadays, VCSBE has no Bus Terminal to operate Inter-Province Buses; this is the expense that VCSBE has to pay commission fee for bus waiting space at the Private Enterprise's area.	
Mr. Thongthip SIVIXAY	Closing remark Mr. Thongthip SIVIXAY had concluded for this Meeting and propose to the Committee to research some Data for the next week schedule such as: <ol style="list-style-type: none"> 1. Request the JICA Project Experts continue to provide Public Services Transportation Data from other countries. Especially, from ASEAN Countries and propose to the Working Group Committee Members to consider from Data Information and Figure in order to report to those people who has authority to decide. 2. To the related authorities please research about related regulation and Law draft and briefly in details in term of Statistic Data and Information that related to three types of Subsidy. 3. Try to make it short much it can in order to have some times to review during the Japanese Experts here. 4. Schedule about the Working Group working in details should be prepared by the Secretariat Committee to research and sent to other Committee Members before the 3rd Working Group. 5. For the amend of The Mayor of Vientiane Capital Agreement to remove No: 11. Mr. TODA Toshinori, Team Leader of JICA Expert of The Project to Enhance Capacity of Vientiane Capital State Bus Enterprise from Committee List, but remains and recognize as the Project Consultant. So this agreement will be sent to The Mayor of Vientiane Capital Office to amend ASAP. 	

- The conference was adjourned at 11:00 AM.

Registration

Meeting Topic: 2nd Working Group Meeting by Natsuki SHIMEGI

Place: VCSBE Meeting Room

Date: Friday, March 22 2013

Time: 09:00 - 11:00

ລ/ດ No.	ຊື່ ແລະ ນາມສະກຸນ Name & Surname	ຕຳແໜ່ງ Position	ມາຈາກພາກສ່ວນ Organization	ເບີໂທລະສັບມືຖື Telephone	ທີ່ຢູ່ອີເມວ Email Address	ລາຍເຊັນ Signature
1	Mr. KUNIMASA Yoshiro	Vice Team Leader/Bus Service/Human Resource Development	JICA Study Team			
2	Mr. SHIMEGI Natsuki	Corporate Management/ Accounting	JICA Study Team			
3	Ms. Pathana INTHALANGSY	Interpreter English	JICA Study Team			
4	Ms. Phayakala CHANDENG	Project Secretary	JICA Study Team			
5	Mr. Chanthala VORRASING	Project Engineer	JICA Study Team			
6	Mr. Khamphoune TEMERATH	Director of VCSBE	VCSBE			
7	Mr. Bounthan SENSACKDAVONG	Chief of Finance Department of VCSBE	VCSBE			
8	Mr. Douangta SOUTHKHAMHI	Administrative Officer of VCSBE	VCSBE			
9	Mr. Phonesavanh INTHALANGSY	Chief of Management and Business Promotion Department of Public	Business Promotion Office, The Prime Minister Office			
10	Mr. Thongthip SIVIXAY	Chief of Cabinet of Business Promotion Office of Vientiane Capital	Business Promotion Office of Vientiane Capital			
11	Mr. Bounkham KHOUNPASEURT	Technical Officer	Business Promotion Office of Vientiane Capital			
12	Mr. Puthaxay SIRISACK	Technical Officer	Division of Planning and Budgeting/Department of			
13	Mr. Thongphoun SOUNTHAVONG	Chief of Management and Transport Division	Department of Transport/Ministry of Public			
14	Mr. Khamta ORLADOM	Chief of Cabinet of Financial Management Department of Public Enterprises	Financial Management of Department Vientiane Capital			
15	Mr. SysaNgouane VONGHALATH	Deputy Chief of Administration Office	Tax Department of Vientiane Capital			
16	Police Major General Bounmark SOUNDALAI	Chief of Propaganda Division	Traffic Department of Vientiane Capital			

2nd Working Group for financial support of VCSBE

Corporate management/ Finance
Natsuki SHIMEGI

Translator
Pathana INTHALANGSY

0. Purpose of 2nd Working Group

1. Review the 1st Working Group Discussion
2. Share information regarding the three types of financial support as below.
 - A) Explanation of Tax concession
 - B) Explanation of Subsidy
 - C) Explanation of Funding
3. Discuss which financial support should be adopted.
4. The revised schedule of working group should be approved.

1. Review the 1st Working Group Discussion

1. Following information is shared to participants.
 - Japanese current bus industry as the International trend of bus company management was Introduced.
 - Types of financial support to public company is introduced.
 - Status of financial support in other ASEAN countries was presented.
 - Difficulty to operate an Urban Bus Service in Vientiane Capital was introduced.
2. The establishment of the Committee for the financial support for VCSBE was raised.
3. The tentative Chair Person was selected.
4. The process of the operation for the Committee was confirmed.

Three types of financial support A) Explanation of Tax concession

■ Transition of Tax payment by main Tax items

- The scope of Tax to be discussed is as following.

1. Taxation on revenue.
 - Accrual and paid amount in last 4 years is shown in the table as below.

Description	2009	2010	2011	2012	Average
VAT(Sales)	1,507,429,403	2,813,188,616	3,133,804,835	3,311,720,075	2,691,535,732

2. Taxation on expense
 - Accrual and paid amount in last 4 years is shown in the table as below.

Description	2009	2010	2011	2012	Average
VAT(Expense)	583,039,983	1,468,400,479	1,645,788,321	1,516,894,519	1,303,530,826

3. Taxation on the profit and the scale of transaction
 - Regarding the Taxation on the profit and the scale of transaction, accrual and paid amount in last 4 years is shown in the table as below

Description	2009	2010	2011	2012	Average
Profit or Minimum Profit Tax	865,950,957	263,116,979	313,384,483	331,172,007	584,254,390

Three types of financial support A) Explanation of Tax concession

■ How to apply Tax concession

1. Taxation on revenue.
 - The number of stakeholders is limited.
 - Both ex-ante or ex-post ways can be adopted.
 - Ex-ante way (Tax is not paid to the government, therefore, refund after tax payment is not necessary) is easier for both VCSBE and MOF.
2. Taxation on expense
 - It is necessary to define the scope of exemption and decide the way of procedure from two ways, ex-ante or ex-post.
 - If ex-ante way is adopted, it is necessary to announce this exemption to related suppliers for VCSBE to trade by the price without VAT.
 - If ex-post way is adopted, paid VATs by VCSBE are refunded after a certain period of time, therefore, it is not necessary to announce this exemption to related suppliers, as a trade is made by usual price.
3. Taxation on the profit and the scale of the transaction
 - The number of stakeholders is limited.
 - Both ex-ante or ex-post ways can be adopted.
 - Ex-ante way (Do not pay to the government, therefore no refund) is easier for both VCSBE and MOF.

Three types of financial support A) Explanation of Tax concession

■ Advantage and disadvantage of Tax concession

- Advantage
 - i. Disbursement for the implementation is not necessary (In case the ex-ante way is applied).
 - ii. Easy to execute
- Disadvantage
 - i. Theoretical conflict which arises on subsidy as well.
 - ii. Contrary to the principles of fairness in taxation.

Three types of financial support B) Explanation of Subsidy

Types of subsidy

- Types of subsidy are highly related to the National, Ministry and Local government's policy. Therefore various subsidies are provided in many countries, such as
 - i. Subsidy to maintain local line
 - ii. Subsidy to introduce low emission (CNG, Hybrid) bus
 - iii. Subsidy to enhance EMS (Eco drive and Management system) and drive recorder
 - iv. Subsidy to enhance introduce non-step bus

How to apply subsidy

1. Particular governmental sector decides to provide subsidy based on particular policy and target.
2. Related regulation and implementation guide line should be legislated.
3. Decide the procedure for the disbursement, including the calculation method for fixing the amount of subsidy, timing, recipient (Bus company or fare payer) and so on.

Three types of financial support B) Explanation of Subsidy

Advantage and disadvantage of Subsidy

Advantage

- i. It is easy to reflect the overall policies of Nation or other ministries.
- ii. It is easy to adjust the strength of the policy, according to the amount or the type of subsidy.

Disadvantage

- i. There is conflict to beneficiary payment principle.
- ii. It is necessary to set the procedure to apply, and fix the target and amount.
- iii. Economic irrationality matter in Public Economics.

Three types of financial support C) Explanation of Funding

Types of Funding

1. Funding by Donors.
 - It is supposed to be difficult to receive additional Grant Aid by JICA
 - There is a possibility to get additional donors' funding; However, it would be a loan (not Grant Aid) as next aid.
2. Funding by Private financial institution
 - There is a possibility to borrow from Private banks as seen in the case of Thailand.

How to apply Funding

1. Find a proper contributor of Fund.
2. Implement a feasibility study and negotiate the required number of busses.

Three types of financial support C) Explanation of Funding

Advantage and disadvantage of Funding

Advantage

- i. "Network effect" is expected by introducing many bus at one time.
 - "Network effect" means that the high utility of bus network causes the increase of the number of passengers. And it is supposed that revenue increases.

Disadvantage

- i. Even if VCSBE increase the number of busses, net profit can not always be raised.
 - If VCSBE increase unprofitable line by funded busses, net profit will decrease. Therefore, there is a possibility that the Financial situation get worse.
 - As the current situation, it is important to get out of deficit by operation.
- ii. There is no immediate effect, and the current fundamental challenges can not be solved.

Three types of financial support

Sample Policy and Financial support Matrix

Payer / Funder	Target				
	Bus company	General Bus passenger	vulnerable (Elderly people/ Child)	Student	Policy participants (e.g.) Park & Ride
Central Government	<ul style="list-style-type: none"> ● Funding - National policy promotion by specified financial resource 				
Ministries	<ul style="list-style-type: none"> ● Subsidy for bus operation / Tax concession - Transportation policy promotion - Environmental Policy promotion 	<ul style="list-style-type: none"> ● Subsidy for bus operation - Transportation policy promotion - Environmental Policy promotion 	<ul style="list-style-type: none"> ● Subsidy for bus operation - Social welfare policy promotion 	<ul style="list-style-type: none"> ● Subsidy for bus operation - Educational and Transportation policy promotion 	<ul style="list-style-type: none"> ● Fare subsidy to the respective policies
Local government	<ul style="list-style-type: none"> ● Subsidy for bus operation - Urban development policy/Urban transportation network 	<ul style="list-style-type: none"> ● Fare subsidy - Welfare - Economic development 	<ul style="list-style-type: none"> ● Fare subsidy - Welfare 	<ul style="list-style-type: none"> ● Fare subsidy - Welfare 	

3. Discuss which financial support should be adopted

Prior to the discussion, the following items should be considered.

- From the view of current Financial situation of VCSBE, the difficulty of the bus company management and the situation of other ASEAN countries,
 - Tax concession or exemption should be executed.
 - Subsidy is also necessary.
- However, it is necessary to discuss the way of subsidy precisely, as a variety of methods exist.
- Funding should be discussed after recurring surplus is ensured by the operation.

ASEAN Countries

	Indonesia	Thailand	Philippine	Singapore	Malaysia	Vietnam
The name of Public Bus (Transportation) company	Transjakarta, bus rapid transit (BRT)	Bangkok Mass Transit Authority (BMTA)	N/A	N/A	<ul style="list-style-type: none"> Rapid KL Rapid Penang 	<ul style="list-style-type: none"> Ho Chi Minh-Ho Chi Minh Transport Management and Operation Center Hanoi-Hanoi Transport Management and Operation Center
Remarks regarding the situation of management		Revenue was 7,902M Baht. Cost was 10,593, and Net loss was 5,125M Baht in 2010. Carry forwarded loss is 77Bil Baht.	N/A	N/A	<ul style="list-style-type: none"> This company operates 167 routes with 1400 buses covering 980 residential areas with a ridership of about 400,000 per day. Operate not only bus, but also operated RT and Monorail 	N/A
Operation	Since its first year of operation until 2012, it is estimated that the city has invested over 3 trillion Indonesian rupiah (\$450 million USD) for busway infrastructure and to cover the TransJakarta operation. Now, nearly 4 trillion Indonesian rupiah (\$436 million USD) is currently allocated for ground transportation each year.	6.9% of Revenue (7.9Bil Baht) (2010) 7.3% of Revenue (8Bil Baht) (2009)	N/A	N/A	N/A	<ul style="list-style-type: none"> Ho Chi Minh-VND1.27 trillion (US\$60.4 million; 2011), VND574M (2008) Hanoi-VND1.1 trillion (USD52.7 million; 2011)
Subsidy for		No information was available.	N/A	Bus interchanges are funded entirely by the Government. In addition, public buses are also exempted from COE (Certificate of Entitlement) payments. The Government also pays for the development and software cost of the contactless smartcard system. Therefore, bus and train operators are only responsible for operations, maintenance costs and investments in		N/A
Fuel (whole country)	Though government had provided subsidy for diesel or other oil, cut it in this year.	Provide subsidy for diesel	Provide subsidy for diesel	N/A		Provide subsidy, 1,000 VND per liter, for the fuel suppliers.
The Private Bus (Transportation) companies	In more remote areas, and between smaller towns, most services are provided with minibuses or minivans.	Many private busses in various sizes, types, and prices; from half size, full size, double length, open window, fan, and air conditioned	<ul style="list-style-type: none"> All bus companies are private Many private busses in various sizes, types, and prices, from half size, full size, double length, open window, fan, and air conditioned 	All bus companies are private	<ul style="list-style-type: none"> (KL) Other rail-based services, such as KTM Komuter, KLIA Ekspres and KLIA Transit are operated by other companies. There are also many other bus operators such as Metrobus, Len Seng Omnibus Co. Ltd., and Selangor Omnibus Co. Ltd. 	<ul style="list-style-type: none"> Ho Chi Minh- 15 businesses operating in the public transport sector
Related Data source and related information	Income Statement of Bangkok Mass Transit Authority (BMTA). HP(http://www.bmta.co.th/about_profile.php)	N/A	N/A	Gov HP(http://www.ptc.gov.sg/regulation/fareRegulation.htm)	Export fuel to other countries	

Photos



The Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise

Meeting Records

For 3rd Working Group for Financial Support of VCSBE

Time/Date: Thursday, 29 March, 2012, 8:45 - 11:00
 Place: VCSBE Meeting Room
 Objectives: 3rd Working Group for Financial Support of VCSBE
 Participants:

VCSBE	Mr. Khamphoune TEMERATH, Director of VCSBE Mr. Bounthan SENSACKDAVONG, Chief of Finance Department of VCSBE Mr. Douangta SOUTHKHAMHUK, Administrative Officer of VCSBE
The Prime Minister Office	Mr. Phonesavanh INTHALANGSY, Chief of Management and Business Promotion Department of Public Enterprises, Business Promotion Office, The Prime Minister Office
Business Promotion Office Vientiane Capital	Mr. Thongthip SIVIXAY, Chief of Cabinet of Business Promotion Office of Vientiane Capital Mr. Bounkham KHOUNPASEURT, Technical Officer Business Promotion Office of Vientiane Capital
DoT/MPWT	Dr. Bounta ONNAVONG, Director Division of Planning and Budgeting/Department of Transport /Ministry of Public Works and Transportation Mr. Lieng MONTHALATH, Director Division of Land Transport / Department of Transport /Ministry of Public Works and Transportation
DPWTVC	Mr. Khamphay SOUVATHDY, Technical Officer Department of Public Works and Transportation Vientiane Capital
Tax Department Vientiane Capital	Mr. Khamta ORLADOM, Chief of Cabinet of Financial Management Department of Public Enterprises, Financial Management of Department Vientiane Capital Mr. SysaNgouane VONGHALATH, Deputy Chief of Administration Office Tax Department of Vientiane Capital
Traffic Department Vientiane Capital	Police Major General Bounmark SOUNDALAI, Chief of Propaganda Division, Traffic Department of Vientiane Capital
JICA Project Team	Mr. KUNIMASA Yoshiro, Vice Team Leader/Bus Service/Human Resource Development Mr. MURAKAMI Tadaaki, Bus Route and Operation Mr. SHIMEGI Natsuki, Corporate Management/ Accounting Ms. Pathana INTHALANGSY, Project Interpreter English Ms. Phayakala CHANDENG, Project Secretary Mr. Chanthala VORRASING, Project Engineer

The Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise

Speaker	Content	Action
Mr. Thongthip SIVIXAY	<p>Opening Remark by Mr. Thongthip SIVIXAY, Chief of Cabinet of Business Promotion Office of Vientiane Capital proposed about the Working Group objectives for today to continue to listen to Mr. SHIMEGI Natsuki, Cooperate Management / Finance Expert to explain about Financial Support Data Information and Figure to the Secretariat Committee Members to summarize all materials as information and figure as much as they can in order to report to high authority.</p>	
Mr. SHIMEGI Natsuki	<p>Mr. Natsuki SHIMEGI: Certified Public Accountant/ Cooperate Management / Finance proposed about additional information about other ASEAN countries, Financial impact by Tax concession and Subsidy, Management forecast of VCSBE, and Tax Law description in order to support these information to the Working Group Committee to discuss about detail data for Tax concession and Subsidy for VCSBE.</p> <p>After of his explanations he also would like the Working Group Committee Members to consider about 2 major issues such as:</p> <ol style="list-style-type: none"> 1. Request Subsidy from the Government 2. Apply Tax Payment to the Government as Tax Law Instruction and after that VCSBE can request to refund from the Government. <p>Moreover, he introduced about the Tax Law description for Tax concession for VCSBE would be justified in 4 terms such as:</p> <ol style="list-style-type: none"> 1. From Economics' views, the effect of subsidy and Tax concession is alternative. 2. The bottle neck of Tax concession which is not adopted for financial support for bus companies in other countries would be the point of view of fairness of Tax and too small impact. 3. It should be adopted under the current difficultness of subsidy in Lao PDR. 4. The understandable of VAT is indirect Tax and VCSBE pays it instead of substantial taxpayer, there are exemption articles for some entities in many countries including Japan and even Lao PDR. <p>However, If it is too difficult to exempt tax, especially, under the present Tax law articles, it would be possible to provide subsidy from the resource paid as Tax of VCSBE as recommendation. (As per Conference Materials attached)</p>	
Mr. Thongthip SIVIXAY	<p>Mr. Thongthip SIVIXAY, Chief of Cabinet of Business Promotion Office of Vientiane Capital advised in the discussion these Data Information above should be summarize and put it together in the next Developing Plan 2016-2020, but how the Working Group</p>	

The Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise

	<p>Committee will research the policy to propose to high authority to approve it in order to the Public Services Transportation can be survived and sustainable in long term.</p>	
<p>Dr. Bounta ONNAVONG</p>	<p>Dr. Bounta ONNAVONG, Director Division of Planning and Budgeting/DoT/MPWT proposed regarding from the JICA Project Expert explanations and conclude experiences of other ASEAN countries from the analysis and this Data Information will need to include in to the Project Proposal to propose to the Government to approve. Also, he mentioned about the Government plan to additional loan 150 buses to VCSBE from the Government of Japan in order to sufficient Public Bus Services to all routes. Moreover, he requested the Expert to summarize briefly 4-5 pages for minimum, but maximum not over 10 pages as Simplify Project Proposal and submit with the Working Group Committee's comments to high authority to consider to research and approve the policy as the urgent.</p> <p>On the other hand, he recommended amending some wording of Lao Translation in order to all Working Group Committee Members to understand same direction of this meaning.</p>	
<p>Mr. Khamphoune TEMERATH</p>	<p>Mr. Khamphoune TEMERATH, Director of VCSBE agreed with the Expert's explanations about the Data Information Sample from other ASEAN Countries to guide the Working Group Committee Members to have ideas to research some policies to help to survive of Public Services Transportation. Also, regarding to Tax Concession such as VAT paid when import parts purchased they cannot be claimed for refund 10% VAT return to VCSBE as payment made. So, it's very important to have policy.</p>	
<p>Mr. Khamphay SOUVATHDY</p>	<p>Mr. Khamphay SOUVATHDY, Technical Officer Department of Public Works and Transportation Vientiane Capital proposed to adjust MPWT formula when the fuel price go up immediately to reflect the bus fare due to it takes time to process the approval, which VCSBE has to response to the variance of expense to cover the fare cost of Public Bus user.</p>	
<p>Mr. Phonesavanh INTHALANGSY</p>	<p>Mr. Phonesavanh INTHALANGSY, Chief of Management and</p>	

	<p>Business Promotion Department of Public Enterprises, Business Promotion Office, The Prime Minister Office proposed to the Working Group Committee Members that this is the way how to develop the State Enterprise business.</p> <p>Especially, the JICA Project and this Committee to coordinate and integrate all Data Information in order to propose to high authority to consider and research the possibility solution. He proposed the analysis of possibility such as materials that related Law, Tax Law, State Budget Law, Property Law, etc...</p> <p>Also, he requested the Expert to research of forecasting plan in details about VCSBE Management, Marketing plan to extends of market to which target group should be analysis and again compare to other ASEAN Countries such as Malaysia, Thailand, Vietnam.</p> <p>Regarding to the Expert samples, we found that there was no information about Tax Concession only Subsidy on fuel, parts for equipment and tire in order to recover of VCSBE loss condition.</p> <p>He mentioned about the statistic of bus passengers figure is also need to analysis to have their own bus terminal in order to rival with private sectors. Also, he requested to the JICA Project team to study more deeply in details about the beneficiary of International Bus.</p> <p>Moreover, he proposed about 5 years strategy plan should be conducted.</p>	
<p align="center">Mr. Thongthip SIVIXAY</p>	<p>Mr. Thongthip SIVIXAY, Chief of Cabinet of Business Promotion Office of Vientiane Capital as the Working Group chairperson request to the Committee to finalize and conclude based on the JICA Expert Figure analysis and explanations and he would be welcome to all comments that will help VCSBE to stainable of Public Services Transportation.</p>	
<p align="center">Mr. SysaNgouane VONGHALATH</p>	<p>Mr. SysaNgouane VONGHALATH, Deputy Chief of Administration Office Tax Department of Vientiane Capital agreed to the JICA Expert explanations about Tax Concession or Tax Exempt because</p> <ul style="list-style-type: none"> ▪ Regarding to Tax Concession procedure of Value Added Tax 10% or Sales (VAT) - Expenses (VAT) = Variance (VAT) need to be deposit more to Tax Division (MOF) on monthly basis, but please bear in mind that the amount of value-added tax payable is equal to the amount of value-added tax 	

The Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise

	<p>collected at the time of sale (output) minus the amount of value-added tax paid at the time of purchase (input) as credit that is deductible as stipulated in Article 22 of VAT Law.</p> <p>Also, he agreed with Mr. Phonesavanh INTHALANGSY regarding to Marketing should be studied in more details.</p>	
<p style="text-align: center;">Dr. Bounta ONNAVONG</p>	<p>Dr. Bounta ONNAVONG, Director Division of Planning and Budgeting/DoT/MPWT informed about all information and Data gained to support the high authority level to consider solving the problem of the difficulty of Public Bus Services.</p> <p>Regarding to 5 years Strategy Plan actually already conducted by the JICA Expert as Master Plan since 2008 – 2025 such as: the Existing Road Network, Traffic Survey and Analysis, and Public Transport so the Working Group Committee can also use based on these Data Information and add up some update information in order to make it as the Simplify Project Proposal. Moreover, refer to the import of new bus plan as informed earlier in this Meeting is based on this Master Plan Study. Therefore, the Government (MPWT) plans to propose to loan 150 buses during this fiscal year 2013 – 2014.</p> <p>On the other hand, he agreed with Mr. Khamphay SOUVATHDY in order to amend formula for the price structure to reflect to the current situation.</p>	
<p style="text-align: center;">Mr. Lieng MONTHALATH</p>	<p>Mr. Lieng MONTHALATH, Director Division of Land Transport / DoT/MPWT replied about the MPWT formula is already add Business Turnover Tax or VAT and Profit Tax. However, if the Working Group Committee would like to propose to review the price structure so we need to propose to consider this will effect to Public Bus Users regarding to the reflect of fuel price immediately to the price structure of the bus fare if without the Subsidy from the Government to recover of the variance expenses.</p>	
<p style="text-align: center;">Mr. Khamta ORLADOM</p>	<p>Mr. Khamta ORLADOM, Chief of Cabinet of Financial Management Department of Public Enterprises, Financial Management of Department Vientiane Capital had agreed with all comments of the Working Group Members to research policy how to survive of VCSBE and Public Bus Services to all areas.</p> <p>This Working Group setup to research Data Information and summarize in to the report and submit to the high authority to consider to instruct the policy that related to Subsidy, but based on the JICA Project Expert advised and recommendation from other ASEAN Countries that they have experiences how they response to Public Bus Services. Therefore, he suggested to propose three types of Subsidy Methodology such as:</p> <ol style="list-style-type: none"> 1. Tax Concession or Tax Exemption 2. Subsidy 3. Funding <p>So these three types can apply all details as the report with the</p>	

The Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise

	<p>reason why we have to base on these three types (VCSBE proposed not to pay VAT because VAT “The value-added tax is an indirect tax that is collected on the proportion of value added to goods and services occurring in all processes, ranging from production, distribution, service supply to consumption; and is [also] collected on the value of goods and services imported into the Lao PDR”. So this mean VCSBE paid VAT on behalf of consumers this is the reason to add in to the Simplify Project Proposal as Dr. Bounta ONNAVONG mentioned so that the high authority can consider based on these Subsidy types to narrow of the policy as appropriately necessary to stainable of Public Bus Services Transportation.</p>	
	<p>Dr. Bounta ONNAVONG, Director Division of Planning and Budgeting/DoT/MPWT agreed with Mr. Khamta ORLADOM. So he request the JICA Project Expert (Mr. SHIMEGI Natsuki) to coordinate with him and summarize the content of the Simplify Project Proposal and supporting materials such as:</p> <ol style="list-style-type: none"> 1. Tax Concession or Tax Exemption 2. Subsidy 3. Funding. <p>On the other hand, he mentioned about the Government Meeting to discuss about how to get Bus Terminal that from the Private Company back to own by the Government in term of the massy management</p> <p>IE: Southern Bus supposed to service only from Vientiane Capital Bus Terminal to Southern Bus Terminal not Northern Bus Terminal.</p>	
<p>Mr. Thongthip SIVIXAY</p>	<p>Closing remark Mr. Thongthip SIVIXAY had concluded for this Meeting to research condition regarding to Tax Concession and propose to be the policy just for Public Bus Services and just for short term strategy, but for long term strategy is Subsidy from the Government to stainable of Public Bus Services Transportation.</p> <p>Also, he requested Dr. Bounta ONNAVONG to coordinate to provide the old Data Information from the Master Plan to the Working Group of Financial Support Committee Members of VCSBE as guide to draft the Simplify Project Proposal in order to propose to high authority level to consider in the next process.</p> <p>Moreover, the Final Meeting will conduct 1 more time before 10 April 2013 because the JICA Expert will back to Japan</p>	

- The conference was closed at 11:00 AM.

3rd Working Group for financial support of VCSBE -Discussion for “Subsidy”-

Corporate management/ Finance
Natsuki SHIMEGI

Translator
Pathana INTHALANGSY

0. Purpose of 3rd Working Group

- The main purpose of Today’s Working Group is to discuss the detail data for Tax concession and Subsidy for VCSBE as below.
 1. Additional information about other ASEAN countries
 2. Financial impact by Tax concession and Subsidy
 3. Management forecast of VCSBE
 4. Tax Law description
- The direction or tentative conclusion for Tax concession and Subsidy should be decided.

1. Additional information about other ASEAN countries

- I. Thailand
- Structure of Revenues and Expenses for Fiscal Year 2011



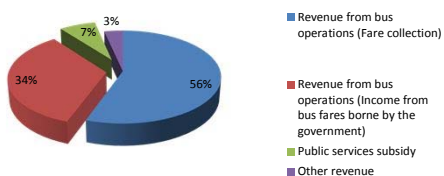
1. Additional information about other ASEAN countries

- Structure of Revenues for Fiscal Year 2011



1. Additional information about other ASEAN countries

- After performing compilation, the subsidy or other government support reach 41% of the entire Income.
- Moreover, these income can cover 60% of expense. Rest of expense (40%) is net loss.



- Other related information is in the summary as Appendix and Annual Report as reference.

1. Additional information about other ASEAN countries

II. Vietnam (Hanoi)

- A) Tax concession
- No information
- B) Subsidy
- Roughly, 30% of revenue would be subsidy.
 - Amount of Subsidy for Hanoi bus
 - VND1.1 trillion (USD52.7 million, 2011)
 - Total revenue of TRANSERCO (Public Bus company)
 - VND3.6 trillion (2012)
- C) Funding for the fixed investment
- Hanoi Transport Service Corporation (Transerco) has launched over 150 new buses friendly to the environment and over 100 bus stations equipped with information about bus services. However, there is no information about the financial recourse of this investment.

(Source: <http://talkvietnam.com/2012/05/hanoi-taxi-companies-oppose-citys-management-plan/>, <http://www.intelliasia.net/business-briefs-january-29-261404>)

2. Financial impact by Tax concession and Subsidy

1. Financial impact by Tax concession

Impact by Tax

VAT

- 10% is Maximum impact
- 10 % is achieved only in case that VAT on revenue is exempted, and all refunds for VAT on expense are executed.
- As actual procedure, some VAT items refunds would not be able to be collected, therefore, less than 10% (8-9%) of Sales is expected.

2. Subsidy

Impact by subsidy

- Impact by subsidy is variable according to the types of subsidy and practice way. Here, show the sample impact.
 - If support half of fare for students to the Dongdok, estimated impact ratio is calculated by next formula

$$\frac{660,999,000(\text{Total revenue of Dongdok route}) * 50\% (\text{Rate of students in all passengers}) * 50\% (\text{Rate of support}) / (35,285,660,992 * 6/12)(\text{Revenue of whole bus operation during 6 months})}{-0.93\%}$$

3. Management forecast of VCSBE

Current recognized major management issue of VCSBE and consideration

- Cost management is insufficient
 - Project team is conducting to instruct the operation management and cost management to achieve marginal efficiency by the introduction of digital tachograph, cost management by cost analysis of each bus and route and on.
- Fare price does not reflect actual expense for the operation.
 - Fare change can not absorb the fuel cost at the time of the steep rise of fuel price in the market.
 - Though fare calculation formula by MPWT includes some estimation and assumption, the actual structure of expense does not match to these estimation and assumption.
- Dilemma between price fare and the number of passengers
 - Related to the above issue of bus fare price, it is possible that VCSBE submit the request of fare change according to the actual price.
 - However, as well known, there is inverse relationship between the fare price and the number of passengers.
 - Moreover, the price of bus fare would be reaching the limit considering with the level of income and public interest in Lao PDR.

3. Management forecast of VCSBE

(Reference) Comparison of minimum fare / GDP per capita

In Lao PDR

GDP Per Capita in Lao PDR (2011)	2,790
Minimum fare (L= (27/3/2013)	2,000 Kip
Fare/GDP Per Capita (1/100000)=	0.72

In other countries (source: Comparative Study on Institutional System of Urban Bus Transportation: Bangkok, Hanoi, Singapore, Tokyo, and Yangon; Nozomi SAITO Hironori KATO, 2011)

City and type of bus	GDP per capita (US\$) in 2008	Minimum fare per trip for an adult **	Fare/GDP per capita (1/100000) **
Bangkok (Regular)	7,469 **	BHT 7	2.5
Bangkok (Premium)		BHT 12	4.2
Hanoi	2,574 **	VND 3,000	7.3
Singapore (Regular)	43,533.2 **	SD 66	0.9
Singapore (Premium)		SD 130	1.8
Tokyo	31,484 **	JPY 160	4.8
Yangon (Regular/semi)	378 **	KT 50	7.7
Yangon (Premium)		KT 300	48.3

Notes:
 *1 PPP constant 2005 international \$ in 2008. World Bank statistics
 **2 Current prices in US dollars in 2008 UN data (2008).
 **3 as of December 2008
 **4 Exchange rate: national currency per US\$ is L= BHT 36.88. VND15994.3, SD 158, JPY116.29. (Source: general average (GAP), UN data 2008) and L= 1122K (Tokyo in Myanmar. <http://www.myanmar2day.com>, as of July 2009).

3. Management forecast of VCSBE

As a summary, following effect is expected by JICA project

Activities	Effect to the cost	Effect to the revenue
Introduction of ICT and Camera		↑ Accurate count of the number of passengers → Proper collection of fare from drivers (Not yet provided)
Advertisement in new bus		↑ Create new resource of income
Introduction of digital tachograph	↓ Improvement of fuel efficiency through eco-driving	
Grant aid of Spare parts and tire	↓ Direct support for maintenance cost	
Operation and cost management	↓ Reduce operational and management loss	↑ Increase the number of passengers due to the punctual and safety drive

- However, the financial plus impact would not be sufficient to recover the cost without financial support from Government.

3. Management forecast of VCSBE

- In the project, the instruction of the long term management plan will be implemented.
- In management plan, the policy or direction of MPWT and VC for VCSBE are important.
- Especially, the policy effects to the financial plan and financial forecast varies according to the future financial support for the VCSBE.

a. The sample scenario to purchase new bus by retained earnings.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Net loss	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777
Expenditure of VAT included	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875
Subsidy	31,813,889,760	31,813,889,760	31,813,889,760	31,813,889,760	31,813,889,760	31,813,889,760	31,813,889,760	31,813,889,760	31,813,889,760	31,813,889,760	31,813,889,760	31,813,889,760	31,813,889,760
Hyundai NBN bus*1C													
Total	32,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000

b. sample scenario to keep current scale of management, and government will provide new busses for replacement.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Net loss	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777	-1,105,529,777
Expenditure of VAT included	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875	3,311,729,875
Total	186,100,298	372,200,596	558,300,894	744,401,192	930,501,490	1,116,601,788	1,302,702,086	1,488,802,384	1,674,902,682	1,861,002,980	2,047,103,278	2,233,203,576	2,419,303,874

3. Management forecast of VCSBE

- In In the scenario (a), the ratio of subsidy in revenue reaches 50%.

- This scenario calculation is very rough and does not consider the discounted present value, nor the precise calculation of required number of bus. And the hypothesis that present Net loss continues may be negative basis of calculation.

- Nevertheless, it is understandable that to purchase the new busses even to keep the present size of company by own funding is too difficult and unrealistic.

4. Tax Law description for Tax concession

- The Tax concession is rare case as the alternative way of Subsidy for a company.
 - Tax concession for VCSBE would be justified in terms of the following points.
 - i. From the view of Economics, the effect of subsidy and Tax concession is alternative.
 - ii. The bottle neck of Tax concession which is not adopted for financial support for bus companies in other countries would be the point of view of fairness of Tax and too small impact.
 - iii. However, it should be adopted under the current difficultness of subsidy in Lao PDR.
 - iv. Though it is understandable that VAT is indirect Tax and VCSBE pays it instead of substantial taxpayer, there are exemption articles for some entities in many countries including Japan and even Lao PDR.
 - If it is too difficult to exempt tax, especially, under the present Tax law articles, it would be possible to provide subsidy from the resource paid as Tax of VCSBE.
- Presentation from committee member.

Scenario1

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ຂອດຫຼັບທຶນຊຸດທີ	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777
ໄດ້ຮັບການຮັກເຊີນ ອາກອນມູນຄ່າເລີມ VAT	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075
ຮຽນອັດຫຼຸບຈາກ ລົດກະບາບSubsidy	31,813,809,702	31,813,809,702	31,813,809,702	31,813,809,702	31,813,809,702	31,813,809,702	31,813,809,702	31,813,809,702	31,813,809,702	31,813,809,702
ລົດເມັ່ນຂອຍ Hyundai Mini bus*5					-160,000,000,000					-160,000,000,000
ລວມ	32,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000	-128,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000	32,000,000,000	-128,000,000,000

Scenario2

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ຂອດຫຼັບທຶນຊຸດທີ	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777	-3,125,529,777
ໄດ້ຮັບການຮັກເຊີນ ອາກອນມູນຄ່າເລີມ VAT	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075	3,311,720,075
ລວມ	186,190,298	372,380,596	558,570,894	744,761,192	930,951,490	1,117,141,788	1,303,332,086	1,489,522,384	1,675,712,682	1,861,902,980

Minutes of Discussion

Workshop	Confirm the progress and further process of tax concession
JICA Expert	Mr. SHIMEGI Natsuki, Corporate Management/ Accounting
Participant	13 persons
Date/time	13 November, 2014/ 14:00 -16:00
Theme	Tax Concession
Agenda	1 . Management Plan
Overview	1 . Mr. Shimegi explained about the management plan.

Registration

Meeting Topic:

Place: VCSBE Meeting Room

Date: 13 November 2014

Time:

ວ/ດ No.	ຊື່ ແລະ ນາມສະກຸນ Name & Surname	ຕຳແໜ່ງ Position	ມາຈາກພາກສ່ວນ Organization	ເບີໂທລະສັບມືຖື Telephone number	ທີ່ຢູ່ອີເມວ Email Address	ລາຍເຊັນ Signature
1	Mr. TODA Toshinori	Team Leader	JICA Study Team			
2	Mr. Yashiro Shuichi	Transport and Traffic Plan	JICA Study Team			
3	Mr. SHIMEGI Natsuki	Corporate Management/ Accounting	JICA Study Team			
4	Mr. Detsongkham THAMMAVONG	Director	DPWT			
5	Mr. Thongphun SUNTHAVONG	Chief of transport sector	DPWT			
6	Mr. Somsanith HOUATHONGKHAM	Officer of transport sector	DPWT			
7	Mr. Khamphoune TEMERATH	Director	VCSBE			
8	Mr. Bounpone FONGMANY	Deputy director	VCSBE			
9	Mr. Buapha PHETVISAY	Deputy director	VCSBE			
10	Mr. Vanly CHANCHALERN	Deputy director	VCSBE			
11	Mr. Bounthan SENSACKDAVONG	Chief of Finance Section	VCSBE			
12	Dr. Bounta ONNA VONG	Director of planning and budgeting division.	DOT			
13						

Registration

Meeting Topic:

Place: VCSBE Meeting Room

Date: 13 November 2014

Time:

ວ/ດ No.	ຊື່ ແລະ ນາມສະກຸນ Name & Surname	ຕຳແໜ່ງ Position	ມາຈາກພາກສ່ວນ Organization	ເບີໂທລະສັບມືຖື Telephone number	ທີ່ຢູ່ອີເມວ Email Address	ລາຍເຊັນ Signature
14	Ms. Souphany HEUANGKEO	Officer	DOT			
15	Mr. Nuson MEUNVISED	Director	Business Improvement Office, VC			
16	Mr. Khamta ORADOM	Officer	VC Department of Finance			
17	Mr. Konkeo SISALAY	Officer	VC Department of Tax			
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Photos



App4 Workshop Materials

Act3-6 Update Public Transportation Policy and Plan

No.	Date	Seminar / Workshop	Page
(3)	Bus Promotion and Safety Campaign		
1	26 Oct, 2013	Traffic Safety Training Campaign at Vientiane Secondary School	App4-382
2	13 Mar, 2014	Bus Management and Operation Improvement in Japanese Practices and Experiences	App4-394

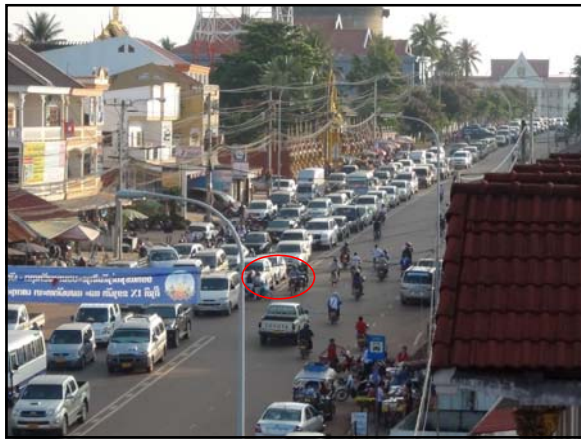
Traffic Safety Training Campaign

On Saturday 26 October 2013, at Vientiane Secondary School

Agenda

Time	Description	Responsible
08:30 - 09:00	Registration	All Invitees attended
09:00 - 09:05	Welcome and Opening Remark	Director of Vientiane Secondary School
09:05 - 09:10	Introduction of Traffic police and Keisei bus trainers to school children	
09:10 - 09:15	Speech from Director of VCSBE	
09:15 - 09:20	Speech from traffic police	
09:20 - 09:25	Speech from Keisei bus and Kei	
09:25 - 09:30	Explanation of today's training schedule	
09:30 - 10:00	Lecture by traffic police (30 min) at classroom	
10:00 - 10:10	Break Time	
10:10 - 11:10	Bus use training at school ground (outside)	
	End	

ການຝຶກອົບຮົມ
ກິດລະບຽບຈະລາຈອນ
 ໃຫ້ແກ່ນັກຮຽນ ປະຖົມວຽງຈັນ 26/10/2013
 ສະເໜີໂດຍ ທ່ານ ພັດ ບຸນມາກ ສູນດາໄລ
 ຫົວໜ້າກອງໂຄສະນາ ພະແນກຕໍາຫຼວດຈະລາຈອນ ນະຄອນຫຼວງ.



ສະພາບການຈະລາຈອນຢູ່ນະຄອນຫຼວງວຽງຈັນ

ສະຖິຕິອຸປະຕິເຫດ ປີ 2013

ອຸປະຕິເຫດເກີດຂຶ້ນທັງໝົດ: 1.520 ລາຍ.

ຄົນໄດ້ຮັບບາດເຈັບ: 2.368 ຄົນ ພາຫະນະເປ່ເໝ: 3.044 ຄັນ

- ເສຍຊີວິດ 202 ຄົນ.

ມູນຄ່າເສຍຫາຍ: 23.275.000.000 ກີບ

Statistic of Vehicle in Vientiane									
Y	Motor-cycle	Tuktuk	Car	Pick-up	Jeep	Mini-bus	Truck	Bus	Total
09	281.908	4.550	19.905	58.658	11.877	14.341	13.657	1.275	406.171

Statistic of Driving Licenses						
Year	A	A1	B	C	D	Total
2009	71.682	1.492	64.800	32.235	3.134	173.297
2010	14.315	61	11.047	7.354	504	33.281
2011	11.167		10.935	5.785	326	28.213

Including with the Control's book 195.567

ຍານພາຫະນະ = 583.338 ຄັນ
 ຈຳນວນໃບຂັບຂີ່ = 238.305 ໃບ
 ນັກຂັບຂີ່ທີ່ບໍ່ມີໃບຂັບຂີ່ = 210.604 ຄົນ





**ເພື່ອຫຼີກເວັ້ນຈາກການເກີດອຸປະຕິເຫດ
ຄວນປະຕິບັດຕາມສາມຫຼັກການດັ່ງນີ້:**

- 1 ຝຶກແອບຂັບຂີ່ລົດໃຫ້ມີຄວາມຊຳນານ
- 2 ຮຽນຮູ້ກົດລະບຽບຈະລາຈອນ ແລະ ປະຕິບັດຕາມຢ່າງເຂັ້ມງວດ
- 3 ຕ້ອງມີຄຸນສົມບັດ ແລະ ມາລະຍາດໃນການຂັບຂີ່

1. ຝຶກແອບຂັບຂີ່ລົດໃຫ້ມີຄວາມຊຳນານ ຜູ້ຂັບຂີ່ລົດຕື່ມອີກມີ
ອາຍຸ 12 ປີ ຂຶ້ນໄປ



2 ຮຽນຮູ້ກົດລະບຽບຈະລາຈອນ ແລະ ປະຕິບັດຕາມ
ຢ່າງເຂັ້ມງວດ

ມາດຕາ 1: ກົດລະບຽບທົ່ວໄປ

1.2: ຢູ່ ສູ່ຟລາວການສັນຈອນຕາມເສັ້ນທາງຫຼວງແມ່ນໃຫ້ໃຊ້ທາງກຳຂວາ



ຳ× ÖaÁé ÁÖÈÉÚÁYÈÁaÇãÙ × Ì Öðñ, ຂັບ
ÁÖÈÁÁÉÚÁÁÁ × ÁÁè ÁBÉÍ



Ààì Ö× ÖÈ (Ì È ÈÈÀÁÈÈ) ຕ້ອງສົ່ງສັນຍານ



1. Εξέρχεται από την οδό



2. Οδηγεί με ταχύτητα



3. Οδηγεί με κακή ορατότητα



4. Απαιτείται να ακολουθείται η οδός



5. Απαιτείται να ακολουθείται η οδός



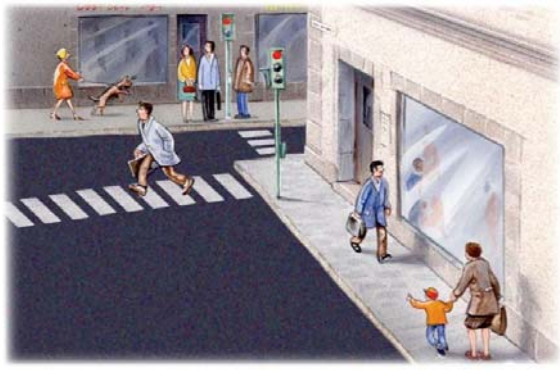
ອາຍຸ ກະສຽນຂອງຜູ້ຂັບຂີ່, ກະສຽນອາຍຸ 15ປີ ຂຶ້ນໄປ



ຫ້າມຂີ່ລົດແຂ່ງກັນຢູ່ຕາມເສັ້ນທາງ ໃນຕົວເມືອງອະນຸຍາດໃຫ້ໃຊ້ຄວາມໄວ 40 ກິໂລແມັດຕໍ່ຊົ່ວໂມງ



ລຳດັບ ຄຳສັ່ງ ທີ່ ບໍ່ ບໍ່ ບໍ່ ບໍ່ (ຄຳສັ່ງ ທີ່ ບໍ່ ບໍ່ ບໍ່ ບໍ່)

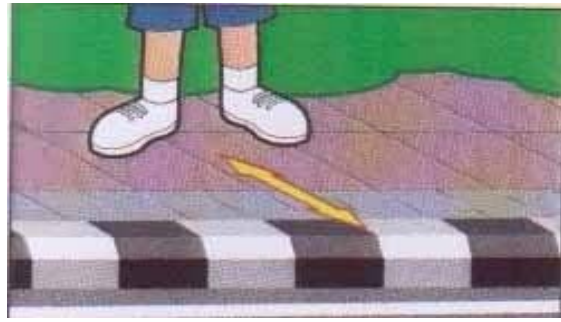


× ຄຳສັ່ງທີ່ບໍ່ຖືກຕ້ອງ ທີ່ບໍ່ຖືກຕ້ອງ ທີ່ບໍ່ຖືກຕ້ອງ

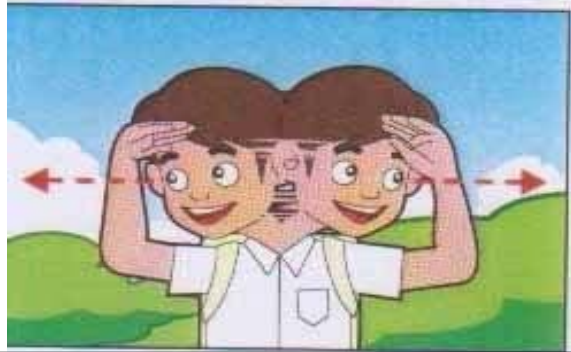


× ຄຳສັ່ງທີ່ບໍ່ຖືກຕ້ອງ ທີ່ບໍ່ຖືກຕ້ອງ (ຄຳສັ່ງທີ່ບໍ່ຖືກຕ້ອງ ທີ່ບໍ່ຖືກຕ້ອງ)

ຂັ້ນຕອນທີ 1: ຢຸດ ແລະ ຍືນຢູ່ໃນຂອບທາງ
step 1: stop and one step behind kerb



ຂັ້ນຕອນທີ 2: ຕ້ອງແນມເບິ່ງເບື້ອງຂວາ, ຊ້າຍ ອີກເທື່ອໜຶ່ງ
Step 2: look right, left and right again



ຂັ້ນຕອນທີ 3: ຕ້ອງຟັງສຽງລົດ
Step 3: Listen



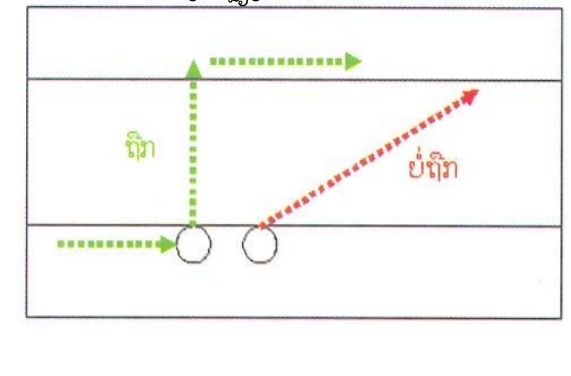
ຂັ້ນຕອນທີ 4: ຕ້ອງຄິດກ່ອນຈຶ່ງຂ້າມທາງ
Step 4: Think



ຂັ້ນຕອນທີ 5: ເວລາຂ້າມທາງຕ້ອງເບິ່ງລົດທີ່ແລ່ນມາ
Step 5: keep watching for traffic



ເວລາຂ້າມທາງ ຕ້ອງຂ້າມຊຶ່ງກົງ ບໍ່ໃຫ້ຂ້າມ
ເປັນທາງສະຫຼຽງ

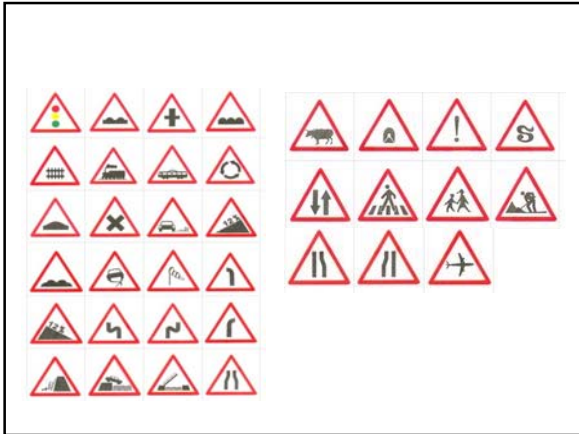


❖ ລະບົບເຄື່ອງໝາຍສັນຍານການຈະລາຈອນທີ່ຕິດຕັ້ງໄວ້ຕາມແຄມທາງ, ເທິງທາງ, ໜ້າທາງ, ຂອບທາງ ເປັນຕົ້ນແມ່ນລະບົບປ້າຍສັນຍານຈະລາຈອນ, ສີຂອງຂອບທາງ, ເສັ້ນແບ່ງຊ່ອງທາງຈະລາຈອນ ລວມເຖິງລະບົບໄຟອໍາມາດ. ຖ້າທ່ານຜູ້ທີ່ສັນຈອນຕາມເສັ້ນທາງຫາກເຄົາລົບ ແລະ ປະຕິບັດຕາມ ຄວາມສັບສົນແລະແອອັດກໍຈະຫຼຸດລົງ ແລະ ອຸປະຕິເຫດກໍຈະຫຼຸດລົງ.

❖ ລະບົບປ້າຍສັນຍານຈະລາຈອນ ໂດຍລວມແລ້ວມີຢູ່ 6 ໝວດດ້ວຍກັນຄື:

1. ປ້າຍເຕືອນອັນຕະລາຍ: ມີສັນຍາລັກເປັນຮູບ3ແຈສະເໝີຂອບສີແດງ ພື້ນສີຂາວ ມີເຄື່ອງໝາຍບົ່ງບອກຢູ່ພາຍໃນຮູບ, ເປັນລັກສະນະທີ່ເຕືອນບອກຕ່າງໆ





2. **ປ້າຍຫ້າມ.** ສັນຍາລັກດ້ວຍຮູບວົງມົນຂອບສີແດງ, ພື້ນສີຂາວ ຫຼື ສີຟ້າ.



3. **ປ້າຍບອກສິດ.** ມີສັນຍາລັກເປັນຫຼາຍຮູບແບບ ລວມມີ 6 ປ້າຍ.



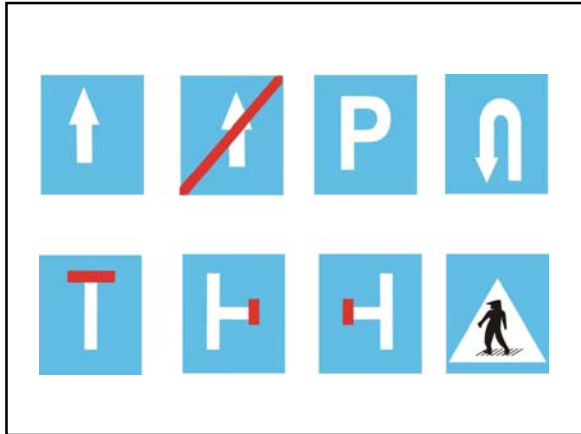
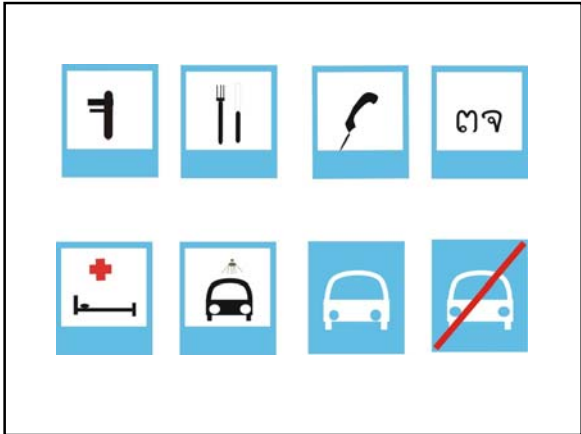
4. **ປ້າຍກຳນົດຫຼືຄຳສັ່ງ.** ມີລັກສະນະເປັນຮູບວົງມົນສີຟ້າ, ສັນຍາລັກດ້ວຍລູກສອນບອກທິດຂອງການສັນຈອນ, ເປັນຮູບພາຫະນະ, ຄົນ ຫຼື ຕົວເລກ.



5. **ປ້າຍແນະນຳ ແລະ ບໍລິການ**

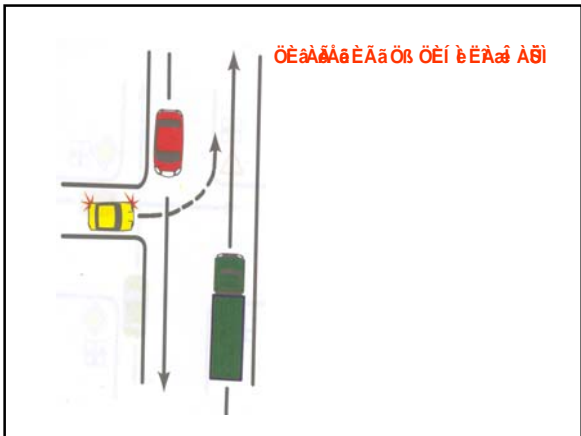
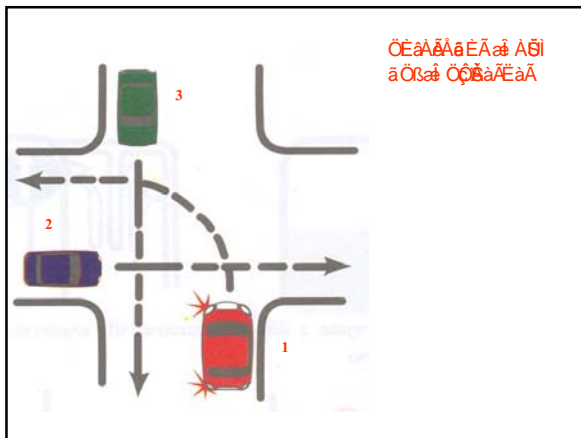
ໂດຍລວມແລ້ວຈະບໍ່ໄດ້ຈຳກັດທາງດ້ານຮູບແບບລັກສະນະ ແລະ ສີສັນ . ຈະມີຫຼາຍຮູບແບບ ສ່ວຍຫຼາຍແລ້ວແມ່ນເປັນການຊີ້ບອກໃຫ້ນັກຂັບຊື່ຜູ້ໃຊ້ລົດໃຊ້ຖະໜົນ ໄດ້ຮັບ ຮູ້ ແລະ ໄດ້ຮັບຄວາມສະດວກເຂົ້າໃຈງ່າຍໂດຍມີການຂຽນຕົວອັກສອນບອກຢ່າງລະອຽດ ເປັນຕົ້ນ ບ່ອນຈອດລົດ, ຮ່ານອາຫານ, ໂຮງແຮມ, ໂຮງພິມ, ປູ່ນຳມັນ ຊື່ ບໍລິສັດ, ສຳນັກງານ - ອົງການ ທາງຮອມເຂົ້າໝູ່ບ້ານ.ແລະອື່ນໆ.





6. ປ້າຍເພີ້ມ

ທາງເວ້ນ →	← ທາງເວ້ນ	↑ ທາງເວ້ນ	STOP
30 MIN	15 T	100 M →	← 300 M



ຂອບໃຈ

ກິດຈະກຳຄວາມປອດໄພ
ທາງດ້ານຈະລາຈອນສຳລັບຜູ້ນຳໃຊ້ລົດແມ

■ ວັນທີ 26 ຕຸລາ 2013, ຕາມ
 ສື່ສານສົມບູນແຮງງານ ໂຮງຮຽນມິດທະຍົມ
 ປັບປຸງການຂົນສົ່ງສາທາລະນະ
 ໃນຕົວເມັງ ນະຄອນຫຼວງວຽງ
 ຈັນ ໄດ້ຈັດກິດຈະກຳການຝຶກ
 ອົບຮົມຄວາມປອດໄພທາງດ້ານ

ຈະລາຈອນສຳລັບເນັ້ນໃຊ້ລົດແມ
 ເຊິ່ງຮວມມີດທະຍົມ
 ທ່ານ ສຳພັນ ແມ່ສາຕາ ບົດບາ
 ລົດວິສາຫະກິດລົດແມນະຄອນ
 ຫຼວງວຽງຈັນ ທ່ານ ບັນດີ ບຸນ
 ມາກ ສູນດາໄລ

ອຳນາດສຳນັກ

ກິດຈະກຳ...

ຄອນແຜນ ຕັ້ງຫຼວງຈະລາ
 ຈອນນະຄອນຫຼວງວຽງຈັນເຊິ່ງນຳ
 ວຽກງານ ນິຕິສະຫະລາຈອນ
 ມີທາງໜ້າຈາກບໍລິສັດລົດແມ
 ເຕເຊຍ ປະສູດຢູ່ນັບ ບໍລິສັດ ເອອີ
 ໄອ ພອມດ້ວຍນະຄອນຫຼວງວຽງຈັນ
 ໂຈ່ງຮຽນມິດທະຍົມສຶກສາສົມ
 ບູນວຽງຈັນ ຕະ ໂຈ່ງຮຽນມິດທະຍົມ
 ນຳໂຮງຮຽນອຳນາດ.

ທ່ານ ສຳພັນ ຕາມລາດ
 ໄດ້ກ່າວວ່າ: ໂຮງຮຽນມິດທະຍົມ
 ແມ່ນຈັດອຸ້ມໂຄ່ຍພາຍໃຕ້ການຊີ້
 ນຳຈາກທ່ານເຈົ້າຂອງນະຄອນ
 ຫຼວງວຽງຈັນ ກໍ່ສິ້ນຂຶ້ນສັງ ກະ
 ຊວງ ບຸກຄະ ພະແນກໂຍທາທິ
 ການ ແລະ ອົນສັງ ນະຄອນຫຼວງ
 ວຽງຈັນ ແລະ ພາຍໃຕ້ການ
 ຊ່ວຍເຫຼືອຈາກໂຄງການໂຈກາ
 ຜ່ອນກະຕຸ້ນໄທບັນດານັກຮຽນ
 ນັກສຶກສາທົ່ວໄປ ຫັນມາໃຊ້ລົດ
 ໂດຍສານປະຈຳທ່າງ ເປັນຕົ້ນ
 ແມ່ນການຫັນມາໃຊ້ລົດແມ ຜ່ອນ
 ຫຼັດຜອນການຂົນສົ່ງລົດຈັກ ແລະ
 ຫຼັດຜ່ອນຈາກການເກີດອຸບັດເຫດ
 ກັບເຫດຖະຫິນ ນອກຈາກນີ້ ຍັງ
 ເປັນການຫຼຸດຜ່ອນຄວາມເຮັດ
 ຂະບຽງການສັນຊອນຕາມເສັ້ນທາງ
 ຕ່າງໆ.

ກິດຈະກຳໃນຄັ້ງນີ້ ບັນດາ
 ນອງນັກຮຽນທີ່ເຂົ້າຮວມແມ່ນໄດ້
 ພ້ອມກັນຮັບຟັງການແນະນຳກິດ
 ລະບຽບ ຈະລາຈອນ ບັງເກີດ
 ບັດເຫດຕ່າງໆທີ່ເກີດຂຶ້ນຕາມ
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 ລົດແມ ຜ່ອນຄວາມປອດໄພຈາກ
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 ເຊຍ.

The Bus Safety Campaign for Bus User

On the last Saturday, October 26, 2013, there was a project to push the Bus Use Safety Campaign in Vientiane Secondary School; it was conducted under the JICA project to enhance the Capacity of Vientiane Capital State Bus Enterprise. The campaign was attended by Mr. Khamphoune Temelath, Director of Vientiane Public Transport Enterprise, a Major Boummark Soundalai, Vientiane Police Office, who was in charge to promote the road traffic regulation; representatives from Japan Keisei Bus Company and including 60 students from Nahaidew Primary School and Vientiane Secondary School.

Mr. Khamphoun said the project was conducted under the supervision of Vientiane Capital vice mayor as well as Ministry of Public Work and Transports and supported by JICA to raise the awareness for students in shifting their behavior to public transportation as well as traveling by public bus. This method is the effective way to reducing traffic accident, numerous motorcycle and congestion on the road.

During the campaign, all students were advised traffic regulation, traffic accident via video by police officer as demonstrated Bus Use Safety by experts from Keisei Bus Company.

Source: Vientianemai Newspaper on 30 October 2013



Vientiane students learn about the safe use of public transport.

Students all aboard school bus push

Bounfaeng Phaymanivong

Public transport use among Vientiane's schoolchildren may be on the rise under a campaign to teach students about the safe use of buses.

The Vientiane Public Transport Enterprise brought together 60 students from Nahaidiew Primary School and Vientiane Secondary School on Saturday to learn about the safe use of public transport and road safety in general.

Vientiane Public Transport Enterprise Director, Mr Khamphou Temelath, said lessons were taught based on the experience of Japanese schoolchildren, who frequently used public transport on their own.

"We specifically focus on young passengers to enable them to use public buses on their own safely while going to school," he said.

The campaign, which is aimed at reducing

congestion and accidents on the city's roads, is part of a project to enhance the capacity of the Vientiane Capital State Bus Enterprise.

Mr Khamphou said the push would be expanded to include adult passengers in a bid to fight congestion, petrol expenses and air pollution.

Vientiane faces ever-worsening traffic congestion and accidents because of an increased number of vehicles on the road and inappropriate parking practises.

Mr Khamphou said public transport had never caused a road accident that resulted in a fatality in Vientiane.

Last year, the Japanese government donated 42 new buses to Laos to ease traffic congestion and reduce carbon emissions by lowering the number of motorbikes and cars on the road.

In the 2011-12 fiscal year, 6,150 road accidents in Laos claimed 898 lives and left 10,461 injured.

News in Brief

Luang Prabang stages exhibition

Luang Prabang province held an art, trade, investment and tourism exhibition in the provincial capital on October 25, with exhibitors from Thailand, Vietnam and China taking part.

The exhibition was opened by the Head of the provincial Industry and Commerce Department, Mr Somphong Praditjit. There were 93 booths exhibiting goods valued at more than 247 million kip. Lao businesses had 38 booths, Vietnam 21 booths, Thailand 32 booths, and China two.

The artistic performances included nine from Laos, 21 from Thailand, six from China and six from Vietnam.

Teenager dies in Vientiane mob attack

More than fifty teenagers beat another local youth to death in a callous mob attack in Kaonhoth village, Sisattanak district in Vientiane last Sunday at about 1am.

Vientiane police reported the victim – Mr Amphone – and friends were drinking at restaurants on the Mekong River before going for a joyride on the way home.

While travelling through Kaonhoth village Mr Amphone had an accident with a black motorbike bearing no number plates.

An argument ensued and a large mob connected to the black motorcyclist descended on Mr Amphone and his friends.

In the ensuing madness, Mr Amphone was beaten to death with steel bars and motorcycle helmets while his friends were hospitalised. Police are searching for the offenders.

Road accidents remain high

Vientiane has recorded 115 road accidents in the last month, leading to 15 fatalities.

According to the Vientiane Traffic Police monthly report, the estimated total damages amounted to 1.14 billion kip.

The largest number of accidents was recorded in Sisattanak district. Aside from the 15 fatalities, another 27 people sustained critical injuries, 68 were moderately wounded and 69 sustained minor injuries.

Police said they believed the causes of the accidents were related to the violation of the traffic regulations, intoxication and other reckless behaviour.

Works to continue on Khammuan irrigation

Authorities from the Ministry of Agriculture and Forestry inspected the progress of construction at the Namhouk irrigation project in Bualapha district, Khammuan province recently.

The Namhouk irrigation project commenced in 2010, with works being undertaken by Sihalath Construction Company, funded out of the state budget at a cost of more than 10 billion kip. Work continued for three years but the project has experienced delays. Presently it is 38 percent complete and authorities are waiting for another company to take over.

Works are expected to be complete in 2015. Once finished, the system will supply water to almost 2,800ha of land, covering 10 villages.

The Ministry of Health The Principal Recipient (PR) Office Vacancy Announcement for Finance Officer

Background

The Principal Recipient office (Ministry of Health) received since 2003, 13 grants from the Global Fund to fight HIV/AIDS, Tuberculosis and Malaria for an approximate total amount of US\$100 millions. Three grants are currently active.

The Principal Recipient (PR) provides Procurement and Logistics services, Monitoring and Evaluation expertise and Financial Management Systems to a number of Sub-Recipients who are directly responsible for implementing prevention, care and treatment intervention programs in Lao PDR.

To complete its finance and accounting team the Principal Recipient is seeking one full time finance Officer to be based in Vientiane office.

Main responsibilities : Under the supervision of the head of finance:

- Contribute to the monthly, quarterly, half yearly and yearly financial report
- Participate to accounting recording and reporting
- Participate to the budget preparation and review
- Participate to and reinforce the internal control
- Contribute to the capacity building of the implementation sites and partners
- Contribute to other financial related issues: external audit, internal audit, meetings...

Required Qualifications:

- A degree in accounting, financial management, business (Bachelor/Master),
- At least three years of recent and relevant finance and accounting work experience.
- Familiar with Lao accounting rules and principles as well as with GAAP standards
- Comprehensive computer skills in Excel and other software packages.
- Experience with computerized accounting packages is required.
- Fluency in English - written and spoken
- Familiarity with government and international aid project operations. Especially relevant, experience with Global Fund, World Bank or other grant/loan/donor funded projects will be advantage.
- Tolerant and patient when working under difficult and demanding conditions.
- Experience as a Trainer and in using training methodologies,
- Open to learn new techniques.
- A willingness to travel to provinces of Laos for short durations
- Self-directed and team player.

Interested candidates may obtain further information or Terms of Reference at the address below during office hours, 08:30 -16:30 hours.

The interested candidates must submit a cover letter and CV to the address below by 4 November, 2013.

Attention to: **Dr. Chanmy Sramany**
Manager of the Principal Recipient Office
Ministry of Health, Lao PDR
Tel.: 856 21 242980
Fax.: 856 21 242981
E-mail: chanmy.sramany@theglobalfundlao.org
Cc: khampiew@theglobalfundlao.org
Only short listed applicants will be contacted for interview.



JOB DESCRIPTION

Job title: Finance Assistant

Reporting to: Finance Officers/Finance Administrator Manager

Job purpose: Financial management of projects in VTE office

Health Poverty Action Background:

Health Poverty Action (HPA) is an international NGO, which has worked in Laos since 1994. Our mission is to support poor people in their efforts to achieve better health and well being. HPA has recently received funding from the EC and DFID for a project which aims to reduce the prevalence of malnutrition amongst children under-five years. We are now looking for motivated Lao national Finance Assistant base in Vientiane Capital.

Responsibilities

Financial responsibilities

- Manages Projects petty cash of the Vientiane Office according to rules and regulations, including managing petty books, payments and all transactions that occur in VTE Office
- Prepares monthly financial report of petty cash accounts and bank reconciliation,
- Withdraws, deposits and transfers money for field offices
- Requests for monthly bank statements
- Prepares advances according to requests by PM, TL, and CD and assists staff to clear advances as per internal regulations
- Assists Finance in audit preparation and conducting internal audit
- Ensures that all documents relating to transactions carried in VTE office are available for spot checks and any other checks to be done by either HPA HQ and external auditors
- Request to BCEL to adjust of the documents mistake
- Request banks account up date
- Scan, copy finance documents
- Assists Finance with work related to finances as required
- Perform other duties as required by Health Poverty Action

Qualifications required

- a) Bachelor Degree in Accountancy or related field
- b) Experience in financial management
- c) Good written and spoken English
- d) Computer literacy in Excel and other accounting software

Personal qualities:

- A self-managed and self-motivated person with a minimal supervision.
- A capacity to be flexible under difficult conditions.

Desirable qualities

- a) Previous experience of working with INGO or international organizations or knowledge of international standard pattern.

For a full Job Description and an Application Form, please e-mail: huvtelaos@laopdr.com or hualaajobs@gmail.com or visit the HPA Laos office: 381 Ban Phonthan Neua, Saysetha District, Vientiane, phone: 021-264960/265272 or fax: 021 264961.

Women are encouraged to apply

The closing date for applications is 07 November 2013
Only short-listed candidates will be notified.

Agenda

8:00 Registration

8:30 Opening Remarks : Minister, MPWT

8:40 Opening Speech : Vice Mayor

8:50 Opening Speech : JICA

9:00 Seminar Starting Morning Session : MPWT & KEI

(1) 9:00 – 9:40: “Role and Structure of Department of Transport and City Bus Operation and Experience in Yokohama City”

Mr. Magome Toshihiko, Head, Asama Town, Bus Operation Center, Vehicle Division, Department of Transport, Yokohama City

Mr. Ogata Shoji, Planning Division, Department of Transport, Yokohama City

(2) 9:40 – 10:20 “Private Public Transport Operation and Corporate Rehabilitation”

Mr. Isono Shogo, Executive Manager, Okayama Electric Train Company, Okayama City

10:20 to 10:40 COFFEE BREAK

(3) 10:40 – 11:20 “Bus Management by using ICT and Data, “MIERUKA (Visualization)”” (Part I)

Dr. Yajima Masaru, President of Eagle Bus, Saitama Prefecture

(4) 11:20 – 12:00: “Bus Operation by ICT, Experience in Kawagoe City (Part II)”

Dr. Sakamoto Kunihiro, Advisor, Eagle Bus, Saitama Prefecture

12:00 to 13:00 Lunch Break

Afternoon Session : Dr. Nakamura Fumihiko, Yokohama National University

(5) 13:00 – 13:40: “Bus Use Promotion and Marketing, Experiences in Student Bus Pass”

Mr. Matsudo Takayuki, Chief, Planning & Marketing Department, Keisei Bus Corporation, Chiba Prefecture

(6) 13:40 – 14:30: “Latest Bus Operation Experiences in Japan and in Vientiane”

Dr. Namura Fumihiko, Professor of Yokohama National University (YNU)

Ms. Toyama Yurie, Graduate School of Urban Innovation, YNU

14:30 to 15:00 Closing Remarks by Vientiane City

Attendant List
Meeting Topic: Bus Management and Operation Improvement in Japanese Practices and Experiences Seminar Program
Place: Ministry of Public Works and Transport
Date: 14 March 2014
Time: 08:00 - 15:00

No.	Name & Surname	Position	Organization	Telephone number	Email Address	Signature
1	Mr. Somnard Phonsena	Minister	MPWT			
2	Pro.Soukkongseng Sayalerth	President	NUOL			
3	Mr. Keophilavan Aphailath	Vice Mayor	VC			
4	Mr. Yukihiko Koizumi	Director of Department of Transportation and ICT	JICA HQ			
5	Mr. Buaphet Sayyasarn	Deputy Director Department of Transport	MPWT			
6	Dr. Bounta Onnavong	Director of Division of Planning and Budgeting	DOT,MPWT			
7	Mr. Mori Noriyuki	JICA Expert	MPWT			
8	Dr. Santisouk SIMMALAVONG	Permanent Secretary	MPWT	020-911329		
9	Mr. Phouthasay Silisak	Technical Staff	DOT,MPWT	020-28117575		
10	Mr.Dedsongkham Thammavong	Director	VTE DPWT	020-55528798		
11	Mr. Ounneua Silavong	Deputy Director	VTE DPWT	020-22222110		
12	Mr.Thongphoun	Head of Transportation Section	VTE DPWT	020-22222453		
13	Mr.Somsanith Houthongkham	Transportation Section	VTE DPWT	020-2224568		
14	Mr.Khamphoune Temerath	Director	VCSBE	020-55512183		
15	Mr.Bouapha Phetvisay	Deputy Director	VCSBE	020-55514112		
16	Mr. Vanly Chanchalern	Deputy Director	VCSBE	020-55606390		
17	Mr.Bounpone Fongmany	Deputy Director	VCSBE	020-55512185		
18	Mr.Thanongsy Dedvongsom	City Transportation section	VCSBE	020-55675122		
19	Ms. Chansouk Chanthavong	Deputy Head of Finacial provincial Transportation	VCSBE	020-55509120		
20	Mr. Punya Vilatham		VCSBE	020-54002902		
21	Mr. Bounmak Soundala	Deputy Director	Vientiane Capital Traffic Police Department	020-55510002		
22	Mr. Phoudthaphone Khodpunya	Deputy of Distict Governor	Saysetha District	020-55609771		
23	Mr. Suvanthonng Aphaiyalath	head of district Public works and Transport	Sisattanak District	020-22070671		

Attendant List

Meeting Topic: Bus Management and Operation Improvement in Japanese Practices and Experiences Seminar Program
Place: Ministry of Public Works and Transport
Date: 14 March 2014
Time: 08:00 - 15:00

No.	Name & Surname	Position	Organization	Telephone number	Email Address	Signature
24	Mr. Visay Lovanhak	Deputy head of district Public works and Transport	Chanthabuly District	020-22435605		
25	Mr. Phongsavan Inthavongsa	Deputy Head of Transport	FOE, NUOL	020-22211145		
26	Mrs. Chitpasong Luangdetmisay	Director of Chitpasong Company	Nothern Bus Terminal	020-59552222		
27	Mr. Phonsay Inthisarn	Director	Taxi Association	020-55612880		
28	Mr. Khamphet Khaivongvichit	Deputy Director	Sonteo Association	020-22438676		
29	Mr. Khochon Keomavivong	Deputy Director	VC Department of Information, Culture and	020-22423363		
30	Mr. Phoudthasone Phomvilay	Director of Division	Lao National Chamber of Commerce	020-59971128		
31	Mr. Khamphet Phonglasasy	Deputy Drainage Section	VUDAA	020-55889210		
32	Ms. Sulidavan Keovilayvan	Deputy Head of Investment Section	VC Department of Planning and Investment	020-55619695		
33	Ms. Silisavan	representative	French Embassy	020-55818283		
34	Mr. Buahoan Sengkhamyong	CTA	UN-HABITAT	020-22226005		
35	Dr. Akiko Kishiue	PFA	JICA Laos			
36	Mr. Toda	Team Leader	JICA Study Team			
37	Ms. Mishima		JICA Study Team			
38	Mr. Murakami		JICA Study Team			
39	Mr. Shimegi		JICA Study Team			
40	Mr. Yashiro		JICA Study Team			
41	Mr. Chanthala		JICA Study Team			
42	Mr. Sithiphon		JICA Study Team			
43	Ms. Palitda		JICA Study Team			
44	Mr. Toshihiko MAGOME		Yokohama City			

Attendant List

Meeting Topic: Bus Management and Operation Improvement in Japanese Practices and Experiences Seminar Program
Place: Ministry of Public Works and Transport
Date: 14 March 2014
Time: 08:00 - 15:00

No.	Name & Surname	Position	Organization	Telephone number	Email Address	Signature
45	Mr. Shoji OGATA		Yokohama City			
46	Mr. Masaru YAJIMA		Eagle Bus			
47	Mr. Kunihiko SAKAMOTO		Eagle Bus			
48	Mr. Paul LULEWICZ		Eagle Bus			
49	Mr. Takayuki MATSUDO		Keisei Bus			
50	Mr. ISONO Shogo		Ryobi			
51	Prof. Fumihiko NAKAMURA		Yokohama National University			
52	Ms. Yurie Toyama		Yokohama National University			
53	Mr. Phokhaysavanh	Japanese Interpreter				
54	Mr. Phunthapaharp	English Interpreter				
55	Ms. Phetsamone	Journalist	Vientiane Mai Newspaper			
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Lao People's Democratic Republic

Peace Independence Democracy Unity Prosperity

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Minute Record of Seminar On 14 March 2014

Bus Management and Operation Improvement in Japanese Practices and Experiences.

The seminar was remarked at 9:00 A.M, on March 14 2014, at the meeting room 1 of MPWT; under the chairman of Mr. Somnard Phonsena, Minister of MPWT; Mr. Keophilavan Aphailath, Vice Mayor of Vientiane Capital; Mr. Yukihiro Koizumi, Director of Department of transport and ICT, JICA; Mr. Hideyuki Onishi, Consultant of Japanese Embassy in Laos; the honourable guests representative from Yokohama and Okayama cities; Keisei Bus company; Eagles Bus company; Yokohama National University; experts of JICA Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise; the relevant representatives from NUOL, MPWT, DPWT, significant sections and organizations attended.

The seminar began with an explanation of the Role and Structure of Department of Transport and City Bus Operation and Experience in Yokohama City by Mr. Magome Toshihiko, Head, Asama Town, Bus Operation Center, Vehicle Division, Department of Transport, Yokohama City and Mr. Ogata Shoji, Planning Division, Department of Transport, Yokohama City; Private Public Transport Operation and Corporate Rehabilitation by Mr. Isono Shogo, Executive Manager, Okayama Electric Train Company, Okayama City; Bus Management by using ICT and Data, "MIERUKA (Visualization)" (Part I) by Dr. Yajima Masaru, President of Eagle Bus, Saitama Prefecture and the explanation on Bus Operation by ICT, Experience in Kawagoe City (Part II) by Dr. Sakamoto Kunihiko, Advisor, Eagle Bus, Saitama Prefecture. In the afternoon session was Bus Use Promotion and Marketing, Experiences in Student Bus Pass by Mr. Matsudo Takayuki, Chief, Planning & Marking Department, Keisei Bus Corporation, Chiba Prefecture; Latest Bus Operation Experiences in Japan and in Vientiane by Dr. Namura Fumihiko, Professor of Yokohama National University (YNU). After all presentations were finalized, the participants shared their points of view, recommendations and exchanged the lesson among the members of meeting. In the end, Mr. Keophilavan Aphailath, Vice Mayor of Vientiane expressed the significant recommendation and conclusion for the meeting which has the following details:

Speaker	Contents	Remark
Mr. Keophilavan	After an explanation and experience were shared by Yokohama and Okayama cities and also the presentations of all bus companies that had given the significant information especially for transportation sector, because the data that was received is the real experience and has been implemented in Japan. Those are the great lesson for us to study and carry out on suitable way in VCSBE.	
Mr. TODA	Mr. TODA was a representative of JICA expert team expressed in this impressive seminar and also proud to transfer the technology to Lao. Finally Mr. TODA concluded the details as follow: <ol style="list-style-type: none"> 1. The data and information received will be useful on development of transportation system in Vientiane. 2. The information is very useful for urban development as well as transportation development. 3. The idea will be highly benefit for tourism development together with transportation improvement 	
Mr. Khamphoun	Mr. Khamphoun asked Yokohama Bus Company representatives about income tax that the company has to pay to the government. <ol style="list-style-type: none"> 1. Do the bus companies have to pay or free tax? 2. Fuel price is the main factor increasing the company expenditure. 	
Yokohama Bus Company representative	Yokohama Bus Company representatives answered that : <ol style="list-style-type: none"> 1. For the private bus companies are required to pay for income tax. However, for the state bus enterprises do not have to pay for the income tax. 2. To decrease the expenditure of the company, it is considered to reduce staff salary. In addition, adjusting the route system become systematical to reduce unnecessary number of drivers. 	
Mr. Keophilavan	Vice Mayor Mr. Keophilavan questioned to the relevant participants on the bus fare setting in Yokohama City	
Yokohama City Representative	The representative from Yokohama City explained that the bus fare was defined by Yokohama City and propose to the Central Bank to approve.	
Mr. Buaphet	The Deputy Director of Transportation Department had agreed with the explanation and he also attent to Yokohama City on bus service that: <ol style="list-style-type: none"> 1. Is there only one company operating in Yokohama City? 	