23-1.3.6.3 Intersection Geometry

Intersection capacity analysis was carried out to identify critical movements that controls signal duration at the intersection and determine signal phase sequence that minimizes the total intersection volume/capacity ratio.

Chui-Fuchik intersection is a four-leg intersection. The lane assignment along Chui Street (east-west direction) is schematically presented below. Movement in all directions (left turn, through and right turn) is allowed from both east and west approaches. Each lane is dedicated to one movement. There is no shared lane where two movements (through and left turn movements, for example) share the same lane.

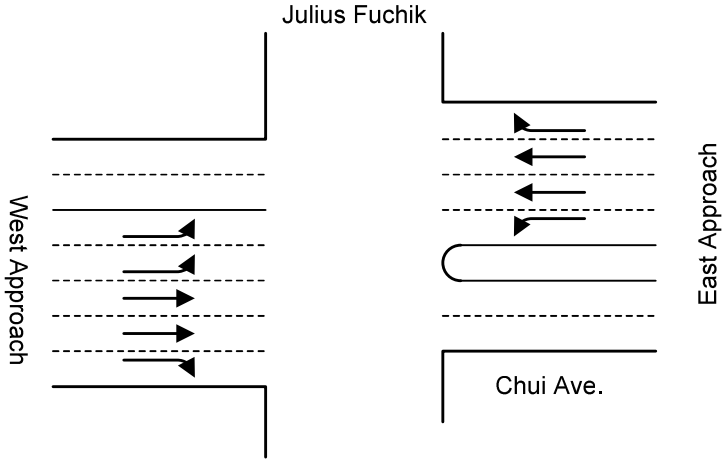


Figure A 23-1.3-4 Lane Assignment

23-1.3.7 Signal Design Development

23-1.3.7.1 Volume/capacity Ratio

Volume of each movement (through + right turn and left turn) is summarized in the table below. Using the standard lane capacity of 1800 vehicle/hour, V/C ratio is calculated and results are shown in the table.

Table A 23-1.3-3 Volume and V/C ratio

		West Approach		East Approach	
		TH+RT	LT	TH+RT	LT
Volume (AM)	PCU/hour	1,990	810	1,122	194
Volume (PM)	PCU/hour	1,811	972	1,251	128
Capacity	PCU/hour	5400	3600	5400	1800
V/C ratio (AM)		0.37	0.22	0.21	0.11
V/C ratio (PM)		0.34	0.27	0.23	0.07

TH : Through RT : Right turn LT : Left turn

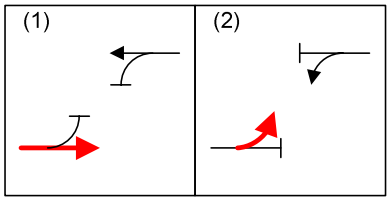
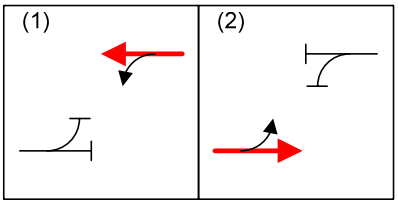
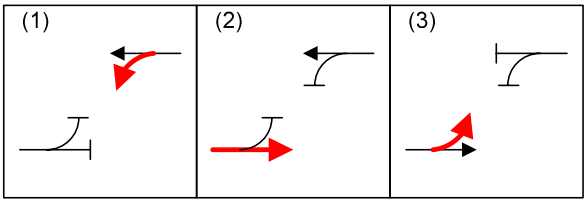
The lower the total V/C ratio for all phase sequences, the better and less congested the signal operation at an intersection. If total V/C exceeds 1.0, it means that volume is larger than capacity and congestion or queue is unavoidable.

Critical movement is the movement that has the highest V/C ratio among the movements that is allowed in a phase. Critical movement requires the longest green time to discharge among the movements concurrently allowed. Phase duration must be equal to or longer than the duration for critical movement to prevent congestion.

23-1.3.7.2 Phase Sequence

Three phase sequences shown below as option (a), option (b) and option (c) are considered and compared.

Table A 23-1.3-4 Phase Sequence Options

Option	Type	Sequence
(a)	Standard 2-phase sequence (lagged left turn)	
(b)	Alternate approach	
(c)	Lead-lag left turn	

The critical movement at each phase sequence and its V/C ratio is shown in table below for Phase Sequence Options (a), (b) and (c). The critical movements are also shown in red wide line in the figure above. As the critical movements are same for both AM and PM periods, only one figure is shown for each phase sequence.

Table A 23-1.3-5 Volume / Capacity Ratio and Critical Movements

Phase Option	AM/PM	Volume /capacity			
		Phase 1	Phase 2	Phase 3	Total
(a)	AM	0.37	0.22		0.59
	PM	0.34	0.27		0.61
(b)	AM	0.21	0.37		0.58
	PM	0.23	0.34		0.57
(c)	AM	0.11	0.15	0.22	0.48
	PM	0.07	0.15	0.27	0.50

The table above shows that Phase Sequence (c) produces smallest total V/C ratio for traffic in east-west direction for both AM and PM periods. Phase sequence (b) is second smallest and Phase Sequence (c) produces largest total V/C ratio. This means phase sequence option (c) is most efficient and congestion is less likely. Thus phase sequence option (c) was selected.

23-1.3.8 Time of day control

The new local controller has time-of-day control function, in which different signal timing is applied according to the time of day. A day was divided into several time zones and different timing parameter was set and applied to each time zone based on the traffic count survey data. The local controller installed has a GPS based clock so that accurate time is always available. Concept of time-of-day control is shown below.

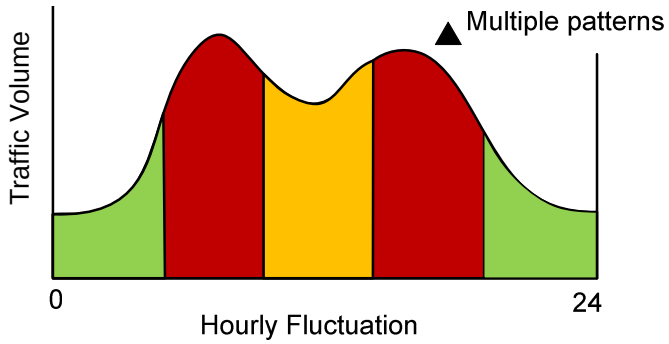


Figure A 23-1.3-5 Time of Day Control

Coordination between signals at Chui-Fuchik and Intergelpo intersections is also made based on the exact time provided by GPS clock so that no linking cable is required between two signals.

23-1.3.8.1 Vehicle Actuation

Vehicle actuation is one of the signal control technologies that flexibly extends or shortens the green signal according to vehicle arrival at intersection. As a result, green signal is not wasted but efficiently utilized. As the traffic count data shows the small number of left turn from east approach, green signal in Phase (1) of phase sequence option (c) will be set as actuation phase.

A vehicle detector will be installed at left turn lane on the east approach. It detects arrival of left turn vehicle during left turn phase. If no arrival of left turn vehicle is detected, green signal is terminated and signal advances to the next phase. On the other hand, left turn green signal will be kept on as long as there is a left turn vehicle until green signal reaches preset maximum duration. Mechanism of vehicle actuation is shown below.

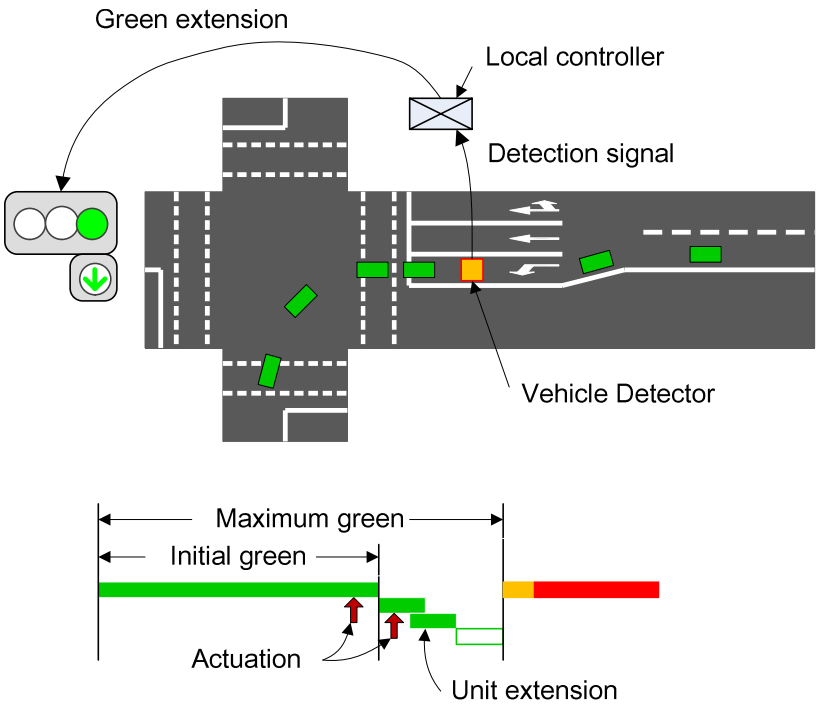


Figure A 23-1.3-6 Vehicle Actuation Mechanism

23-1.3.9 Drawings Approval

Full set of drawings was prepared by the specialists of Bishkek Main Architecture Department. Pilot Project site General Plan was approved by the Chief architect of Bishkek city and head of Road Inspection Department of CMOD. Also Intersection General Plan was approved by the representatives of every department which has Utilities passing through the site (Bishkek Trolleybus Department, Bishkek Water Supplying Department, Bishkek Gas Supplying Department, Heating Supply Company "Bishkekteploset", City Sewer Department, Communication department of the National Security Committee). After getting all of the approvals the whole set of drawings were transferred to a local contractor for the works implementation.

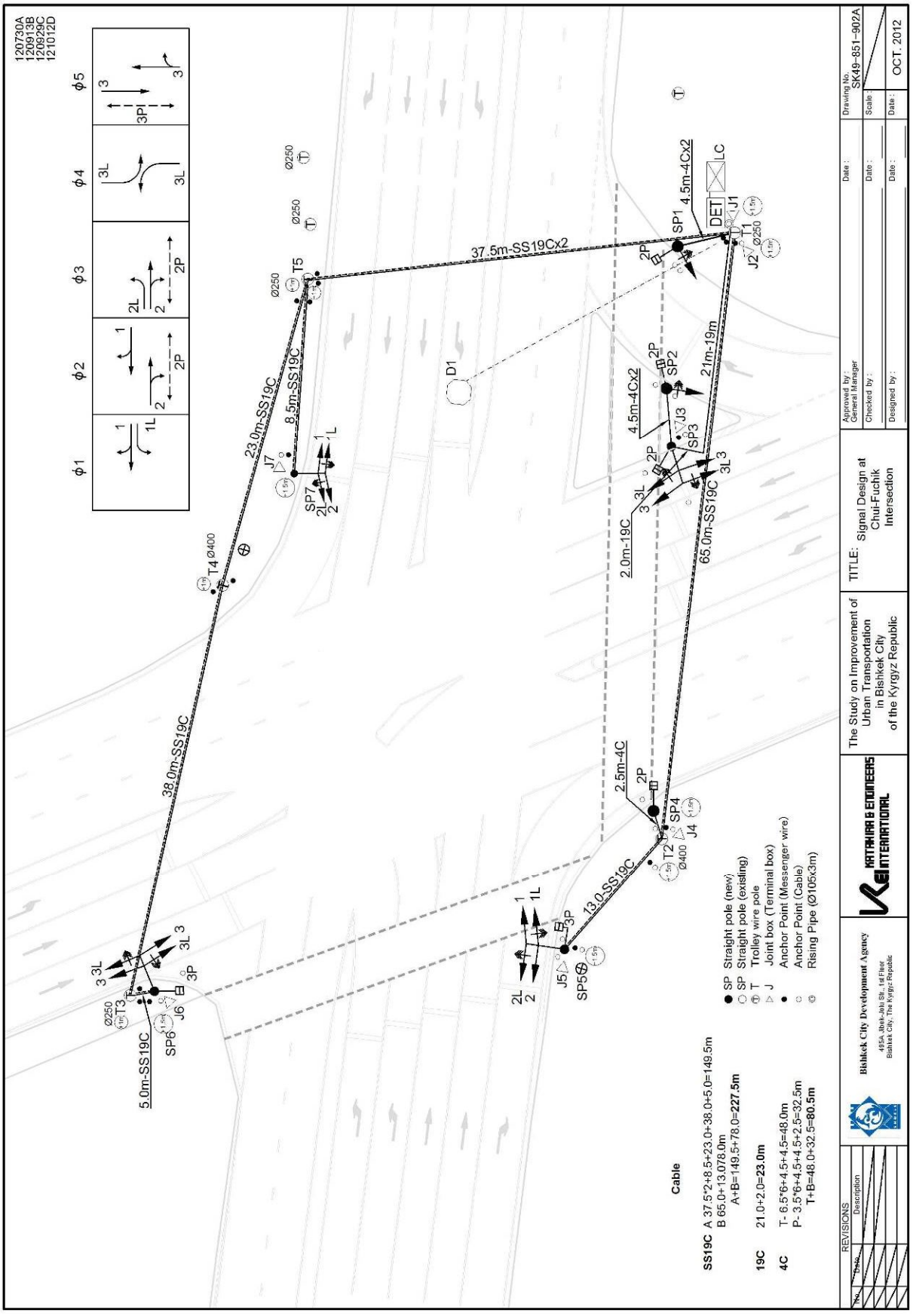


Figure A 23-1.3-7 Signal Design at Chui-Fuchik Intersection

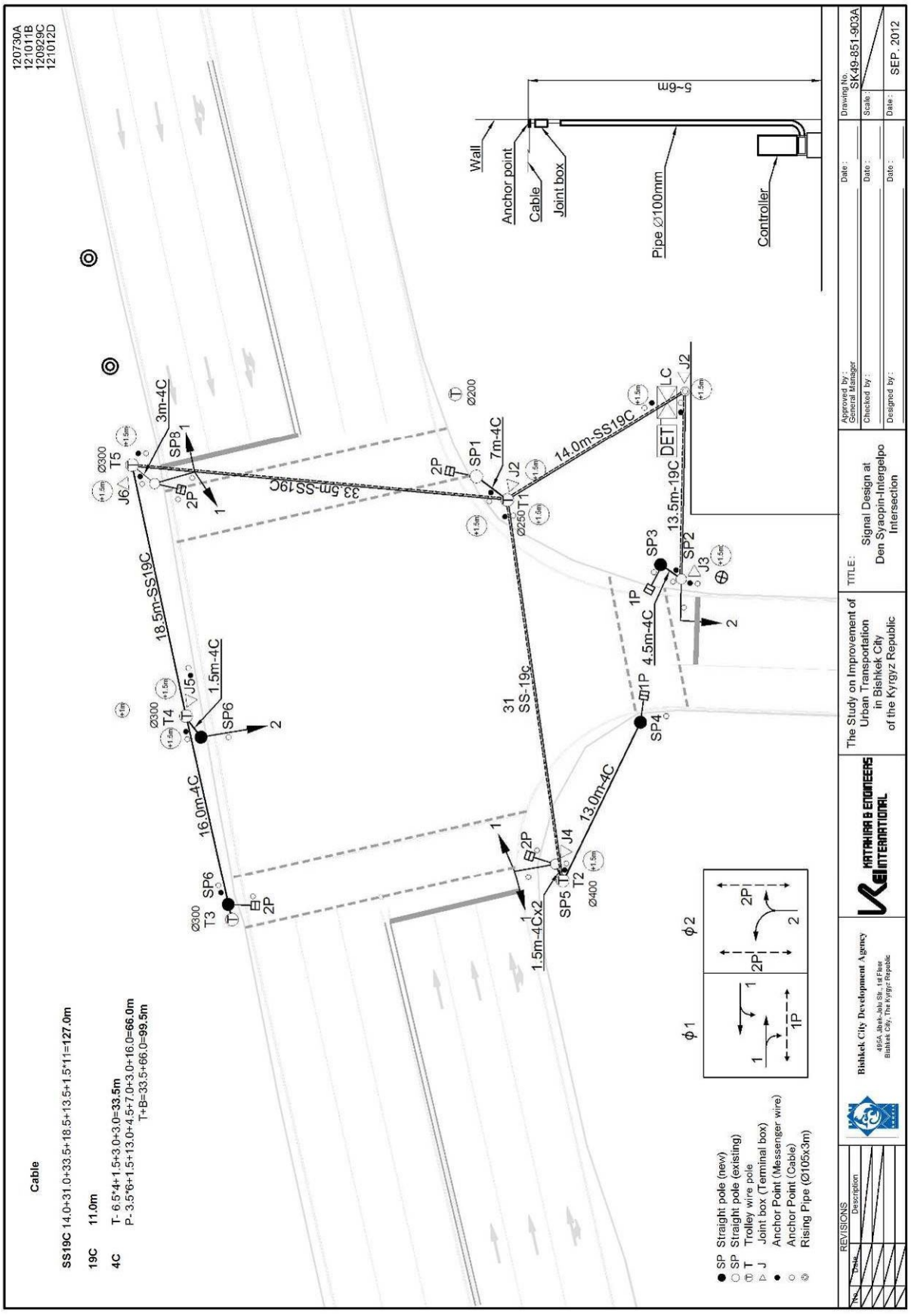


Figure A 23-1.3-8 Signal Design at Intergelpo Intersection

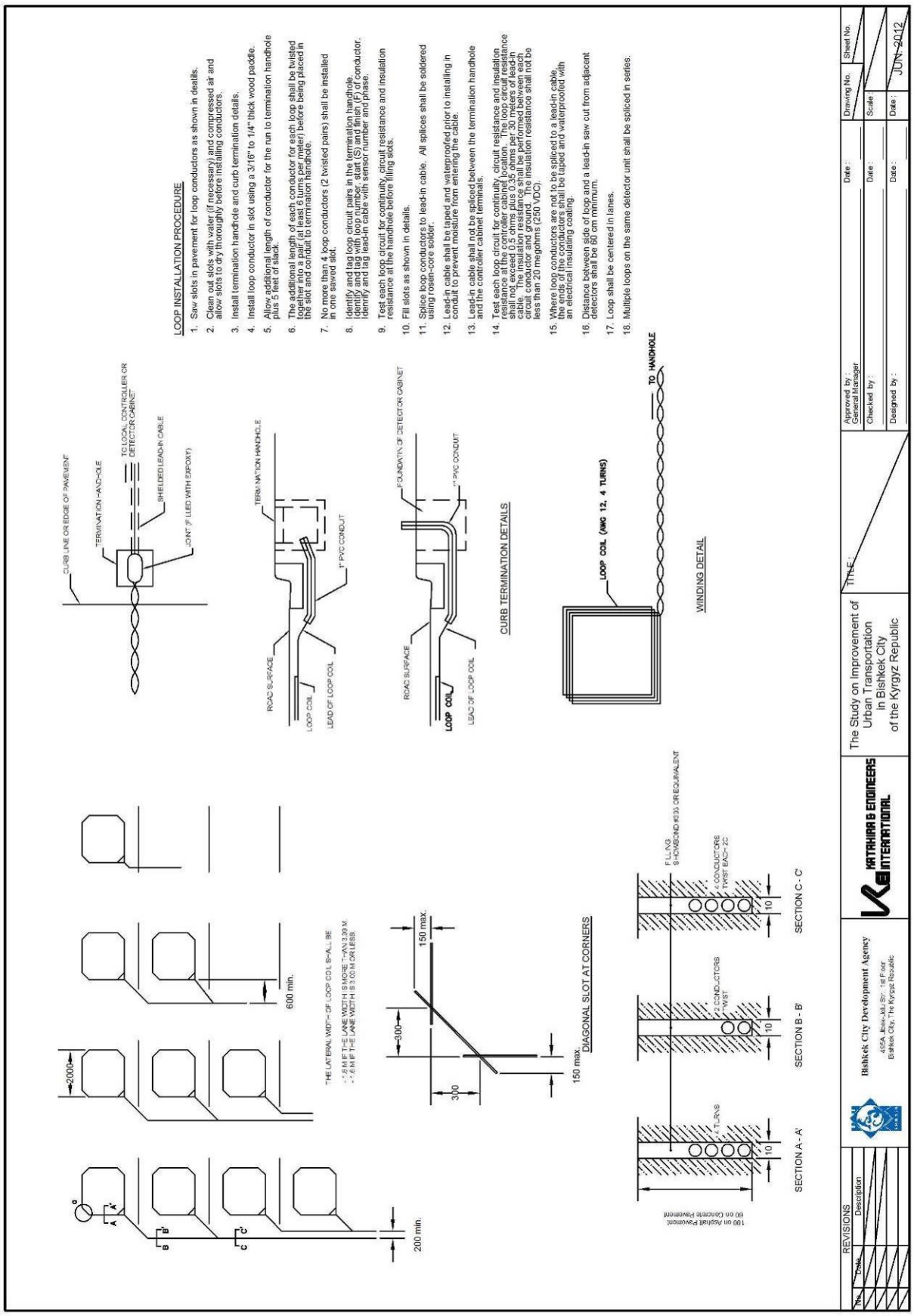


Figure A 23-1.3-9 Inductive Loop Vehicle Detector Design at Chui-Fuchik Intersection

23-1.3.10 Equipment

With a view to improve traffic system on Chui-Fuchik and Intergelpo-Dan Syaopina intersections, Japanese side has purchased and provided the following equipment and materials: local controllers, traffic signal cables, inductive loop vehicle detector and mounting equipment – purchased from Japan; transport and pedestrian lanterns – purchased from China (according to the request of CMOD).

In order to provide proper mounting work, maintenance and repair of the above mentioned equipment there were also provided 4 personal sets of tools for the electricians; 1 tool set for the mechanic - engineer and 1 tool set for the common usage.

The list of proved equipment and materials as well as the list of instruments please see further.

Picture A 23-1.3-1 Equipment and Materials Delivery to CMOD Warehouse

Table A 23-1.3-6 List of Equipment and Materials

No.	Description	Part Number	Q'ty	Unit	Chui-Fuchik	Intergelpo	Remarks
101	Traffic Signal Controller	CF9100A 12H4711	1	set	1	0	
102	Traffic Signal Controller	CF9100A 12H4712	1	set	0	1	
103	Connection Box	DE1200A	1	set	1	0	
104	Connection Box	DE1200B	1	set	0	1	
105	Pedestal	DE1210A	2	set	1	1	
106	Control Power Unit	type 200V	1	set	-	-	Spare Parts
107	SSU Unit	type 200V	1	set	-	-	Spare Parts
108	Joint Box	KIT-DC3-21P	17	set	7	6	
109	Signal Cable	SVV-SS	300	m	227.5	127	1.25SQ 19C
110	Signal Cable	SVV-SS	100	m			1.25SQ 19C
111	Signal Cable	SVV	100	m	23	11	1.25SQ 19C
112	Signal Cable	SVV	50	m			1.25SQ 19C
113	Signal Cable	SVV	400	m	81	100	1.25SQ 4C
114	Vinyl Electric Wire	EM-LMFC	200	m	200	-	Coil (3.5SQ Black)
115	Vinyl Electric Wire	IV	300	m	20	20	Ground Connection
116	Bind Wire	1.2мм black	300	m	150	150	Signal Cable
117	Earth Rod	A+B	4	set	2	2	
118	Metal Band	TBVD-8	11	set	0	6	pole φ89
119	Metal Band	TBVD-10	8	set	5	3	pole φ100
120	Metal Band	CABD-14	27	set	12	3	pole φ152
121	Metal Band	CABD-16	3	set	0	0	pole φ200
122	Metal Band	CABD-22	21	set	10	12	pole φ250,300
123	Metal Band	4BD-HC-30	7	set	4	3	pole φ400
124	Metal Fittings	14-44	30	pcs	15	13	Anchor Point
125	Metal Fittings	Single 22SQ	30	pcs	15	13	Anchor Point
126	SS Band	black	100	pcs	15	13	Anchor Point
127	Insulator	HG	60	pcs	16	18	Anchor Point
128	Nut Bolt	M12*200	60	set	16	18	Anchor Point
131	Stainless Steel Band	SFBT-N20	100	m	18	12	SUS304 W20мм
132	Metal Fittings	SLS-2N	100	pcs	14+4	12	SUS304 W20мм
133	Metal Fittings	SFW-20	50	pcs	4	0	SUS304 21.5*22мм
134	Resin Tube	BTC-220	50	pcs	0	0	PVC 21*200мм
135	Cable Band	200 black	100	pcs	some	some	
136	Insulating Tape	18мм white	2	pcs	some	some	
137	Insulating tape	18мм black	20	pcs	some	some	
138	Insulating Tape	F-CO No.2	2	pcs	some	some	
139	Line Name Tag	NF-D-20	200	pcs	some	some	Cable
141	Hand Hall	MHM-2025	1	set			φ188* 250
142	Resin Cement		1	Box			Coil
143	Cushion Material	Poly φ13	150	m			Coil
144	Pressing Terminal	RVB 1.25-3	200	pcs			
145	Pressing Terminal	2.0-4	10	pcs			
146	Pressing Terminal	3.5-3	10	pcs			

No.	Description	Part Number	Q'ty	Unit	Chui-	Intergelpo	Remarks
147	Pressing Terminal	3.5-5	20	pcs			
148	Ring Sleeve	φ4	20	pcs			3.5m^2

Table A 23-1.3-7 List of Instruments

No.	Description	Part Number	Qty	Unit	Remarks
211	Screwdriver	"+"	4	set	
212	Screwdriver	"-"	4	set	
213	Pliers	P57-200	4	set	
214	Wire Stripper	3000C	4	set	
215	Racket Wrench	RW 17*19	4	set	
216	Wrench	H300	4	set	
217	Knife	No.500	4	set	
218	Measure	25 mm 5.5 m	4	set	
219	Safety Belt	FC-11	4	set	
220	Waist Bag	E-8	4	set	
221	Tool Holder	WA-8	4	set	
222	Tool Holder	WA-22	4	set	
223	Wago Driver	180	4	set	
224	Tool Box	SR-400	4	set	
225	Tool Box (For Common Tool)	RVBox 800	1	set	785*370*325
226	Tool Box (For Material)	SR-400	1	set	
227	Terminal Pressing Tool	FK-2	1	set	
228	Terminal Pressing Tool	AK112	1	set	
229	Analogue Insulation Earth Tester	6018F	1	set	
230	Level Tester	150 mm	1	set	
231	Trowel	150 mm	2	set	
232	Knife	Type L	1	set	
233	Spare Blade	10 pcs/set	1	set	
234	String		1	coil	
235	Chalk	white	2	pcs	
236	Chalk	white	5	pcs	
237	Multi Meter		1	set	
238	Walking Measure	B20-S	1	set	
239	Wire Grip	Type 3	1	set	
240	Cable Cutter	450	1	set	
241	Lus Cutter	ML	2	set	Metal Sheet Cutting
242	Rope	φ10 * 20 m	2	set	
243	Steel Wire	30 m	1	set	
244	Pliers	HWP250 H	1	set	
245	Nipper	N206-150	1	set	
246	Pliers	TTC150	1	set	

Table A 23-1.3-8 List of Lanterns

Procurement of Traffic Signal Lantern				
Item	**Unit**	**Chui-Fuchik**	**Intergelpo**	**Photo**
6-Aspect 300 dia. Signal	No.	8		
3-Aspect 300 dia. Signal	No.		6	
3-Aspect 200 dia. Right Turn Arrow Signal	No.	2		
2-Aspect Pedestrian Signal	No.	6	6	

All of abovementioned equipment and materials, instruments and lanterns were delivered to Bishkek and put for storage to CMOD warehouse.

23-1.3.11 Pilot Project Implementation

(1) Contractor Selection

The pilot project of Traffic Signal System Improvement is divided into 3 sections. One of 3 sections is the procurement of local controller, vehicle detector, traffic signal cables and mounting equipment. The keystones of this improvement are local controller and vehicle detector to realize a smooth traffic flow. Thus, those items are procured by Japanese contractor. 2nd section is procurement of traffic signal lantern, and 3rd section is mounting and installation of traffic signal system. 2nd and 3rd sections were carried out by local contractors.

The scheme of the contractor section is shown in **Figure A 23-1.3-10**.

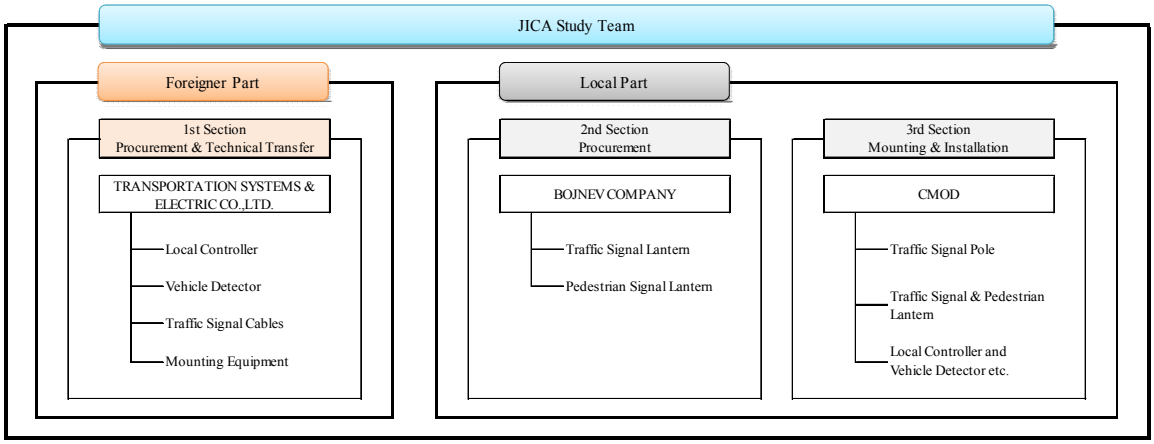


Figure A 23-1.3-10 Contractor Selection

(a) Japanese Contractor

The contract amount and summary of 1st section is shown below.

Table A 23-1.3-9 Summary of Contract of Pilot Project of Traffic Signal System Improvement

Items	Description
Project Name	Traffic Signal System Improvement
Local Contractor	TRANSPORTATION SYSTEMS & ELECTRIC CO.,LTD.
Construction Cost	USD 142,228 (USD 1=79.45, July)
Work Period	From 20 July, 2012 to 30 November, 2012
Location	Cui – Fuchik and Intergelpo Intersection

(b) Local Contractor

The contract amount and summary of 2nd & 3rd section are shown below.

Table A 23-1.3-10 Summary of Contract of Pilot Project of Traffic Signal System Improvement

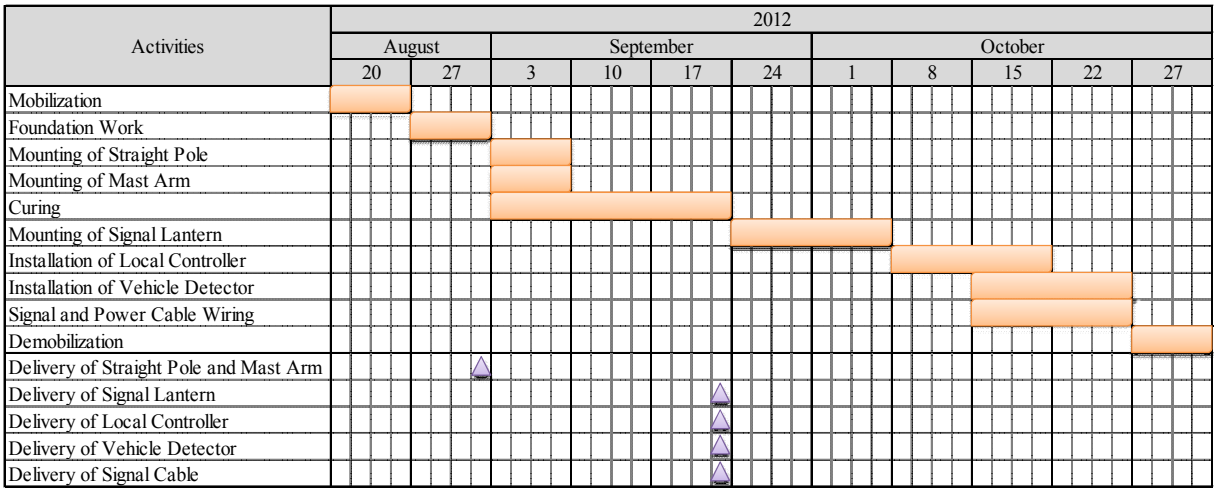
Items	Description	
Section	2nd Section	3rd Section
Project Name	Supply of Traffic Signal Lanterns & Accessories	Construction & Mounting of Traffic Signal System
Local Contractor	Bojnev Company	Construction Mounting Department of Domestic Affairs
Construction Cost	USD 14,567.00	USD 50,270.00
Work Period	From 27 July, 2012 to 31 August, 2012	From 20 August, 2012 to 31 October, 2012
Location	-	Chui – Fuchik and Intergelpo Intersection

(2) Construction

(a) Construction / Implementation Period

According to the Working Schedule proposed by the Local contractor, site works started from 20th of August with mobilization of equipment and manpower. Main construction-mounting works were

terminated within September 2012. Total completion of the works was October 31st 2012. Officially Chui-Fuchik opening ceremony was held on 9th of November 2012 by the Mayor of Bishkek Mr. Omurkulov I.S. Also in the Opening ceremony participated: the Chief representative of JICA in Kyrgyz Mr. Oyama, deputy director of BCDA Mrs. Abdyldayeva G.O., Head of Lenin District Administration Mrs. Omurbekova A.S. and others.



Note : Works indicated by * is not within the scope of the works by the Contractor.

Figure A 23-1.3-11 Construction Schedule

Picture A 23-1.3-2 Chui-Fuchik Intersection Opening Ceremony

(b) Construction Stage

Site work implementation started from the preparation of the holes for new signal poles installation on Chui-Fuchik intersection and controllers concrete foundation establishment on both intersections. Local controller on Chui-Fuchik intersection is planned to be shifted to a new place. Existing controller is installed at South-West side of intersection, but new controller will be set up at South-East side. The relocation was made to make the feeder cable shorter and avoid crossing of drainage running across the intersection. In order to implement replacement the new schema of power supply was designed. On Intergelpo-Dan Syaopin intersection new controller will be installed just next to existing one. After concrete work for the foundations of controllers, new traffic signal poles were installed. It should be noted that existing controller and traffic signals were keep on operating during the construction works at the site. It was disconnected only after new system was taken into operation.

After new signal poles were installed, Contractor has started to set up the signal cable on both intersections. As soon as signal cable was set up, mounting works of the traffic and pedestrian lanterns began. Then Controller box and Connection box were mounted on to the foundation. All of the traffic signals were connected to the local controllers on both intersections. Simultaneously on Chui-Fuchik intersection vehicle detector was installed and connected to local controller.

After mounting and connecting the whole system it was tested within 2 days. Then existing traffic control system was shut down and demounted. New system started to operate in normal mode according to its program.

JICA Study team experts were implementing monitoring while construction works on Chui-Fuchik and Intergelpo-Dan Syaopin intersections. During the site visit they were doing visual observation and quality control of the work. If it was necessary Japanese experts instructed Local contractor in order to provide proper work implementation. For the purpose of report there were numerous of pictures made.

1. Excavation for Traffic Signal Pole

The Contractor excavated 6 holes at Chui-Fuchik IS and 4 holes at Intergelpo IS.

2. Installation of Traffic Signal Pole

6 new traffic signal poles were installed at Chui-Fuchik IS, and 4 new traffic signal poles at Intergelpo IS.

3. Fundation of Local Controller

The fundations of local controleer were constructed at both intersections.

4. Wirering of Traffic Signals

The cables were installed by using trolley bus cable.

5. Installation of Lanternes

4 types of traffic signal lanterns were installed at both intersections.

6. Installation of Local Controller

After insttalattion of local controller, signal control functions were seted up.

Picture A 23-1.3-3 Construction Photos

23-1.3.12 Monitoring

After Pilot Project implementation on Chui-Fuchik intersection it is planned to conduct monitoring survey to asset work efficiency. Total about 50 persons, including chief engineer, are going to be involved into monitoring survey. Monitoring survey is to be in 2 stages: 1st stage – November 2012, 2nd stage – April 2013. The overall evaluation of Pilot Project Implementation will be given based on the results of the monitoring. Total work quantity includes the following items:

- ✓ Traffic count by direction ;
- ✓ Traffic queue measurements ;
- ✓ Travel Time survey (GPS) ;
- ✓ Signal Circle Survey ;
- ✓ Public Opinion Interview (bus stop and intersection).

23-1.3.13 Conclusion

As a result of Pilot Project implementation on Chui-Fuchik and Intergelpo-Dan Syaopin intersections there were new traffic signals installed controlling by Japanese controllers. Two intersections are synchronized with each other via GPS system in order to decrease travel time. Pedestrian passes are equipped with animated lanterns.

Traffic signals are managed by a new local controllers equipped with microprocessor unit (MPU, computer), multi-program system (LSI, IC) and GPS receivers. The multi pattern system is utilized to provide proper operation depending on traffic flow density. New system is more efficient comparing to those installed all around the city. Also vehicle detector was installed on the Chui-Fuchik intersection. It detects coming vehicles on the intersection and gives a signal to prolong green signal duration. If no vehicle is detected, green signal switches decrease waiting time in opposite direction.

23-1.3.14 Recommendation

Existing traffic signals in Bishkek City are not functioning efficiently. There are two main reasons for the inefficient signal operation. Firstly, the existing local controller has very limited function. It applies fixed signal timing plan throughout a day regardless of the traffic condition, which varies according to the time of day. It is also not capable of adjusting signal timing within a cycle to cope with the fluctuation of vehicle arrival at intersection.

Secondly, engineers in CMOD and other departments in charge of traffic management are not familiar with the traffic engineering in general and signal control in particular, although they have good knowledge and understanding of electronics and equipment installation work. This is probably due to the fact that existing local controller lacks functionality as explained above so that there is almost

nothing to adjust to improve the operational efficiency of signal.

The facts above indicate that there is a large potential of improvement by introducing new signal with the sophisticated functions such as time of day control and vehicle actuation. If new signal is introduced to other key intersections, along arterial street with high traffic volume, or even as area traffic control system in which all signals are controlled from a traffic control center, traffic conditions in the city will be much eased and negative impact of traffic congestion such as delay and excess emission of pollutants will be minimized. Traffic condition of the city has reached to the state that warrants introduction of new signal system. The counterpart agencies has the capacity of managing the project if technical assistance is properly provided.

23-1.4 Pedestrian Mall Social Experiment

23-1.4.1 Objective

To enhance pedestrian prioritized traffic safety manner together with the pilot project on Chui-Fuchik intersection improvement, the City decided to conduct the first pedestrian mall in Bishkek as a social experiment of the second study year. The Steering Committee of Bishkek City and the JICA Study Team agreed to combine the traffic safety campaign with the pedestrian mall. The Pedestrian Mall was implemented on Kievskaya Street on 16 September as one of the JICA Study Social Experiments. Objectives of the pedestrian mall social experiment are summarized below.

(a) To enhance traffic safety awareness of Bishkek citizens, especially for "children's traffic safety" by combining annual traffic safety campaign held in September in Bishkek City.

(b) To advocate pedestrian prioritized traffic manner, as a synergic effect in the public awareness and engineering approaches, being together with the pilot project of Chul-Fuchik intersection improvement.

(c) To promote economy in shops at the center of the city by festive pedestrian event and by omitting car from the street.

(d) To advocate relationship between Eco-friendly transport and safety drive to preserve nature.

(e) To create opportunities to communicate and build networks among people and organizations through the event.

(f) To create tourism attraction resources in Bishkek City.

(g) To present Japanese culture and JICA activities in Kyrgyzstan and the celebration of 20th anniversary of Japan-Kyrgyzstan diplomatic relation.

23-1.4.2 Achievements of the Pedestrian Mall

(1) Traffic Safety Campaign for "Children"

It is difficult to educate traffic manner to adults as all traffic relevant organization mentioned from their experience. Therefore, traffic safety awareness activity targeted on "children first". It is said "If you educate children, you will educate their parents. If you educate parents, you will educate drivers."

(2) Pedestrian Prioritized Traffic Manner

To protect and secure citizens life from traffic accident, it is effective to insist pedestrian prioritized traffic manner by implementing enjoyable event like the Pedestrian Mall. People express less awareness to pedestrian safety than the surrounding countries of Kyrgyz. The event contributed to change the behaviors through publicity and education.

(3) Promotion of Economy in the Center of Bishkek City

There are fewer visitors in the center of Bishkek City, comparing to bazaars located in the city surrounding

areas: The economy of the city center worsens and commercial activities decline. The Pedestrian Mall created people's gathering places on the Kievskaya Street in order to promote shop sales along the street.

(4) Eco Friendly Transportation

Transportation policy today is shifting from motorization to environmental friendly and low Green House Gas (GHG) emission transportation at global level. To achieve the world level challenge, it is important to advocate public awareness for eco and safety drive. The Pedestrian Mall conducted education of eco and safe driving manner, and observance of traffic rule on the road and intersection through events and dissemination of brochures.

(5) Building of Participant Communication Network

To revitalize the city and to foster creativity of citizens, it is effective to provide an opportunity for the citizen to encounter new attraction and communicate among different types of people. One of the elements of activation of city is to facilitate creating new business and industry by promoting urban diversity. The Pedestrian Mall organized to be a catalyst to build people and business network by providing an opportunity to work and meet together.

(6) Urban Tourism Creation

In the case of overseas, car-free shopping malls or streets are the parts of their tourism attraction for visitors. It is possible to create tourism attraction by citizens together with making use of existing historical cultural asset and nature. The Pedestrian Mall was an example of the potential tourism event and to create an opportunity to invite tourists to Bishkek City.

(7) Introduction of Japan

The 2012 was the 20th anniversary of Japan - Kyrgyzstan diplomatic relation. The Pedestrian Mall presented Japanese culture such as origami demonstration, traditional Japanese dance (Yosakoi-soran) and Japanese traditional dram (Oedo-Daiko) play as one of the celebration event of that. In addition, introduction of JICA activities in Kyrgyzstan by panel exhibition was conducted during the Pedestrian Mall implementation.

23-1.4.3 History of Pedestrian Mall and example of other countries case

In Japan Pedestrian Mall ("HOKTEN" in common name in Japanese) was started in Ginza, Tokyo and other cities. The aims of Pedestrian Mall are 1) to provide pedestrians enjoyable, comfortable and secure space for shopping to energies shop sales, 2) To mitigate traffic pollution such as vehicle emission and noise, 3) To advocate pedestrians prioritized traffic manner to the public. In addition, some of the pedestrian malls are also well known as a tourism spot. The contents of pedestrian mall is different depends on the location and implementation body. Same kinds of activities are conducted all over the world such as New York, USA, Stroget, Denmark, Bogota, Colombia and so on. The following table is shown some examples.

Similar to pedestrian mall, Car Free Day and Mobility Week are also conducted in several countries mainly in

Europe. The aim is to omit private car from the City Center to increase public transportation use and non-moralized transportation means use. By implementing the event, people can realize that their life can sustain with minimum car use and negative effect of moralization such as traffic congestion, air and noise pollution.

Table A 23-1.4-1 Example of Pedestrian Mall in the world

	Name and location of pedestrian mall	Contents	Note
1	Ginza Tokyo, Japan	The first pedestrian mall in Japan and well known as a tourism spot.	Event is not allowed to be held on the pedestrian mall. Only tables and chairs are provided.
2	Obihiro City, Hokkaido Obihiro Hokoten	Started in 2006 to revitalize central part of the on Obihiro City, Hokkaido. Food shop, dance, handicraft, hobby group activities are participating in the event. The event is organized by Obihiro Town Hokoten Committee. Bus discount ticket gift service to first 100 arrivals to enhance bus use.	
3	Sannomiya central street Kobe City, Japan	Hokoten and open café are set up to increase pedestrian circulation in the center of the city 11:00-18:00 May and October Since 2006 Social experiment was conducted together with street concert in 2004 and 2005, the result was around 50% of visitors answered that improve circulation of pedestrian and modal sift from car to public transportation was increased.	
4	5th Avenue new York	Every Saturday since 1970	Provide chairs to pedestrian on the street.
5	Stroget street, Copenhagen, Denmark	One of the most popular tourism spot in Denmark. Open every day. Street performance	It is considered as the first pedestrian mall in the world, started since 1953.
6	Asahikawa Heiwa Street Shopping Park	Started in 1970 as a social to advocate pedestrian prioritized traffic awareness and to energize the shopping street.	The first permanent pedestrian mall in Japan.
7	Center of cities, Bhutan	Pedestrian's day every Thursday car is not allowed to enter the center of the cities. Walk, bicycle and public transportation only.	To advocate environmental protection awareness.
8	Ciclovia Bogota Colombia	Open to non motor vehicles such as bicycle, skate board, roller skate, and pedestrian on every Sunday 7:00-14:00	

23-1.4.4 Detail of the Pedestrian Mall Implementation

23-1.4.4.1 Event Implementation Data

(1) Date : 10:00-22:00 16th September 2012

(2) Target Area : Kievskaya Street from Isanova street to Logvinenko street

(3) Main Events : The following five events' blocks were prepared at Kievskaya Street and various shop, show, exhibition and workshop were set up during the pedestrian mall.

- ✓ Traffic Safety Block
- ✓ Sports Block
- ✓ Art Block
- ✓ Dance Block
- ✓ Music Block

Photo Opening Palade by Young Traffic Police

In addition to above events, environmental and traffic awareness video and audio contest prize award was held after closing the above mentioned block events with attendance of H.E. Otenbaev Rosa, former president of Kyrgyzstan.

23-1.4.4.2 Main Implementation Body

The pedestrian mall preparation task team was organized by the following groups.

- ✓ Bishkek City Mayor's Office
- ✓ Bishkek City Development Agency (BCDA)
- ✓ Traffic Police (MOI : Ministry of Interior)
- ✓ JICA Study Team

In addition to above task team, the following Bishkek City divisions worked to support the event implementation.

Photo Event Opening Stage

Photo Explanation to Young Traffic Police

Table A 23-1.4-2 The Pedestrian Mall Preparation Work Demarcation by Department in Bishkek City

	Responsible department	Task
1	Pervomai district administration	Improve the facade of buildings
2	State department of interior affairs, City department of interior affairs, City Department of Traffic Safety	Block the traffic on Kievskaya st and the nearest blocks from Manas avenue till Panfilova str.
3	Same as above	Secure public safety and traffic control at the event area.
4	City Department of Traffic Safety, Municipal Parking Department	Identify parking space and control parking
5	Capital construction department	Complete road marking on Kievskaya str (from Manas av. to Panfilova str.)
6	Urban Transport Department, Bishkek Trolleybus Department, Bishkek Passenger, Bus and Transport Department	Change the routs and schedule of the public transport at the day of the event.
7	Same as above	Place the flyers and posters of the event in the public transportation
8	Public Relations Department	Organize press conferences, press releases and mass media publications.
9	Department of the advertisement of Bishkek	Identify location for banners and its further set up
10	Department of Health	Organize a medical station at the event area.
11	Department of the state anti-fire service of Bishkek	Provide fire tracks
12	Tazalyk (cleaning agency)	-Set up stages and fence them around. -Clean Kievskaya str. (from Manas st till Panfilova st with all adjunct streets from Chui st till Toktogula st) -Place dumpsters across the area. -Organize trash pickup before, during and after the event.
13	Zelenstroy (agency responsible for green spaces in the city)	To water plantations, prune bushes and cut lawns at the territory of the event.
14	Severelektro and Bishkeksvet Electrostation of the West district	Provide: - Steady electricity supply, necessary electricity spots for use during the event: - Street light in Kievskaya str. (from Manas av. till Panfilova str. and at the adjacent streets from Chui av. till Toktogula str.)
15	Bishkek City Financial Department	Provide financial support for road markings on Kievskaya str. (from Manas av. till Panfilova av.)
16	Municipal Territorial Department	Provide information about the event to the inhabitants of the event area.

Photo Bishkek City Preparation Meeting

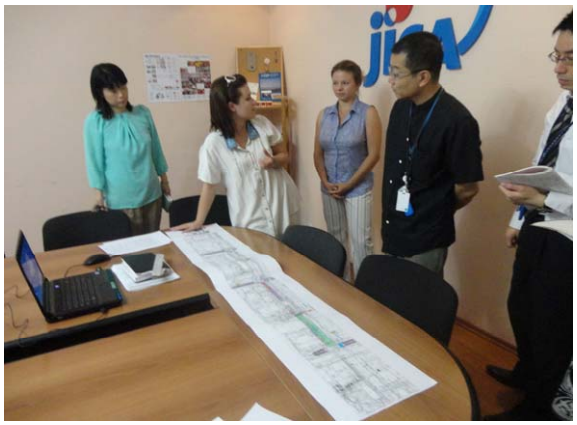


Photo Event Explanation to JICA

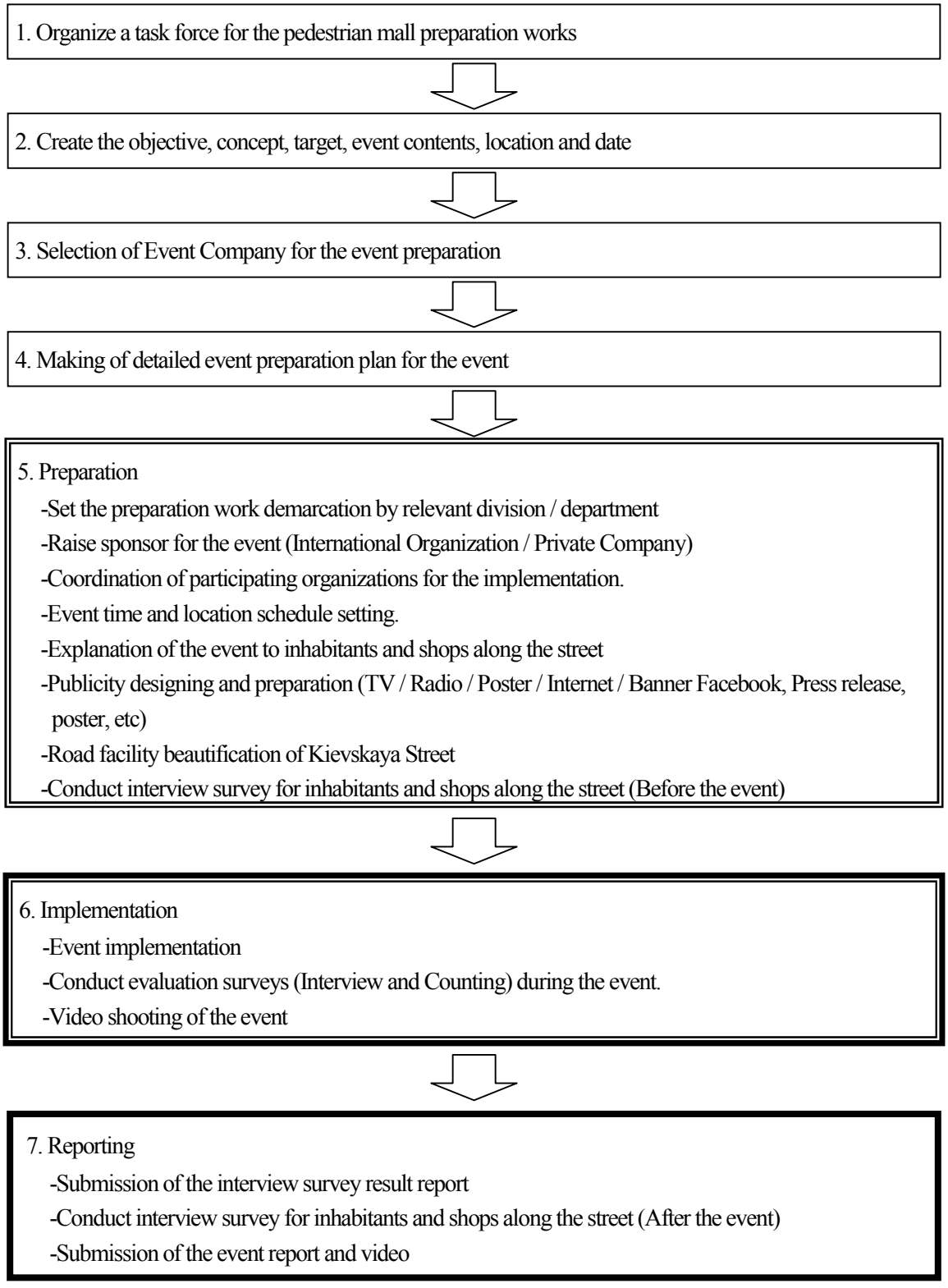
Photo Closing Traffic on Kievskaya street for the Event Preparation by Traffic Police at Midnight

Photo Event Facility Preparation on Kievskaya Street by Bishkek City Tazalyk (cleaning agency) at Midnight

23-1.4.4.3 Method and process of the event preparation

(1) Work flow

The pedestrian mall preparation process is shown below.



(2) Procedure of selection of the event company

The pedestrian mall preparation task team conducted a contest inviting JICA officials from JICA Kyrgyz office to select suitable event company for the Pedestrian Mall preparation and implementation on May 2012. Firstly, three (3) event companies in Bishkek City were selected by submitted proposal and quotation then presentation contest was held to select the final winner. The task team was evaluated each event

company by their presentation and quotation based on an evaluation form which JICA Study Team prepared for the contest. The form is shown in following **Table A 23-1.4-3**.

After the presentation, all participants agreed to choose CREATIVE TEAM Event Agency as the pedestrian preparation and Implementation Company. Some activities which suggested by other event companies were combined to the Pedestrian Mall event by making sub contract between CREATIVE TEAM Event Agency and other event company as well.

Photo Presentation of Event Company (1)

Photo Presentation of Event Company (2)

Table A 23-1.4-3 Check list for selection of Event Company for Pedestrian Paradise & Traffic safety awareness campaign

Grade: out of 10 points

Technical Evaluation	Russian Theatre	CREAT	Sun People	Remarks
1. Contents of the proposal				
a) Understanding of the aim of the event				
b) Creativity				
c) Feasibility				
d) Punctuality				
2. Work Experience				
3. Coordination Capacity				
4. Human Resource				
5. Coverage Field				
Total				

Financial Evaluation	Russian Theatre	CREAT	Sun People	Remarks
1. Cost				
2. Cost performance				
3. Items				
4. Number of necessary work force				
5. Selection of facilities and goods				
6. Preparation Schedule				
Total				

Technical and Financial Proposal **Total**				

23-1.4.4.4 Explanation and consensus to stakeholder before the implementation

Photo Visiting Shops along Kievskaya Street for the event explanation

Photo Visiting Shops along Kievskaya Street for the event explanation

Explanation of the pedestrian mall implementation for stakeholders around Kievskaya Street was conducted since few weeks before the pedestrian mall by the event company, BCDA and interview survey group. Majority of the comments on implementation of the pedestrian mall were supportive to implement the event. Some shops were worried about decrease of customer during the pedestrian mall.

23-1.4.4.5 Participating organization

The task team requested some organization to participate the event and the team also requested to invite for public advocacy activities. The following is the list of main participating organizations.

Table A 23-1.4-4 Participating organization

	Organization	Contents	Note
1	JICA / JOCV / One Village One Product Project	1) JICA activities in Kyrgyztan 2) Yosakoi-soran dance by voluntary group from JOCV 3) One village and one product project product sales	Information of scholarship to study in Japan and Japanese language class were mainly questioned during the event.
2	Japan Center	1) Oedo Dram Performance 2) Origami workshop	
3	TOYOTA	1) Traffic safety event 2) Eco-drive, water saving handout dissemination	TOYOTA is willing to participate in same kind of the event next year and asking necessary budget for the next year event to BCDA.
4	Bouncy Castle	Rock climbing	
5	Social Fund Children in Danger	1) Street cleaning with dance 2) Provide 20 event volunteers for Art block and traffic safety event 3) 100 Paper helmets for children	
6	Center for Youth and Public Initiative Development	1) 100 Paper helmets 100 Paper helmets 2) Provide 50 event volunteers 3) Eco back sales	

	Organization	Contents	Note
7	Red Crescent	1) Activities' information 2) Provide 20 event volunteers	
8	Agency for organization and conducting events under State national Russian Drama Theatre of Chingiz Aitmatov	Face painting	
9	K-2	Rock climbing	
10	Berloga	Food for event staff	
11	F&B	Food for event staff	
12	Domino	Food for event staff	
13	Sierra Coffee Shop	1) Coffee shop 2) Work shop	
14	Quest Game Actors	Question game of traffic safety	
15	Parent mastery Studio AkMe	Event for children	
16	Explorers.kg	Conduct an event for children	
17	Children magazine Library	1) Conduct a game for children 2) Magazine sale 3) Dissemination of traffic safety awareness poster	
18	Baychechekey (Office Supplies Shop)	Conduct a painting contest on road	
19	SIERRA (Coffee shop)	Sell Cookies with the event logo	
20	Stray Pet Aid Fund	Animal protection exhibition and donation	
21	Vintaj Studio	Handicraft work shop	
22	Sewing world shop	Gift for children	
23	Traffic Police Department Ministry of Internal Affairs, Bishkek City	Conduct the opening parade and march by student police.	
24	Extreme Sport Club 360 degrees	Sports performance	
25	Karaoke Club 40x40	Karaoke contest	
26	Jazz Band	Street cleaning with dance	
27	20-30 singers and teams	Music event	
28	Ё (Dance studio)	Dance event	
29	B.Style (Dance studio)	Dance event	
30	Well be Dance studio (Dance studio)	Dance event	
31	Dance studio of persons with reduced motilities	Dance event	
32	Upgrade (Dance studio)	Dance event	
33	Maya Show (Dance Studio)	Dance event	

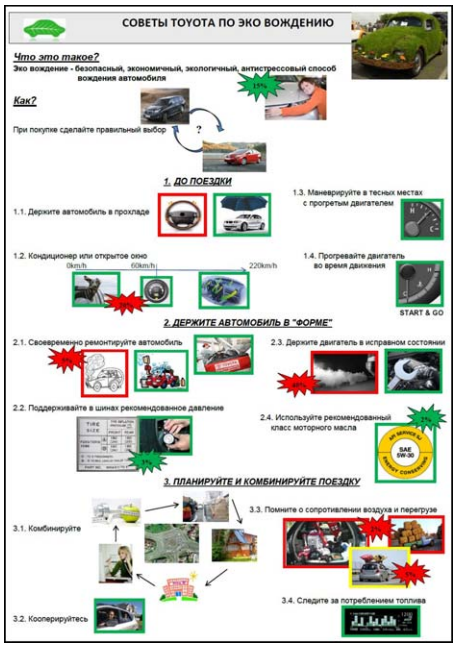


Figure A 23-1.4-1 TOYOTA Eco drive brochure (A4 Size)

Figure A 23-1.4-2 TOYOTA Water Saving Brochure

Photo Traffic Safety Education by TOYOTA

Photo Face Painting

23-1.4.4.6 Sponsor

For the pedestrian mall, the task team raised sponsors to activate the event and compensate the event expense. The task team received efficient offer from private companies, and international organizations.

The following table shows the list of main sponsors.

Table A 23-1.4-5 List of Sponsor

	Organization	Contents	Note
1	OSCE (Organization for Security and Co-operation in Europe)	1) Reflector bracelet 15,000 pcs 2) Printing for publicity (banner, poster, leaflet for traffic safety) 3) Exhibition of hybrid car (Prius)	- Offering the next pedestrian mall support - Bracelet was distributed schools in Bishkek City.
2	Grundfos (Pump maker from Denmark)	1) Gift for environmental and traffic awareness video and audio contest prize award winner (Video Camera, Camera, Digitizer) 2) Provide drawing set for children visitors 3) Provide banner s for Trolley bus advertisement 4) Reflective bracelet 5) Flash mob equipments	
3	TOYOTA	1) Donation of 2,000USDfor the following items - Advertisement hanging banner for trolley bus cable - T-Shirt with the event logo - Banner for the event stage 2) Conduct traffic safety awareness event during the pedestrian mall implementation 3) Eco-drive and water resource conservation awareness leaflet dissemination to visitors	- TOYOTA requesting next pedestrian mall to BCDA, also asking necessary budget for that - TOYOTA started to support traffic pedestrian signal improvement in corporation to JAPAN grant assistant for grass-roots
4	SHORO (Local food and restraint company)	1) Provide beverage for video and audio contest prize award 2) Provide beverage for the event staff 3) Provide billboards at 3 locations in Bishkek City	
5	Sky Mobile (Beeline)	1) Gift for the event visitors 2) Provide Wi-fi rooter	
6	NTS (TV channel company)	1) Televising right for video and audio contest prize award winner's work 2) Provide TV broadcast interviewed by NTS morning interview program (Interviewees: Actor of the event / JICA / JICA Study Team).	
7	Discovery Central Asia (News paper company)	Article of the event for three magazines	The article expresses the next pedestrian mall by Japanese support
8	Snajyra Radio	Televising right was given to audio clip contest winner's work.	

	Organization	Contents	Note
9	Namba.kg	Support on web site event advertisement	
10	Limon.kg	Support on on-line event advertisement	
11	GREEN youth magazine	Pedestrian mall advertisements on magazine	
12	Coca-cola	1) Parasol and tents 30 sets 2) 70 chairs 3) 30 tables 4) Gift for participants	
13	Tattuu (confectionary company)	Prize for audio clip contest (Screen, video, Sweets etc)	

Figure A 23-1.4-3 Poster and Brochure Design (A4 / A6 Size)

Figure A 23-1.4-4 A3 Size Poster Design for Public Space

Figure A 23-1.4-5 Billboard Design

23-1.4.4.7 Publicity for the Pedestrian Mall

	Means	Detail	Note
1	Internet -Facebook - Odnoklassniki -Namba.kg -Twitter - Diesel - Design.kg	Information of the pedestrian mall	- Information about the events was updated during the course of the event preparation. - Around 100 of 'Likes' on Facebook
2	Poster	1) A3size 2,000 pcs for Trolley bus (Russian / Kyrgyz) 2) A3size 500 pcs for public space installation	Provided by OSCE
3	TV Spot	Animation TV spot broadcast for the event publicity	
4	Radio Spot	Radio spot for the event announcement	
5	News Paper	Article of the event on Central Asia and other magazine	
6	TV Broadcast	Interviewed by NTS morning interview program (Interviewees : Actor of the event / JICA / JICA Study Team) 31st August / 14th September 2012	Provided by NTS
7	Press conference	12th September 2012 (JICA / Bishkek City / JICA Study Team / CREAT)	Coordinated by BCDA
8	Mass Media	Information provision to mass media on demand by CREAT and BCDA.	Coordinated by BCDA and CREAT
9	Event Map	Event information map and event time schedule for visitors were disseminated.	For the event visitors
10	Information card	1,000 pcs A6 size color copy	For individuals
11	Banner	20 pcs (both side printing) 0.6 x 4 m Installed on the overhead wire of trolley bus on Kievskaya street	Provided by TOYOTA
12	Billboard	Duration of installation:4th-17th September 2012 3 locations below. 1) Erkindik st-Kievskaya st 2) Bokombaeva st-Usenbaeva st 3) Sevetskaya st-Jantosheva st	Provided by SHORO
13	Banner for the event stages	3pcs 180 sq.m. (skirts, backdrops, arches)	Provided by OSCE / TOYOTA

23-1.4.4.8 Dissemination Item

Traffic safety awareness tools and attraction tools for dissemination to visitors ware produced as shown in the table below.

Table A 23-1.4-6 List of Dissemination Items

	Item	Number	Specification	Provider
1	Reflective Bracelet	15,000 pcs	Reflective material with the Pedestrian Mall Logo.	OSCE Distributed to schools in Bishkek after the pedestrian mall.
2	Reflective Badge	1,500 pcs	Reflective material with Logo	Grundfos (300 pcs) / JICA
3	Wind Mill	300 pcs	With Logo print	JICA

	Item	Number	Specification	Provider
4	Event Map	1,000 pcs	A3 Color	OSCE
5	Traffic Safety Hand Book	2,500 pcs	A4 Color both side	OSCE
6	Leaflet	4,000 pcs	A6 Color	OSCE
7	Poster	400 pcs	A4 Color	OSCE
8	T-Shirt	150 pcs	Color printing For event staff	TOYOTA
9	Handy LED Light	200 pcs	Gift to junior police groups	JICA STUDY TEAM

23-1.4.4.9 Public facility and security on the street

Necessary facilities like trash box, portable toilet, parking space, emergency booth, police booth, fire-engine were prepared during the event. For the security reason, supervisor of each event was chosen and insurance for the event was covered. Is was hardly could see littering and garbage on the street during and after the event that was contributed smooth and clean road recovering work.

Photo Event Facility Setting at Midnight

The day of event, there was no serious accident and crime happened. One participant slightly injured and one bicycle was missed but it found a day after the event. Event facility removing and road recovery work was completed smoothly.

23-1.4.4.10 Evaluation Surveys

(1) Interview survey for the event evaluation

To evaluate the impact of the pedestrian mall, interview surveys were conducted three times. The 1st survey and the 3rd survey were targeted on inhabitant, and shop and office along Kievskaya Street. The 2nd survey was targeted on visitors of the Pedestrian Mall. The detail of the schedule is shown in the following table.

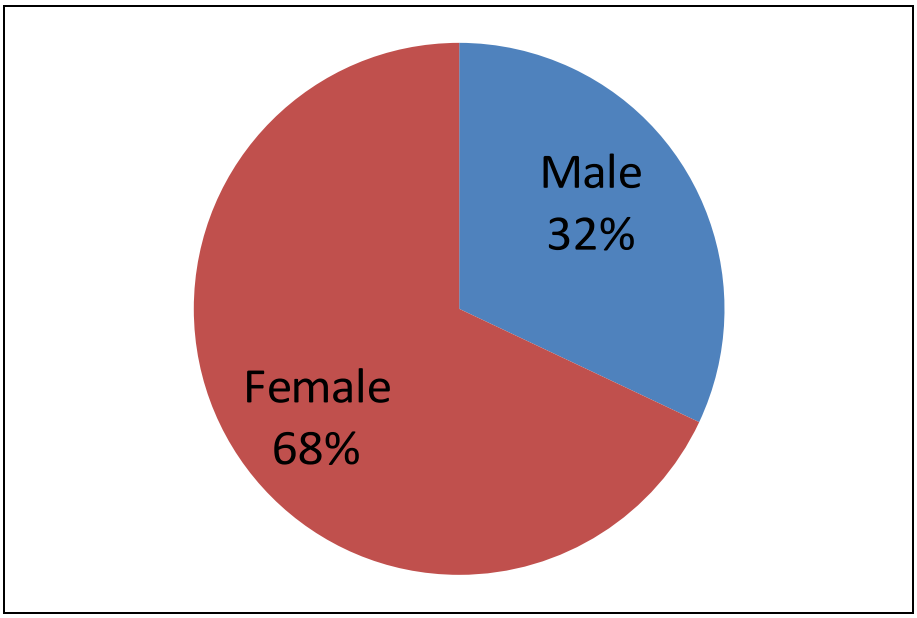
Table A 23-1.4-7 Schedule of the interview surveys

Item	Date	Target	Sample Number	Note
The 1st survey	10-12 September 2012	Stake holders along Kievskaya street (Inhabitants / Shops)	200	To grasp the comment from shops and inhabitants along Kievskaya street
The 2nd survey	16 September 2012	Visitors of the pedestrian mall	Total 500 400 for the event impact, 100 for the environmental opinion	To grasp visitors' comment on the event and environmental.
The 3rd survey	18-20 September 2012	Stake holders along Kievskaya street (Inhabitants / Shops)	200	To grasp the comment from shops and inhabitants along Kievskaya street

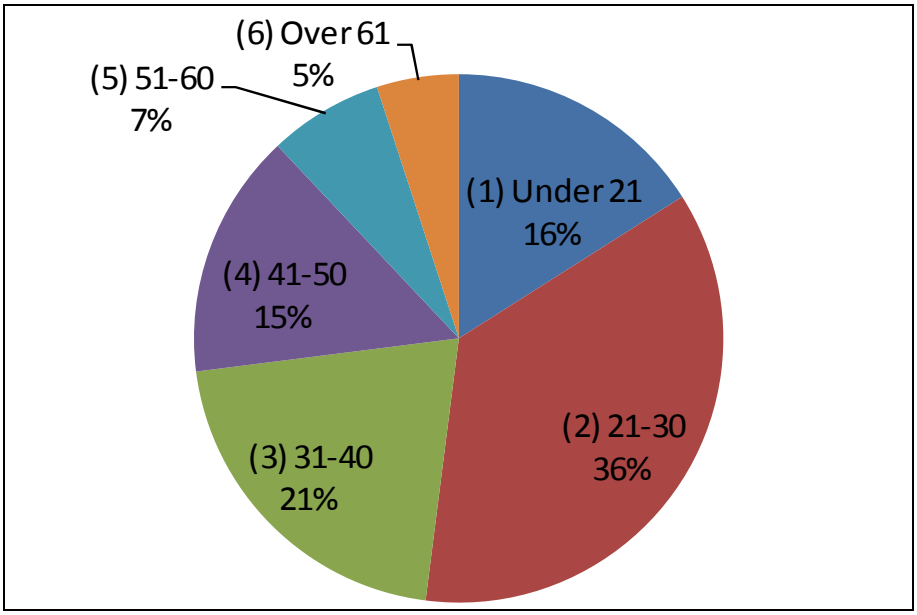
(2) Result of the Interview survey

(a) First Survey For Inhabitants (Before the implementation)

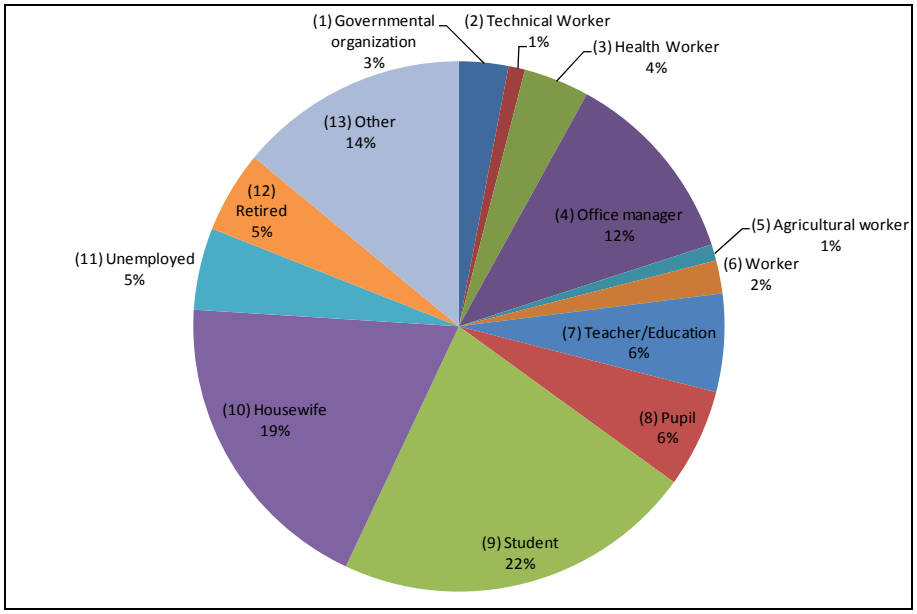
(i) Sex



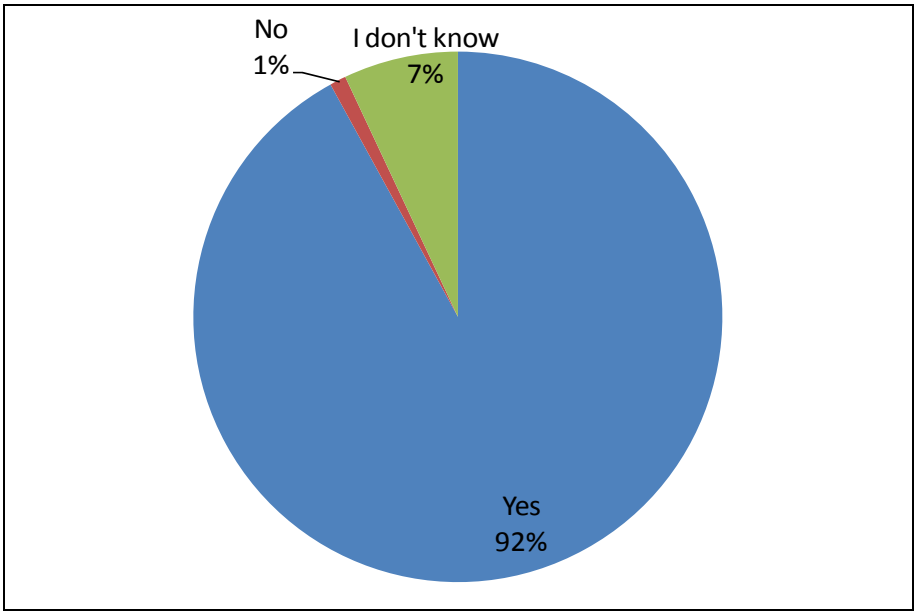
(ii) Age



(iii) Occupation



(iv) Would you agree with the pedestrian mall social experiment implementation?



(v) Would you like to visit the event on this occasion?

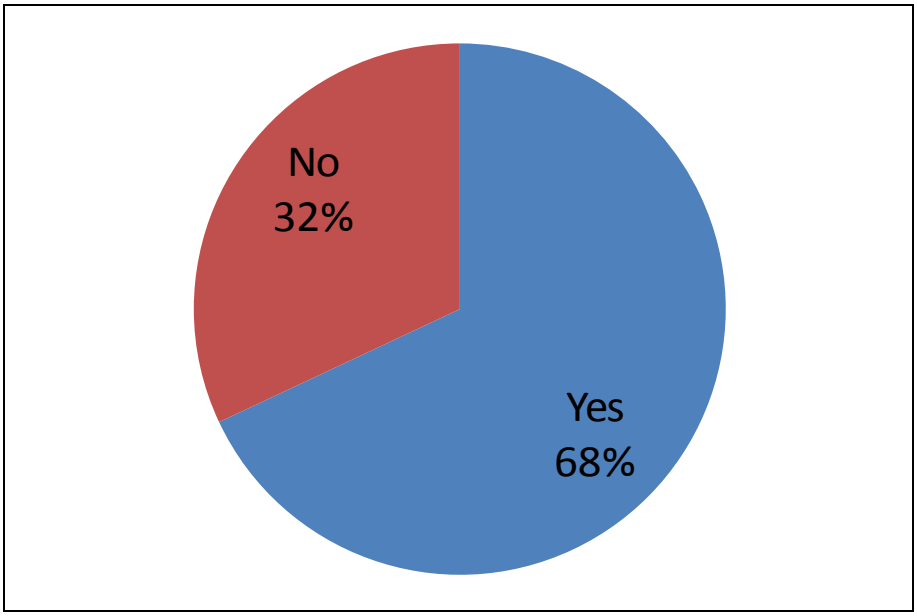


Table Contents of questionnaires (Before / During / After the Pedestrian Mall)

Preliminary survey on Pedestrian Mall in Kievskaya Street
Questionnaire
(Before the event)
For inhabitants along Kievskaya Street

1. Sex: (1) Male (2) Female:

2. Age: (1) Under 21 (2) 21-30 (3) 31-40 (4) 41-50 (5) 51-60 (6) Over 60

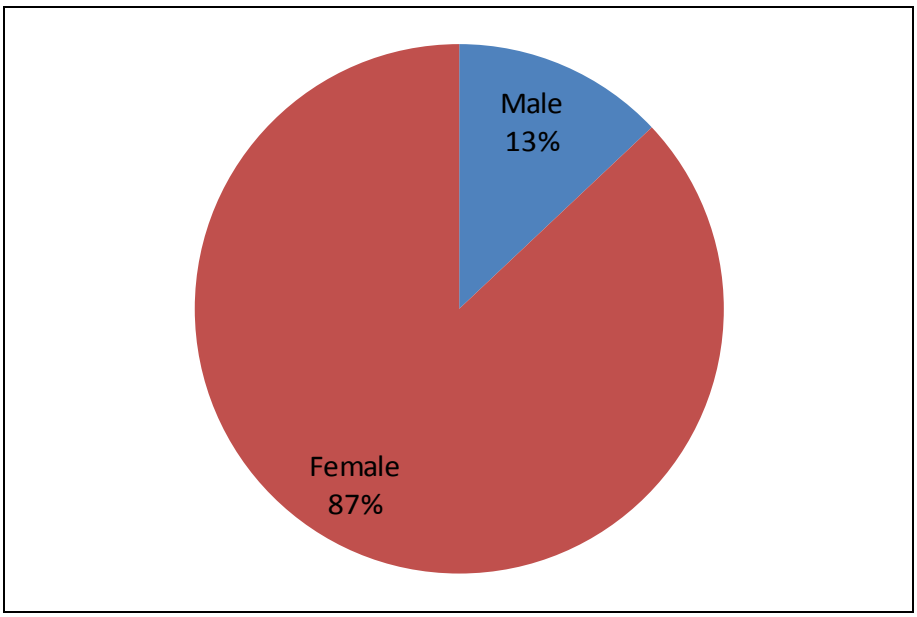
3. Occupation: (1) Governmental organization (2) Technical Worker (3) Health Worker
(4) Office manager (5) Agricultural worker (6) Worker (7) Teacher/Education (8) Pupil (9) Student
(10) Housewife (11) Unemployed (12) Retired (13) Other ( )

4. Would you agree with the pedestrian mall social experiment implementation? Reply with reason.
(1) Yes / Reason
(2) No / Reason
(3) I do not know / Reason

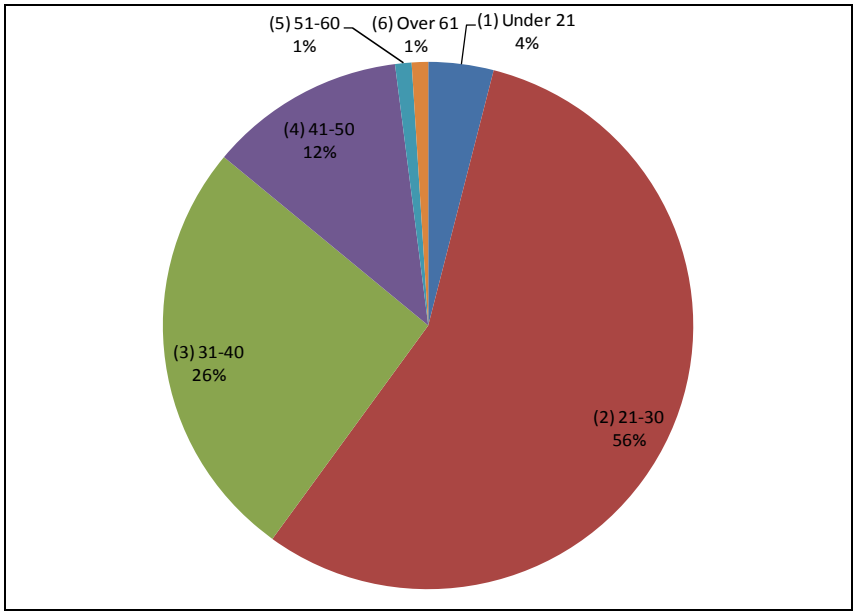
5. Would you like to visit the event on this occasion? Please write down your answer and the reason.
(1) Yes / Reason
(2) No / Reason

(b) First Survey For shop and office (Before the implementation)

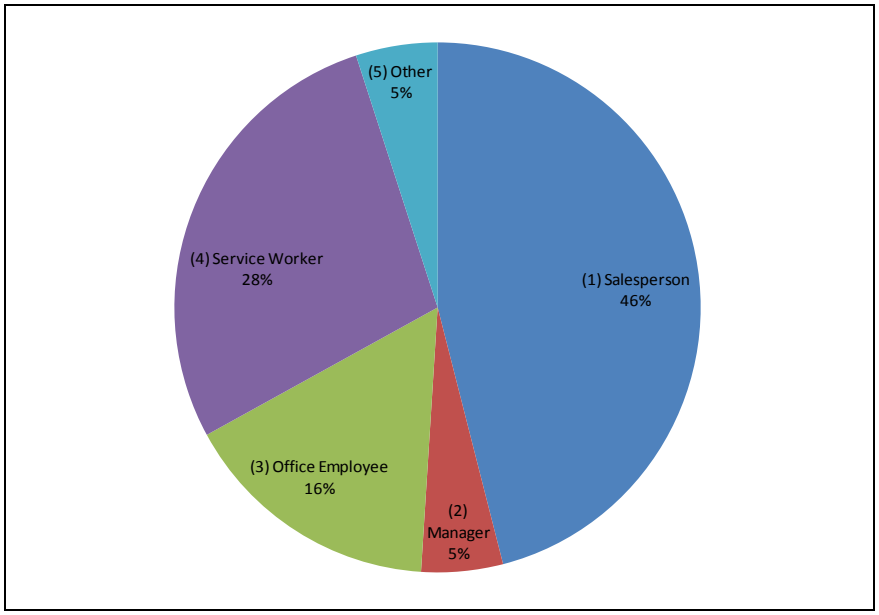
(i) Sex



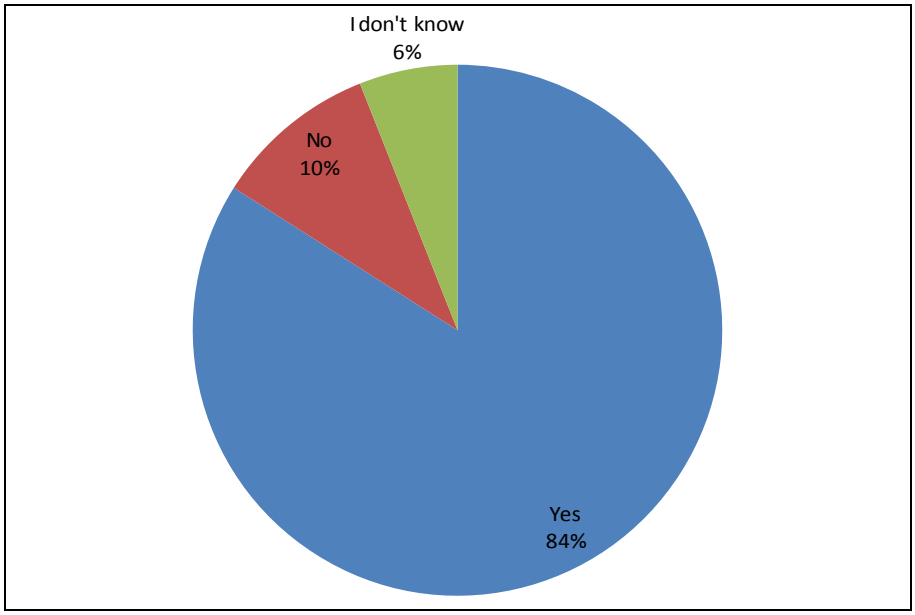
(ii) Age



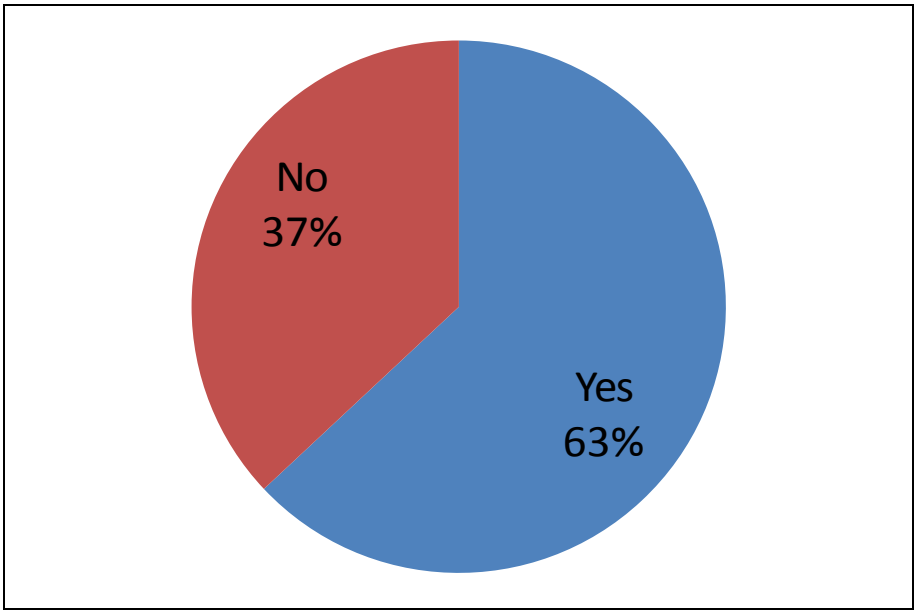
(iii) Occupation



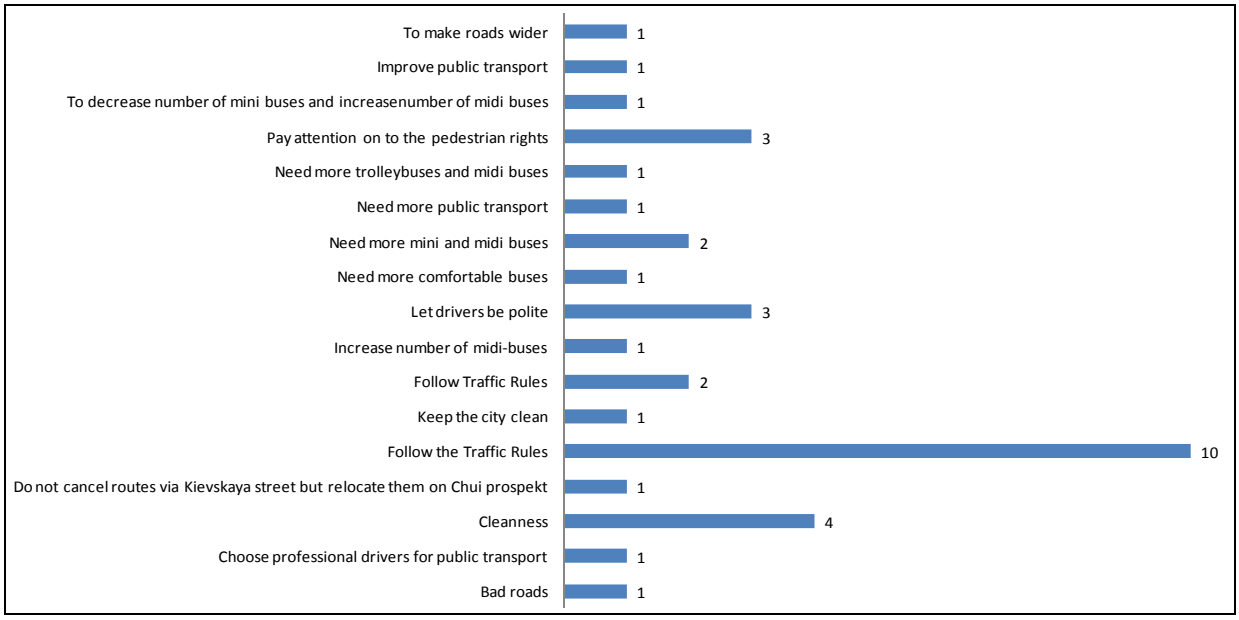
(iv) Would you agree with the pedestrian mall social experiment implementation?



(v) Would you like to visit the event on this occasion?

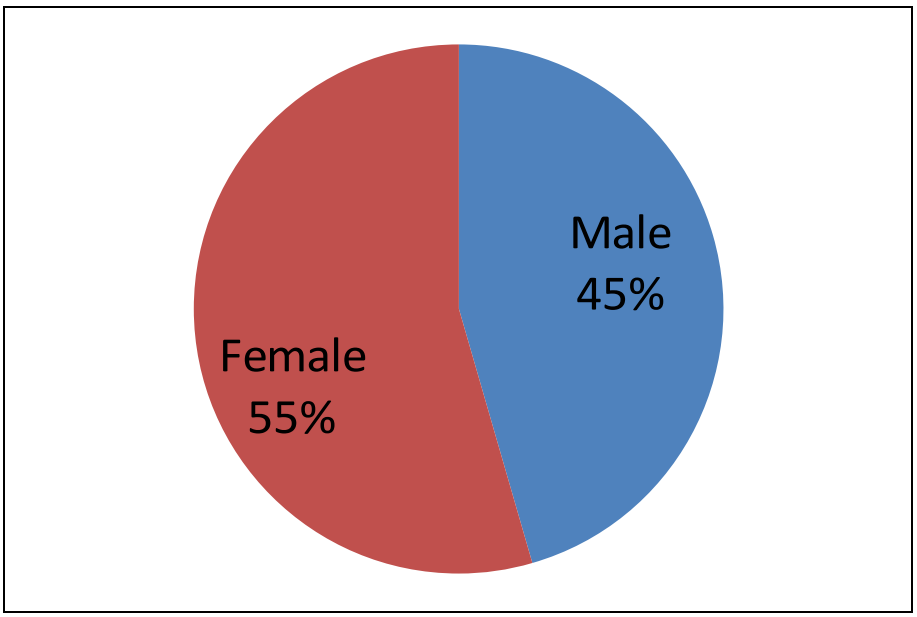


(vi) If you have any requirement or comment on transportation in Bishkek, please write down.

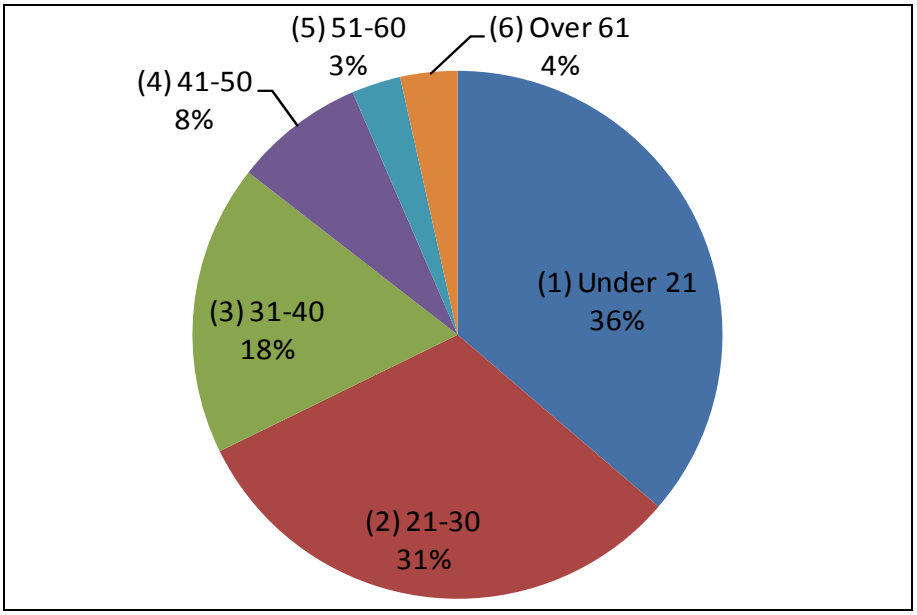


(c) Second Survey For Visitors (During the implementation)

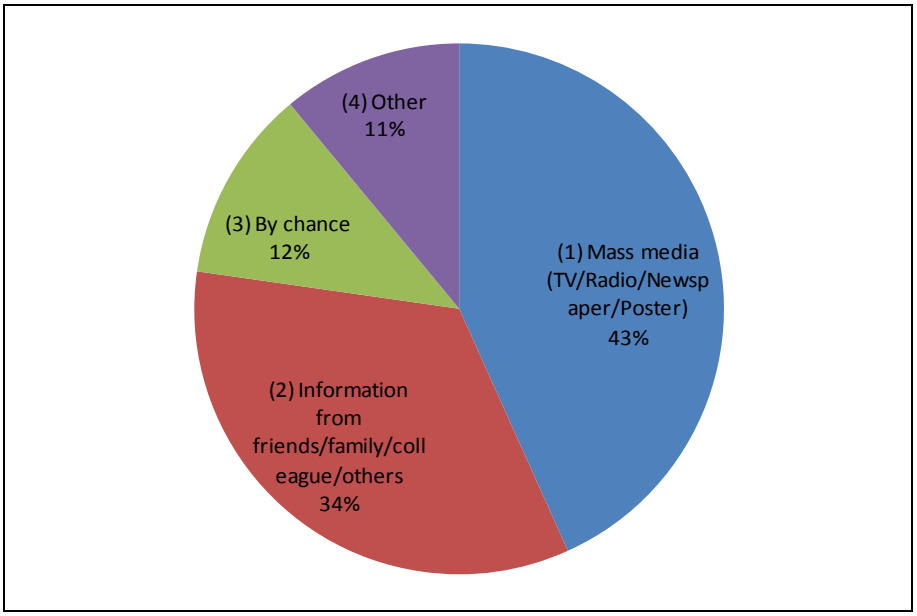
(i) Sex



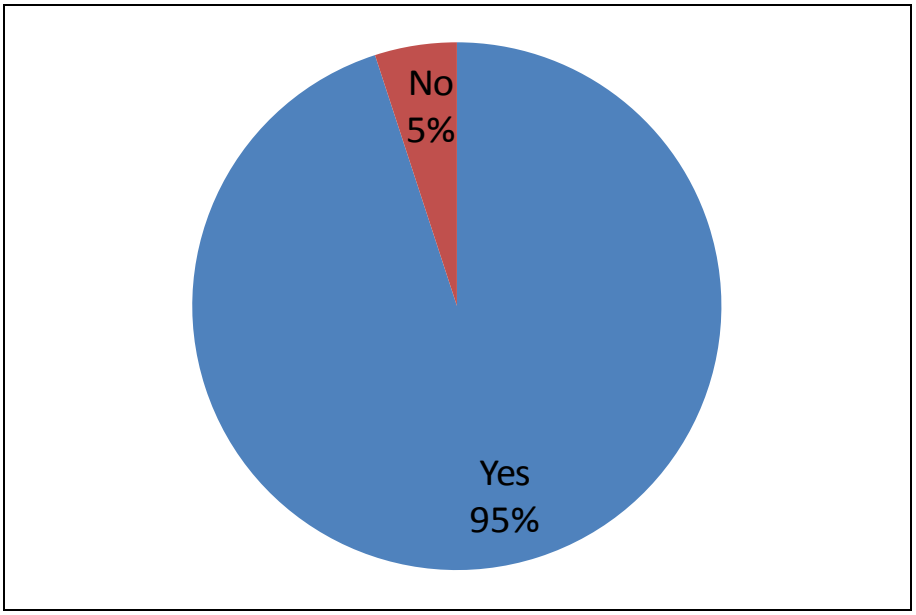
(ii) Age



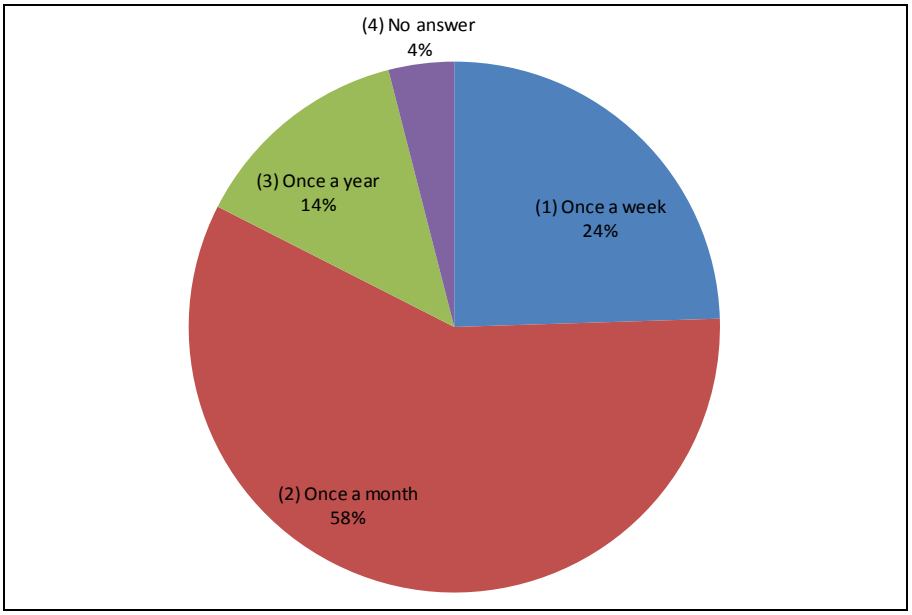
(iii) How do you know the Pedestrian Mall?



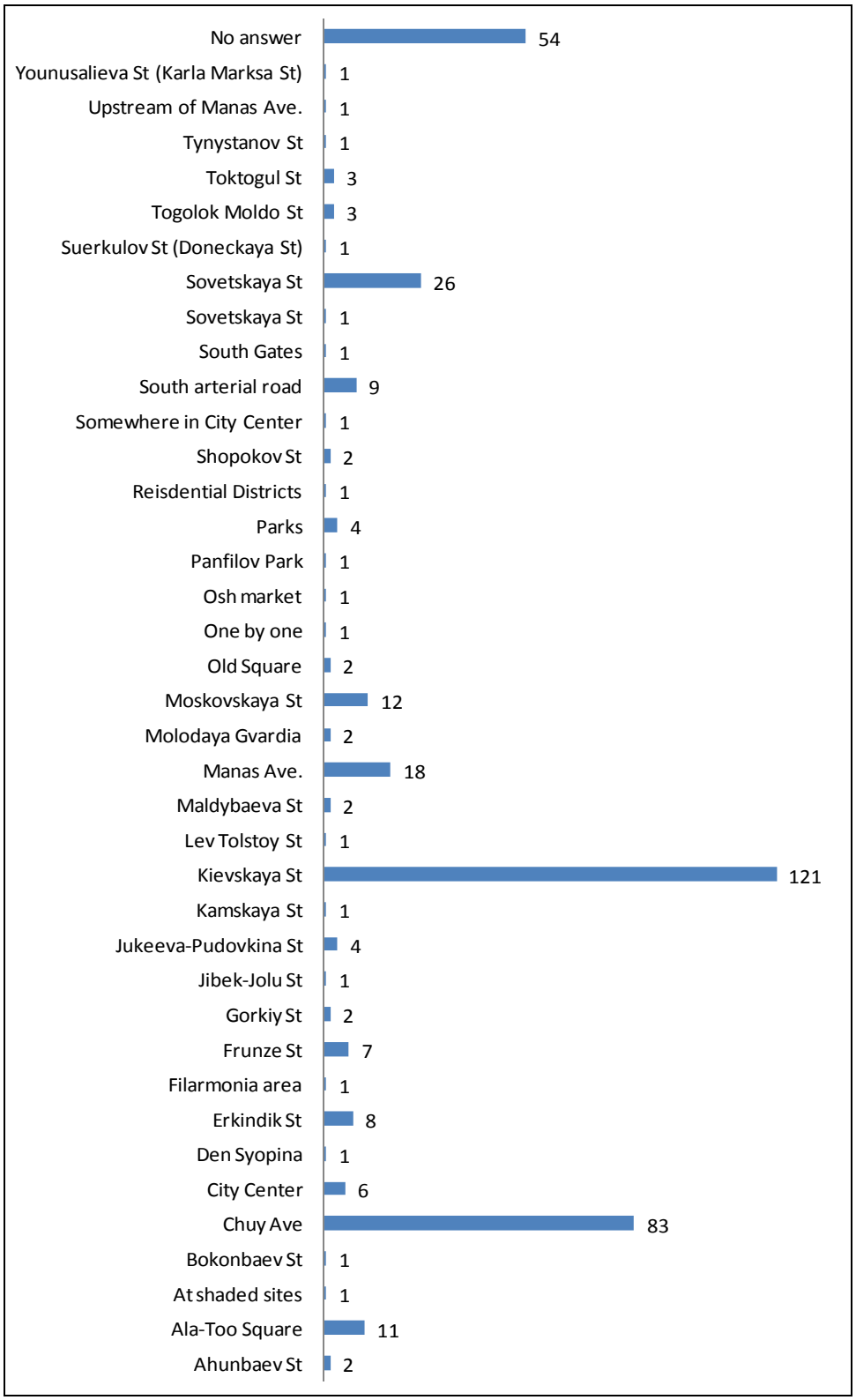
(iv) Do you like to have pedestrian prioritized (car free) street on holiday?



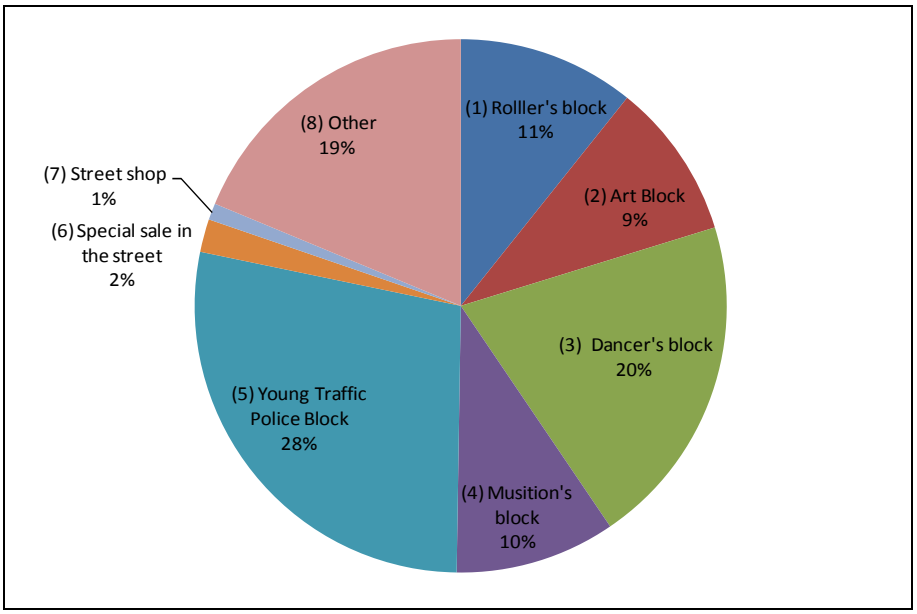
(v) If yes, how often would you like to have it?



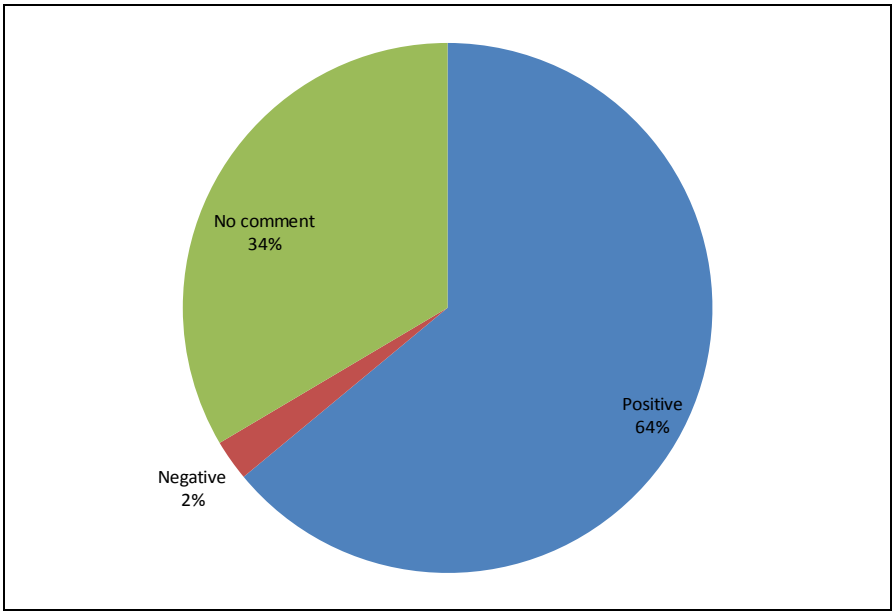
(vi) Which street would you suggest for pedestrian prioritized (car free) street?



(vii) Which event was impressed you most for you during pedestrian event?

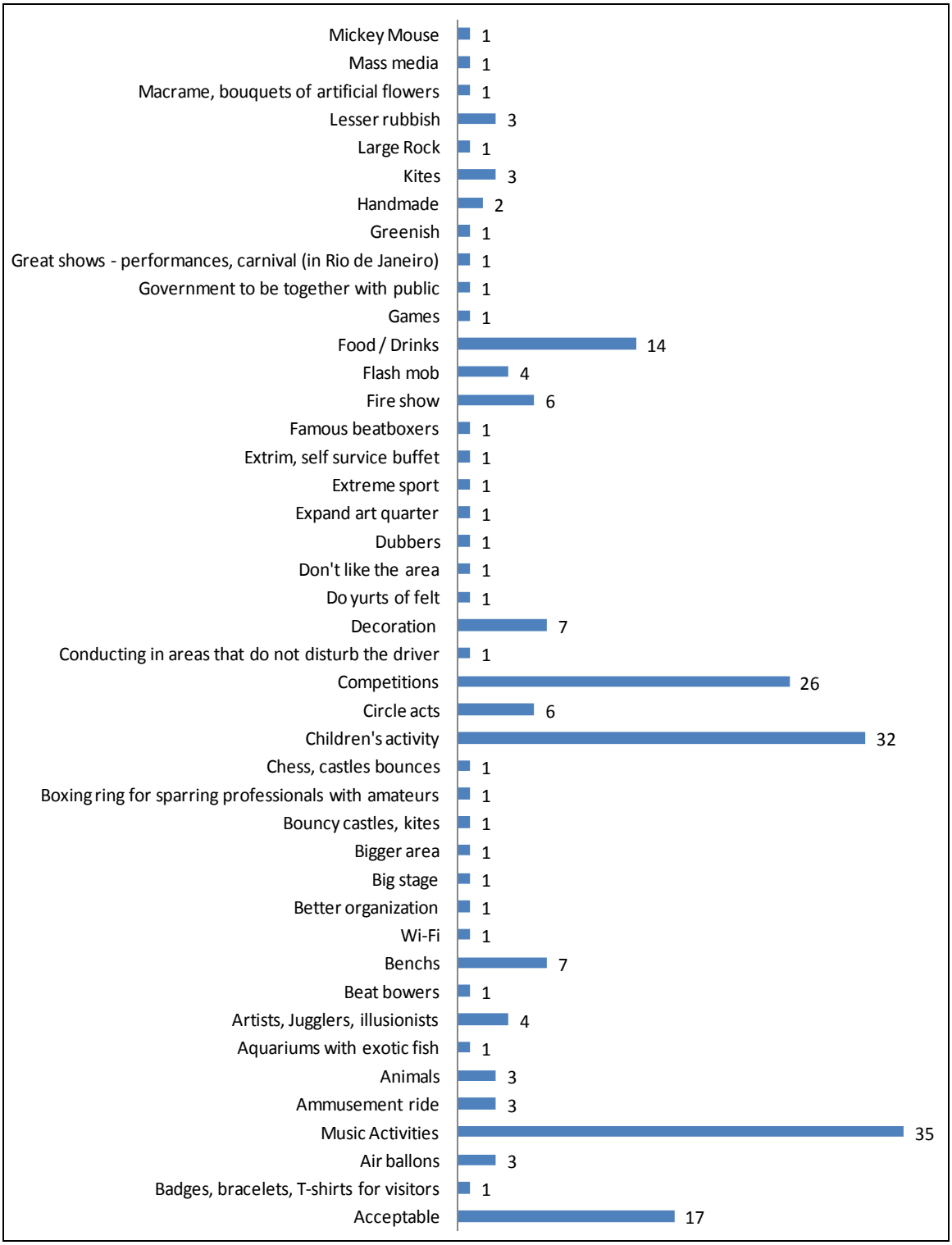


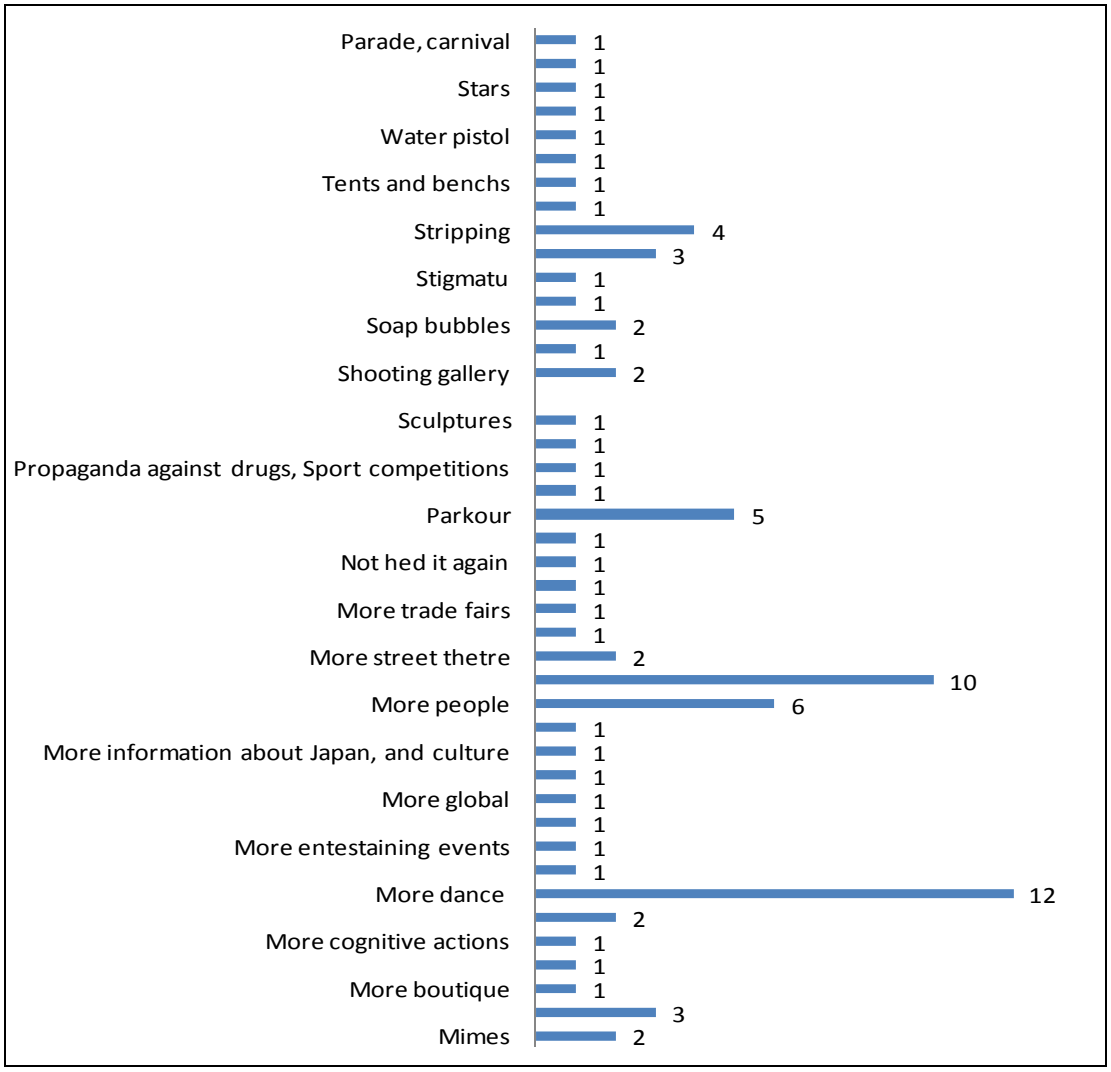
(viii) Do you have any comment on the event?



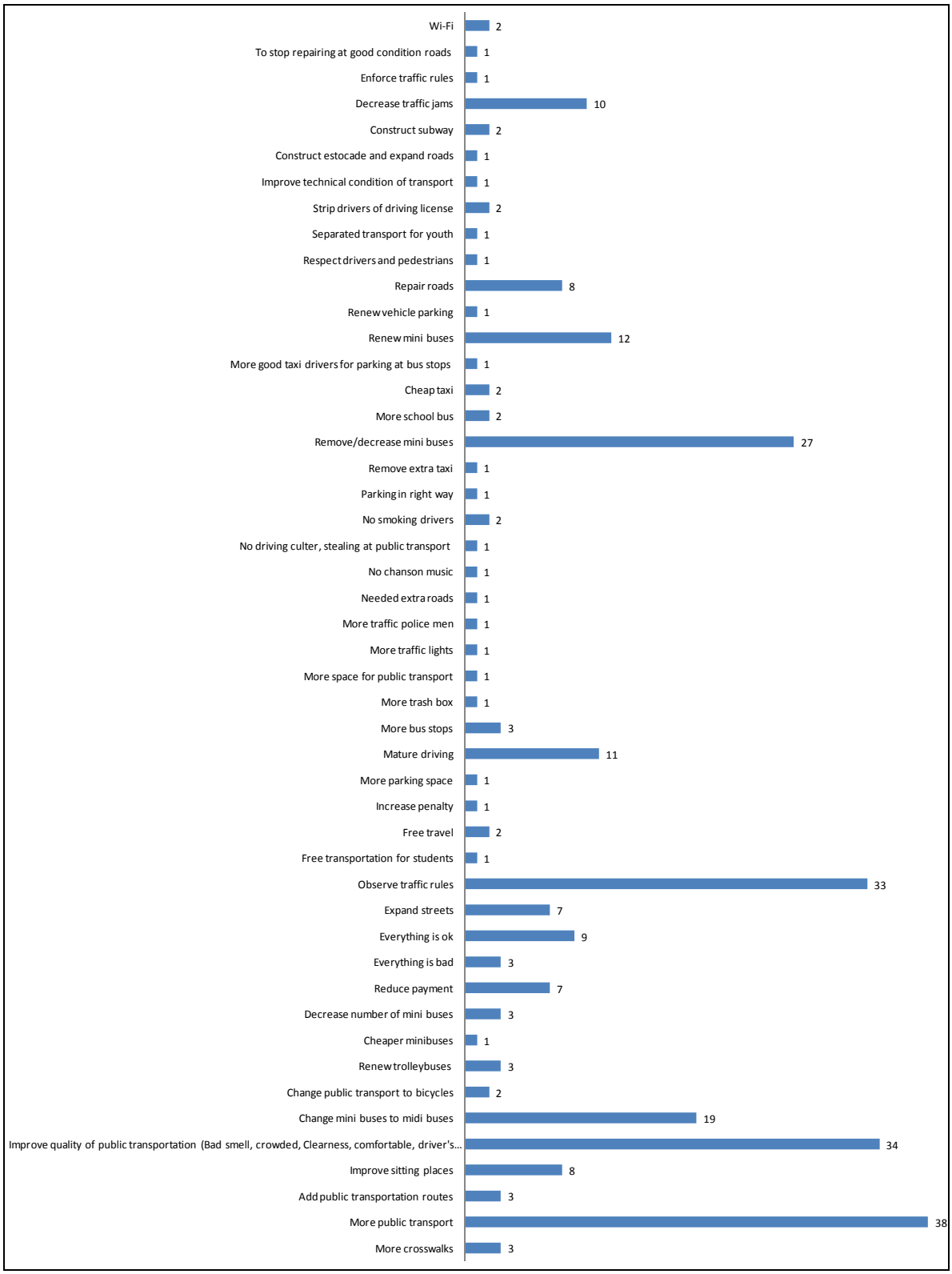
Most of the comments are positive on the Pedestrian Mall. Contents of negative comments are “Lot of dust”, “Noisy”, “Place need to be changed” and so on.

(ix) What else would you like to see at pedestrian mall?




Parade, carnival
Stars
Water pistol
Tents and benchs
Stripping
Stigmatu
Soap bubbles
Shooting gallery
Sculptures
Propaganda against drugs, Sport competitions
Parkour
Not hed it again
More trade fairs
More street thetre
More people
More information about Japan, and culture
More global
More entestaining events
More dance
More cognitive actions
More boutique
Mimes

(x) If you have any requirement or comment, please write down.



Interview Survey on Pedestrian Mall in Kievskaya Street
Questionnaire
(During the event)
To Visitors

1. Sex: (1) Male (2) Female:

2. Age: (1) Under 21 (2) 31-40 (3) 41-50 (4) 51-60 (5) Over 61

3. How do you know the Pedestrian Paradise (Car free day on the street)?
   (1) Mass media (TV/Radio/Newspaper/Poster)
   (2) Information from friends/family/colleague/others
   (3) By chance
   (4) Other ( )

4. Do you like to have pedestrian prioritized (car free) street on holiday?

5. If YES, how often would you like to have it?
   (1) Once a week
   (2) Once a month
   (3) Once a year

6. Which street would you suggest to make car-free for pedestrian?

7. Which event is impressive most for you during the pedestrian mall?
   (1) Rolller's block (Specify more)
   (2) Art Block (Specify more)
   (3) Dancer's block (Specify more)
   (4) Musition's block (Specify more)
   (5) Young Traffic Police Block (Specify more)
   (6) Special sale in the street
   (7) Street shop (Specify more)
   (8) Other (Specify more)

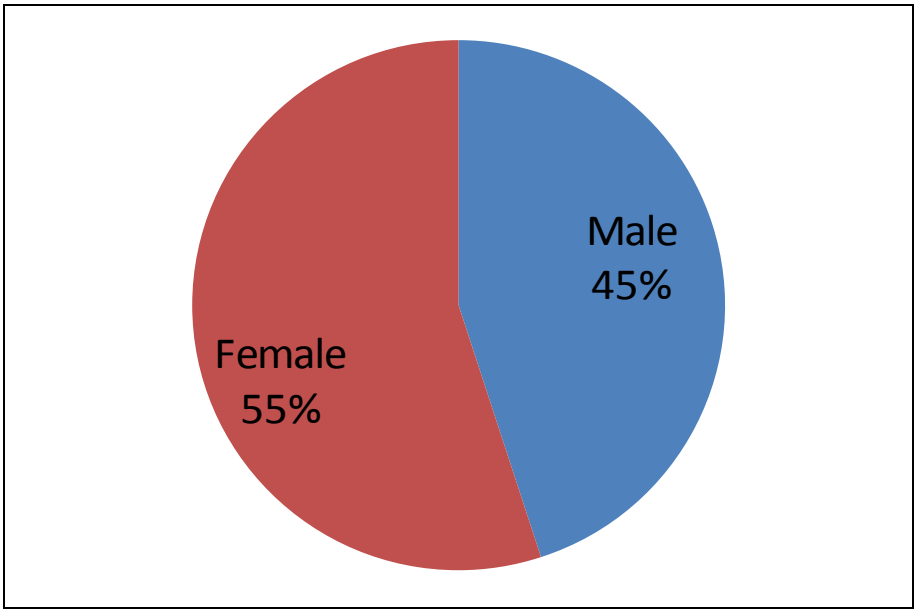
8. Do you have any comment about the event?

9. What else would you like to see at the Pedestrian Paradise?

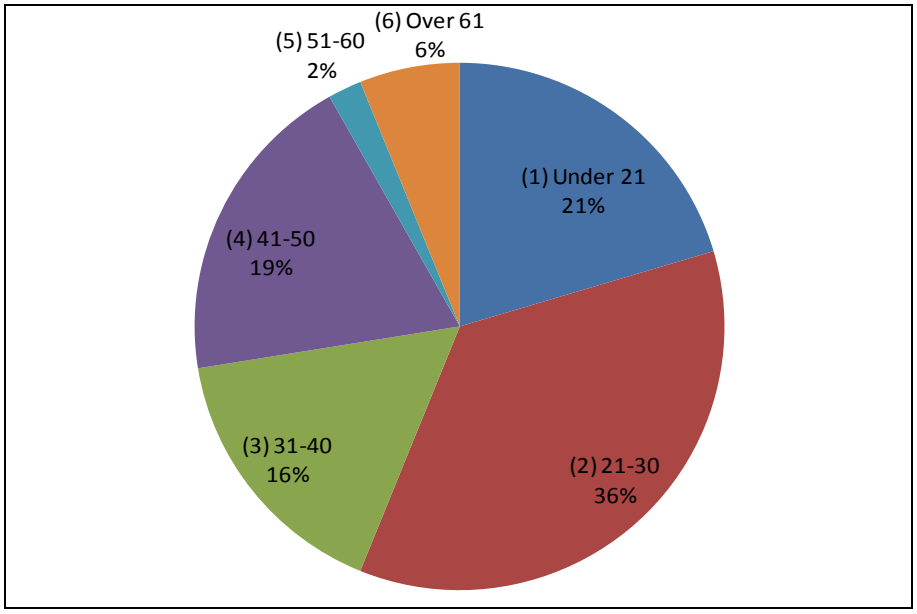
10. If you have any requrement and comment on Bishkek, plese write down.

(d) Third Survey For Inhabitants (After the implementation)

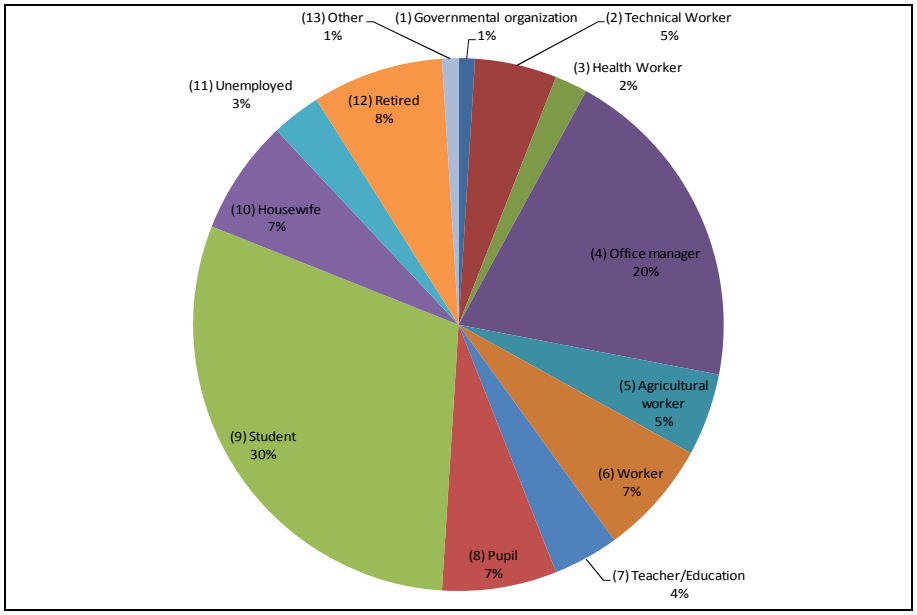
(i) Sex



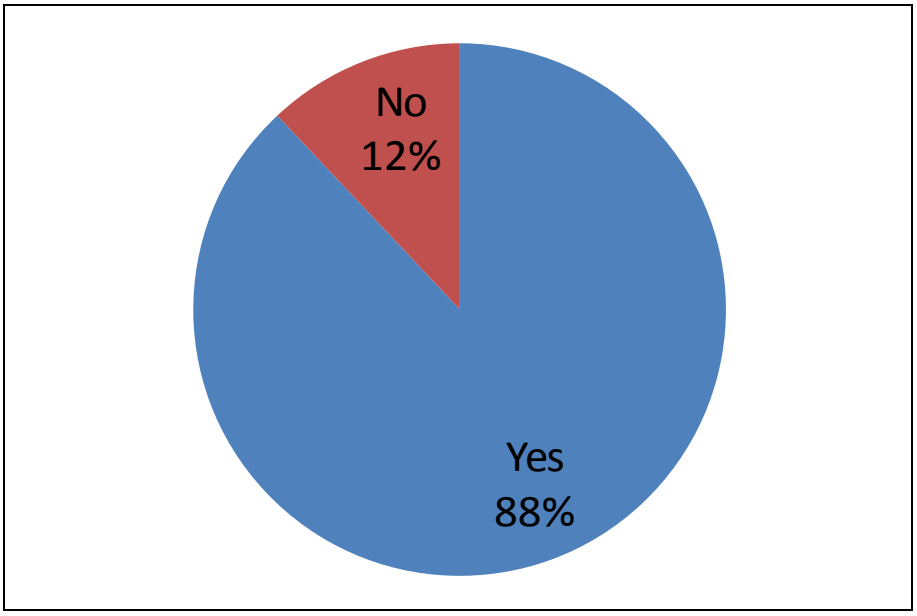
(ii) Age



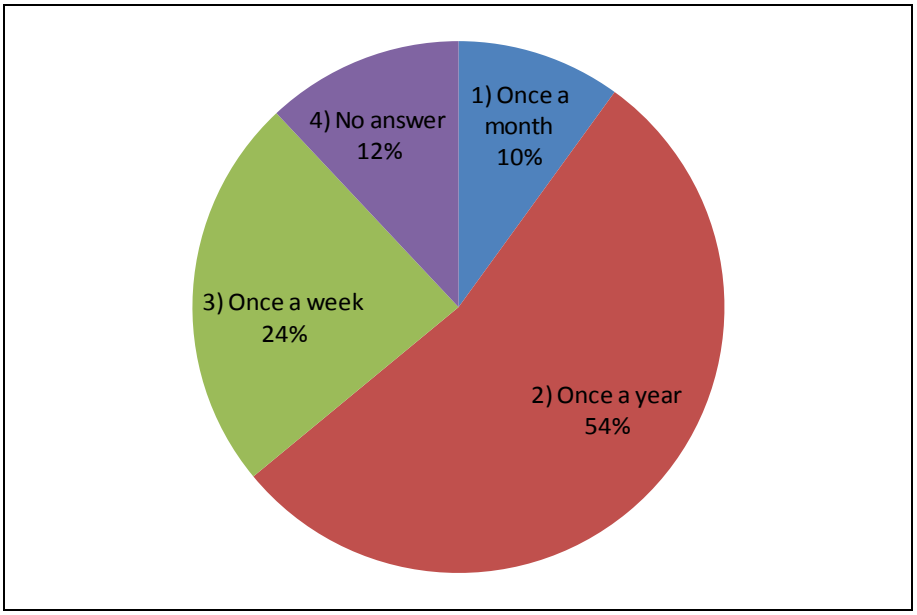
(iii) Occupation



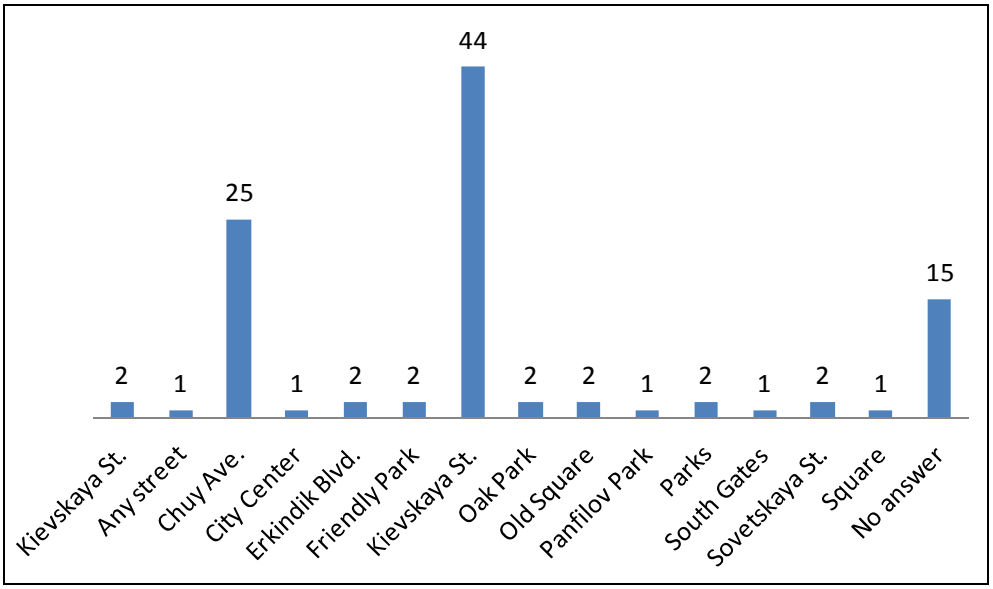
(iv) Would you like to see car free streets in the City on weekends?



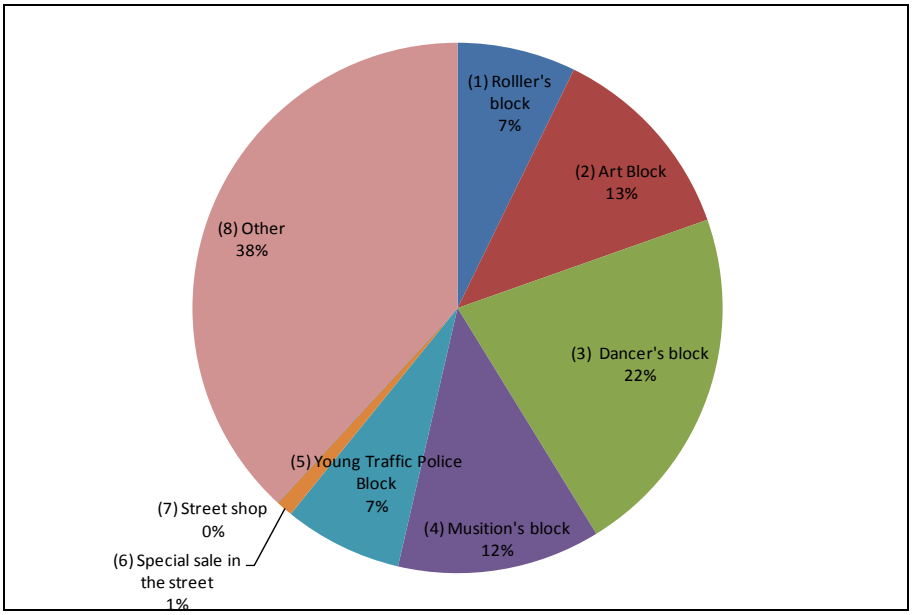
(v) How often would you see that?



(vi) What street would you recommend to make free for pedestrians?

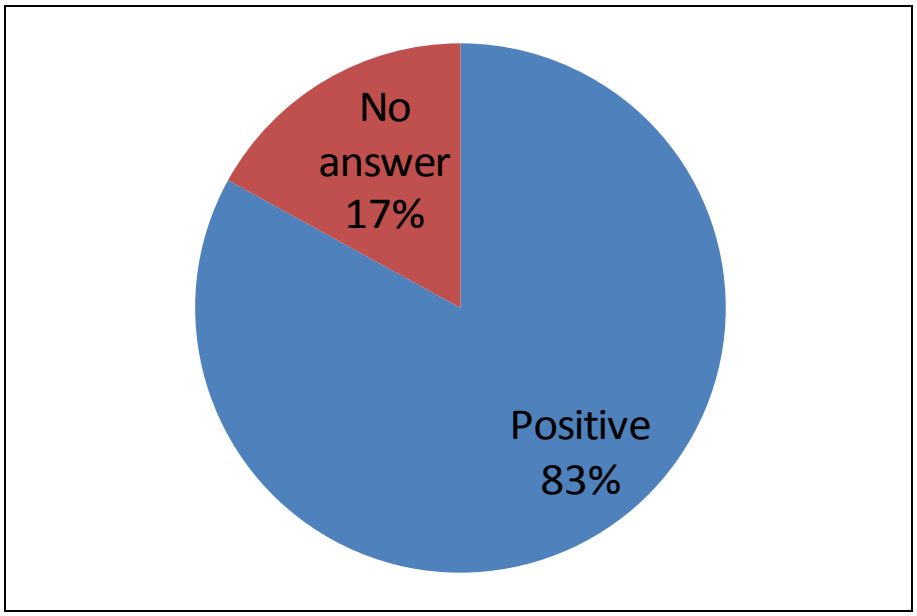


(vii) What part of the holiday program you like the most?

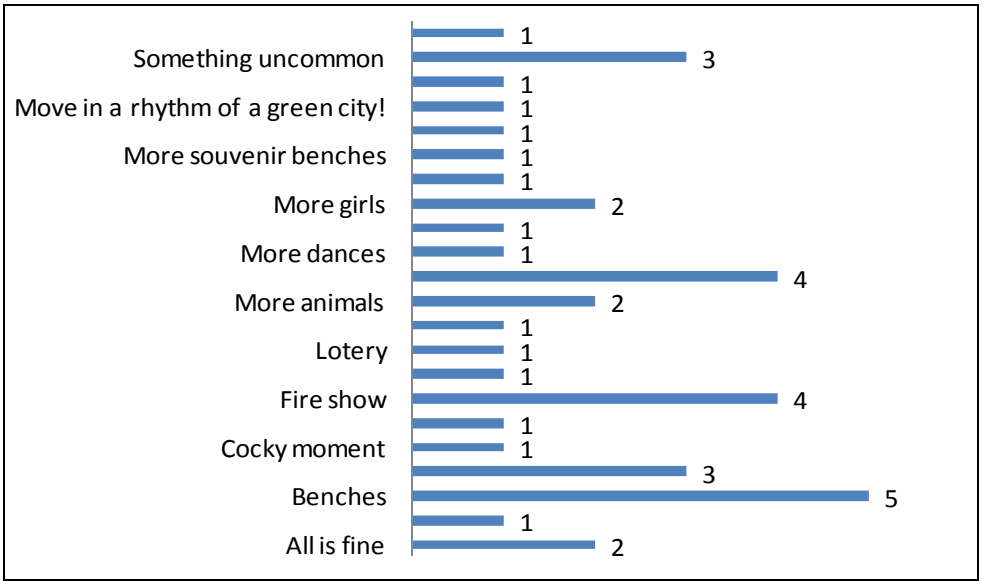


(viii) What part of the holiday program you like the most?

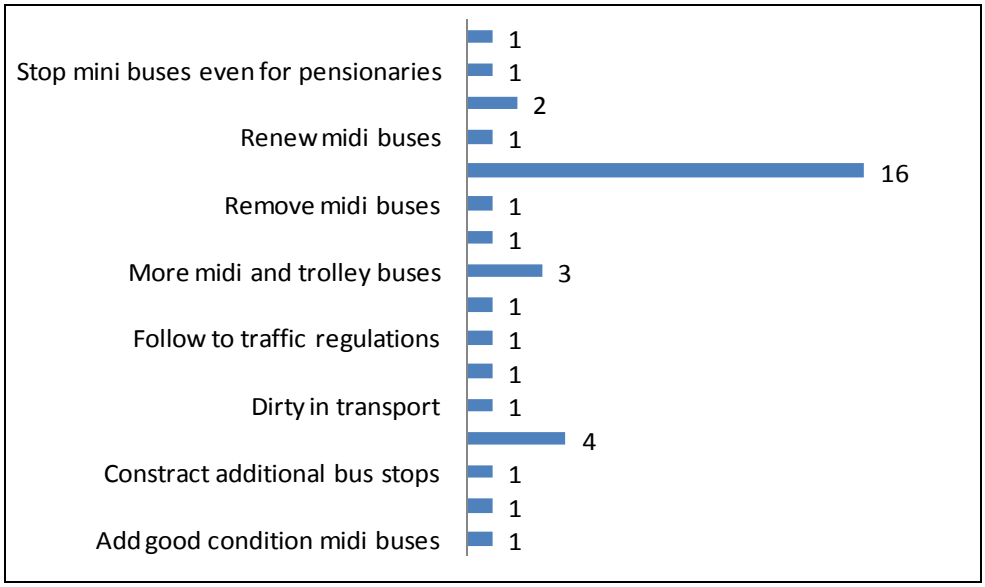
In the answer (8), "All" is 23 persons, "Did not see" is 8 persons, "Nothing" is 5 persons.



(ix) What else would you like to see on "Pedestrian Paradise"?



(x) Suggestions and comments about the urban public transport



Interview Survey on Pedestrian Mall in Kievskaya Street
Questionnaire
(After the event)
Inhabitants

1. Sex: (1)Male (2)Female: Age:

2. Age: (1) Under 21 (2) 31-40 (3) 41-50 (4) 51-60 (5) Over 61

3. Occupation: (1) Governmental organization (2) Technical Worker (3) Health Worker
(4) Office manager (5) Agricultural worker (6) Worker (7) Teacher/Education (8) Pupil (9) Student
(10) Housewife (11) Unemployed (12) Retired (13) Other ( )

4. Do you like to have pedestrian prioritized (car free) street on holiday or weekends?
(1) Yes (2) No / Reason

5. If YES, how often would you like to have it?
   1) Once a month
   2) Once a year
   3) Once a week

6. Which street do you suggest for the Pedestrian Mall?

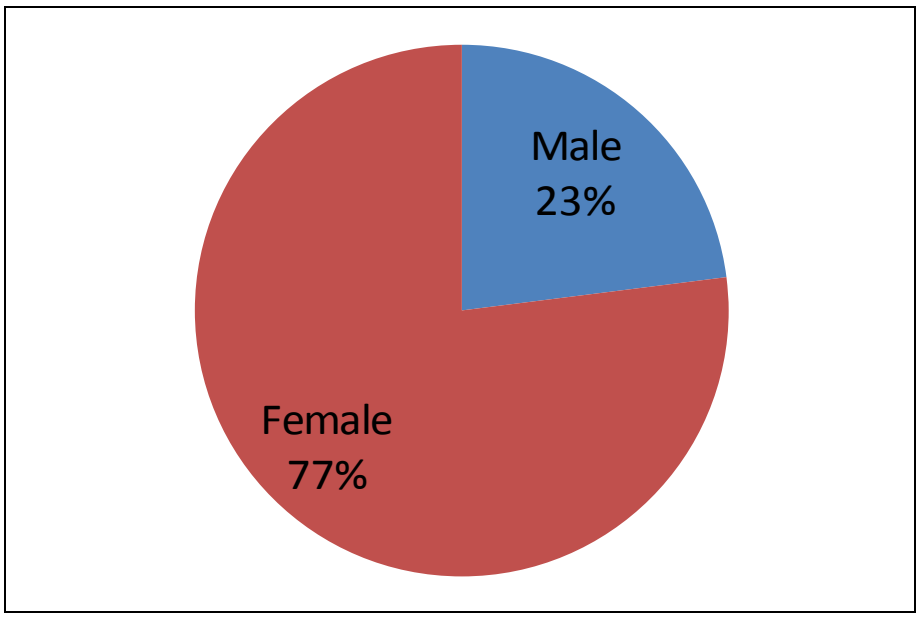
7. What event did you enjoy most during pedestrian paradise?
   a) Traffic Safety event
   b) Music/Dance
   c) Japanese event
   d) Shopping/Special sale in the street
   e) Other ( )

8. Do you have any requirement or question about the event?

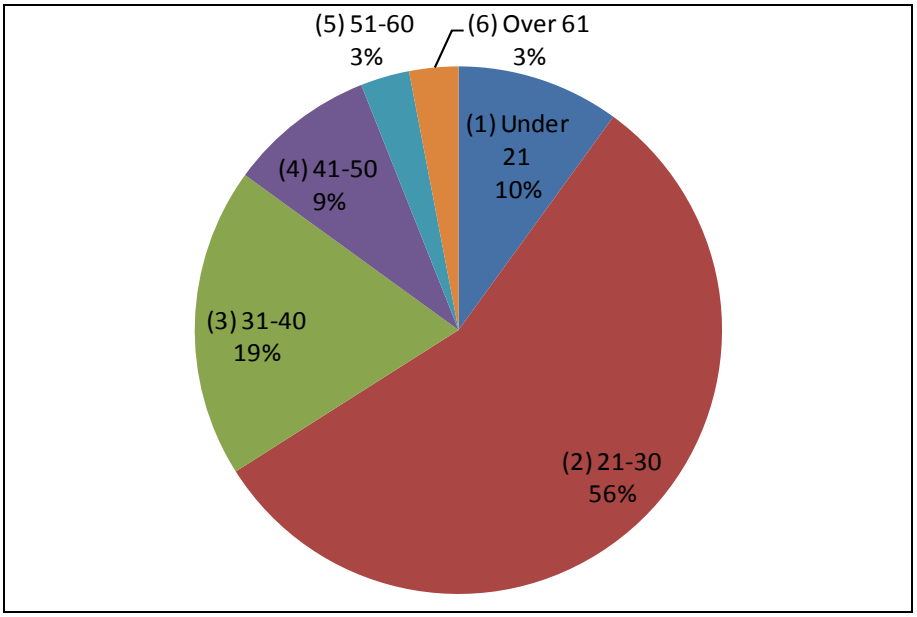
9. If you have any requirement or comment on transportation in Bishkek, please write down.

(e) Third Survey For Shop and Office (After the implementation)

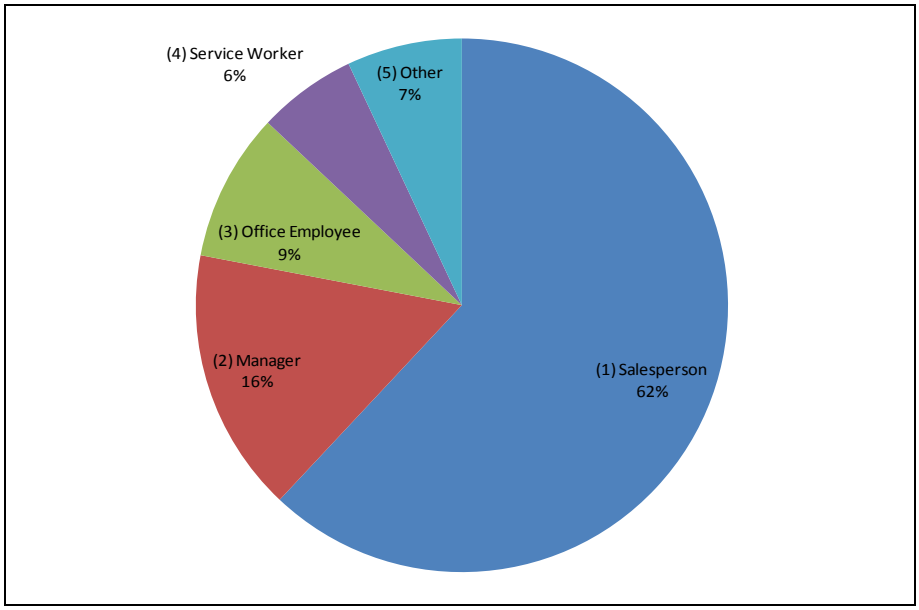
(i) Sex



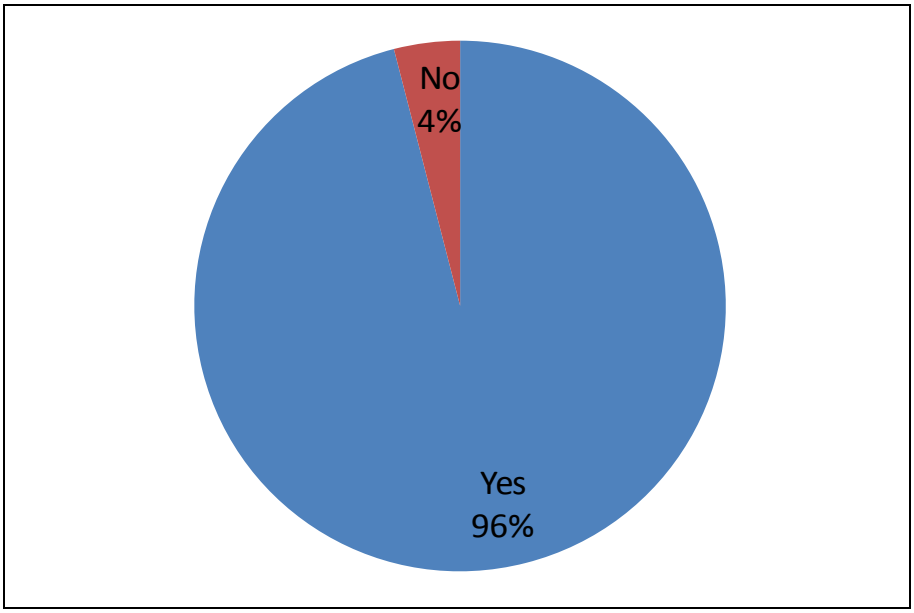
(ii) Age



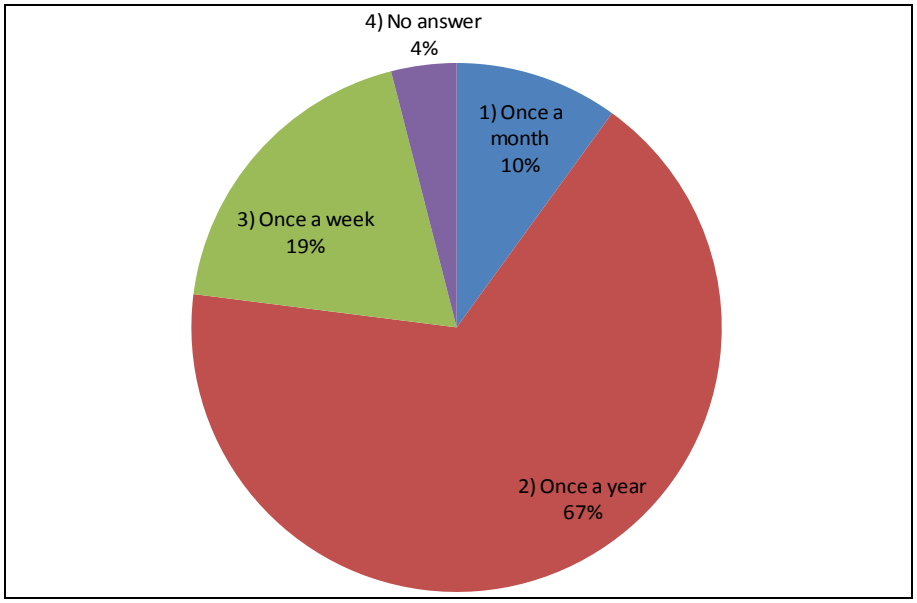
(iii) Occupation



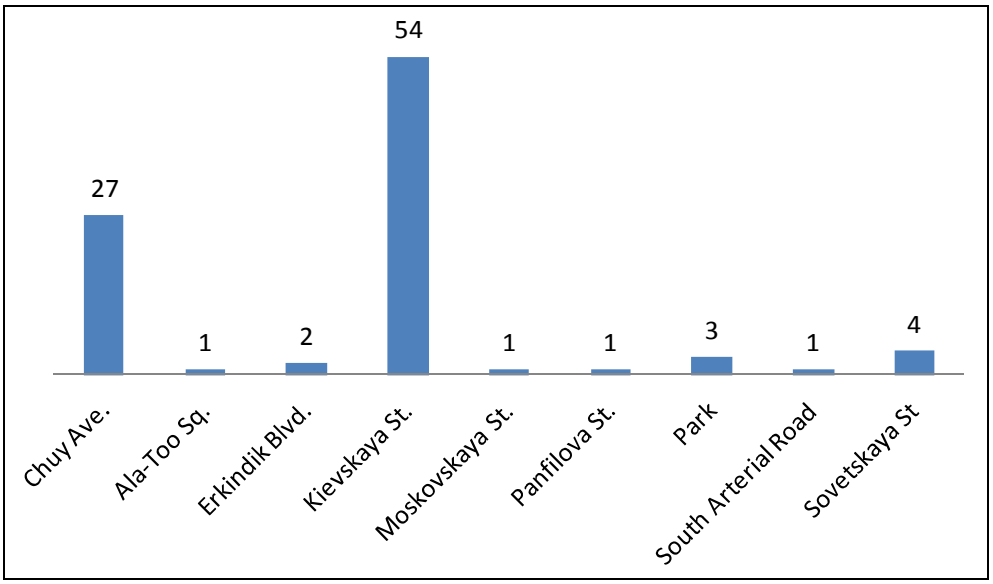
(iv) Do you like to have pedestrian prioritized (car free) street on holiday or weekend?



(v) If yes, how often would you like to have the event?

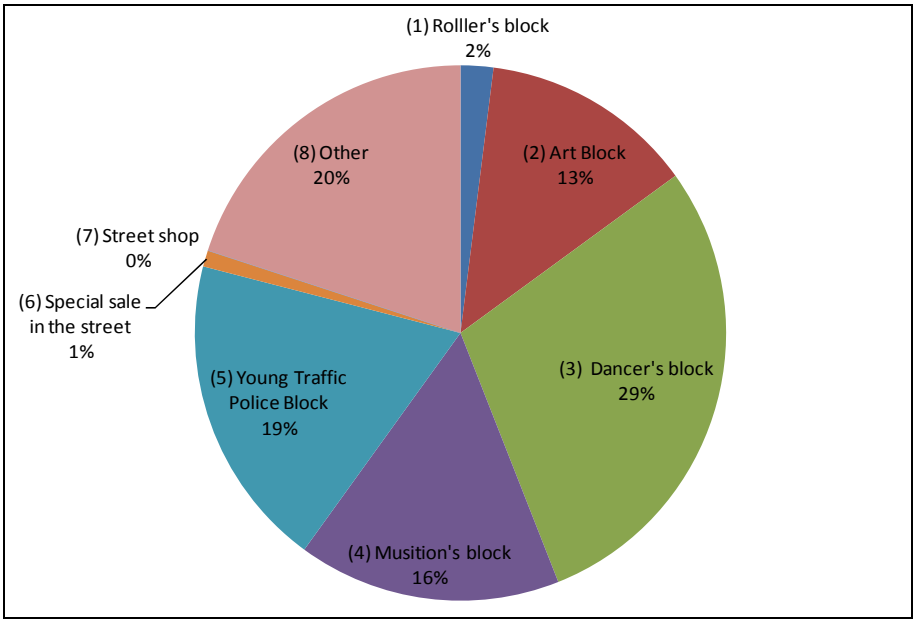


(vi) Which street do you suggest for pedestrian mall?

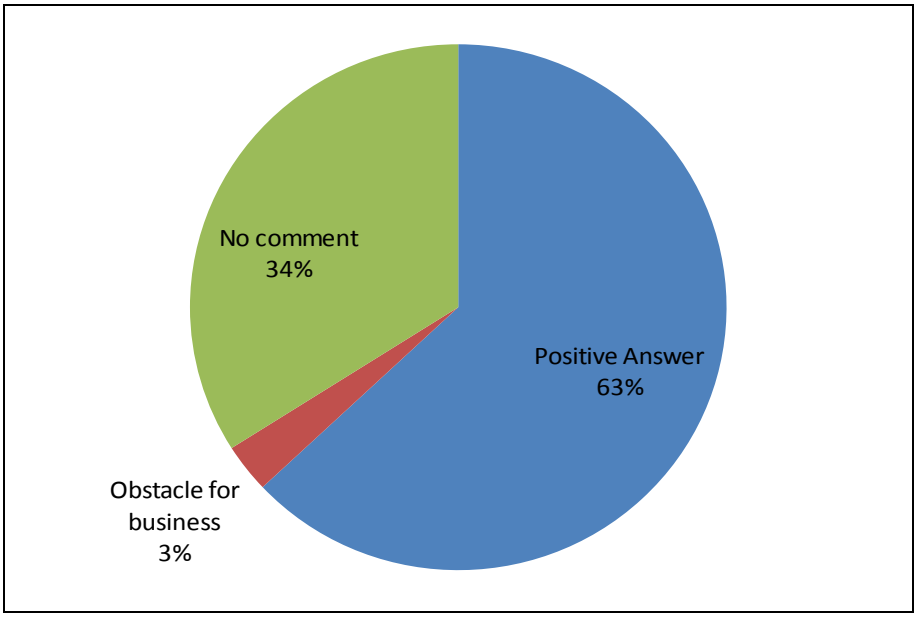


(vii) What event did you enjoy most during the Pedestrian Mall?

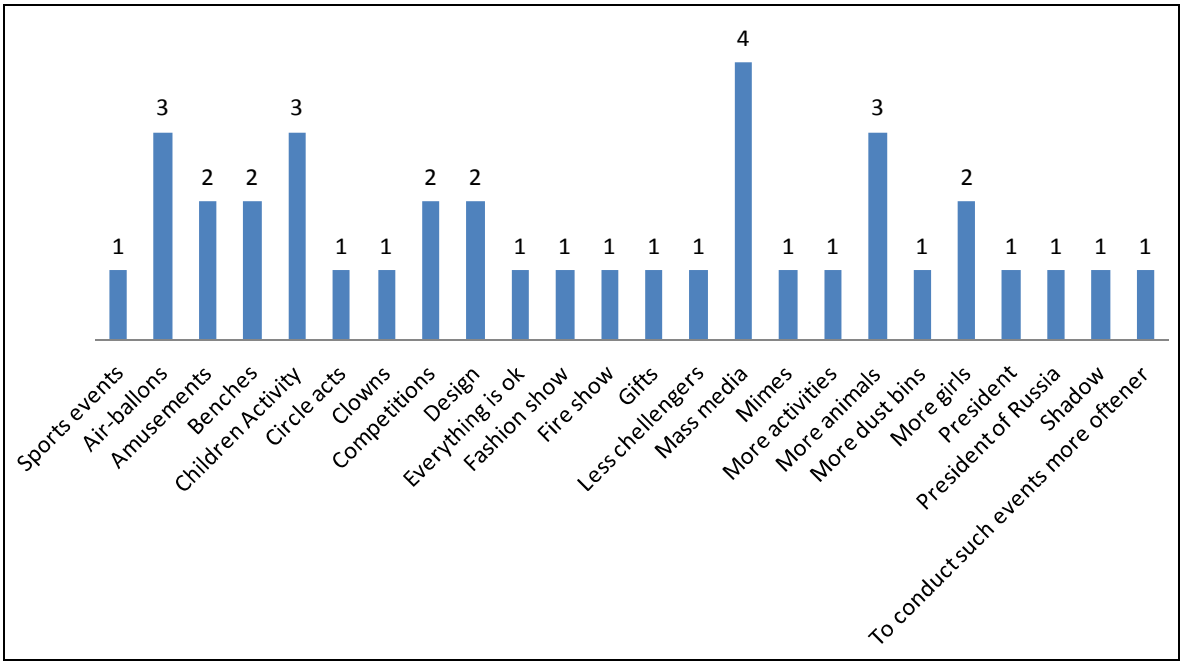
In the answer of (8) Other, majority of the answer were "All is well"



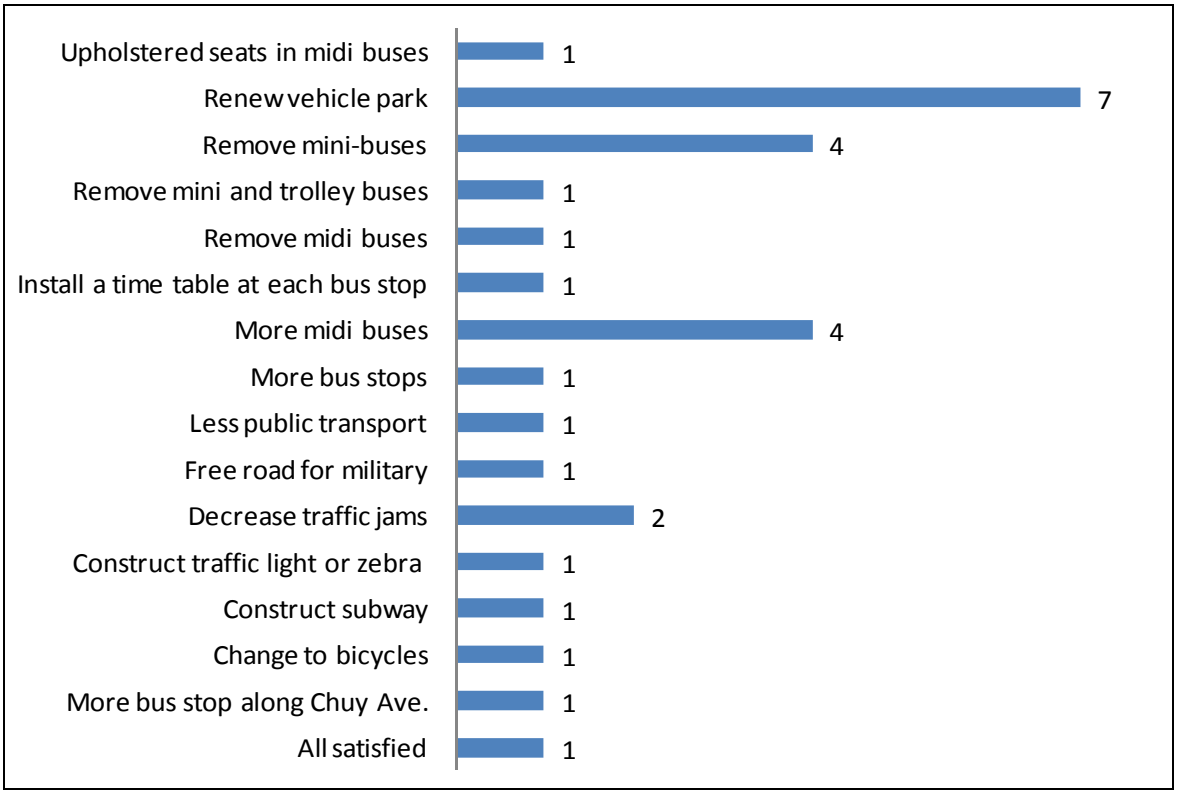
(viii) Do you have any requirement or comment for the Pedestrian Mall?



(ix) What else would you like to see on "Pedestrian Paradise"?



(x) Suggestions and comments about the urban public transport.



Interview Survey on Pedestrian Mall in Kievskaya Street

Questionnaire
(After the event)
Office and Shop

1. Age: (1) Under 21 (2) 31-40 (3) 41-50 (4) 51-60 (5) Over 61

2. Occupation:
(1) Salesman (2) Manager (3) Office Employee (4) Service Worker (5) Other ( )

3. Name of shop/office

4. Do you like to have pedestrian prioritized (car free) street on holiday?
Yes/No

5. If YES, how often would you like to have it? Would you suggest the candidate street?
1) Once a month
2) Once a year
3) Once a week
4) Name of the candidate street ( )

6. If NO, please write down your comment.

7. What event did you enjoy most during pedestrian paradise?
(1) Rolller's block (Specify more)
(2) Art Block (Specify more)
(3) Dancer's block (Specify more)
(4) Musition's block (Specify more)
(5) Young Traffic Police Block (Specify more)
(6) Special sale in the street
(7) Street shop (Specify more)
(8) Other (Specify more)

(3) Visitor Counting Survey

Visitor Counting Survey was conducted during the Pedestrian Mall implementation to evaluate number of visitors during the day of the event. The detail of the survey is shown below.

(a) Duration of the survey: From 10:00-20:00

(b) Target Area: The Pedestrian Mall Zone on Kievskaya street

(c) Method: The target area was divided in 12 blocks in each 50 m. Counting was conducted every hour in each block.

(d) Result:

The results are shown in **Figure A 23-1.4-6** and **Figure A 23-1.4-7**. The average numbers of visitors are around 2,600 persons per hour.

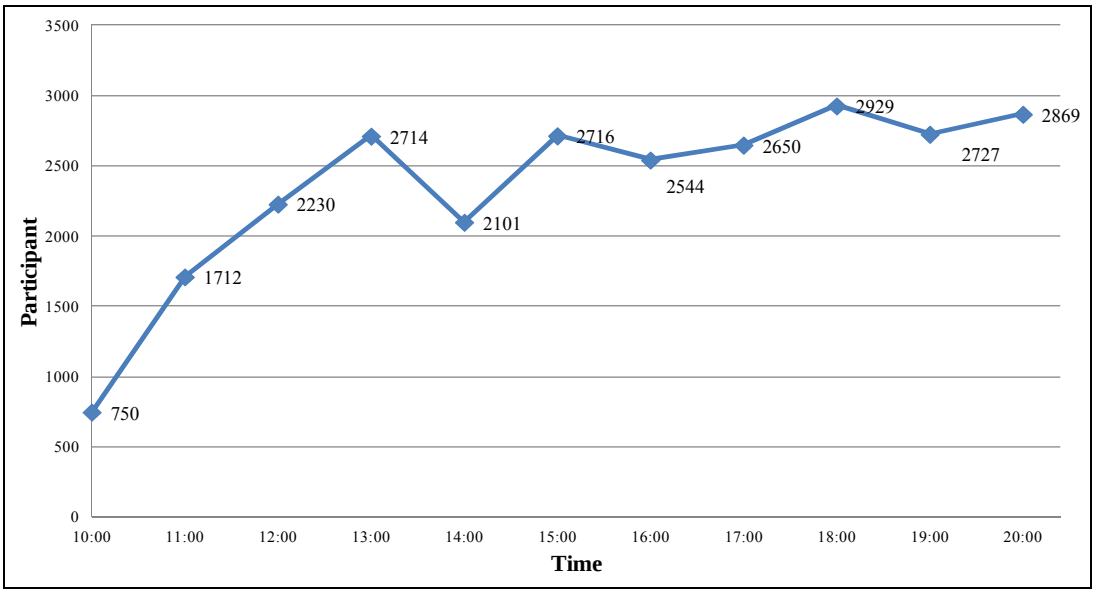


Figure A 23-1.4-6 Total Number of Visitors by Hour

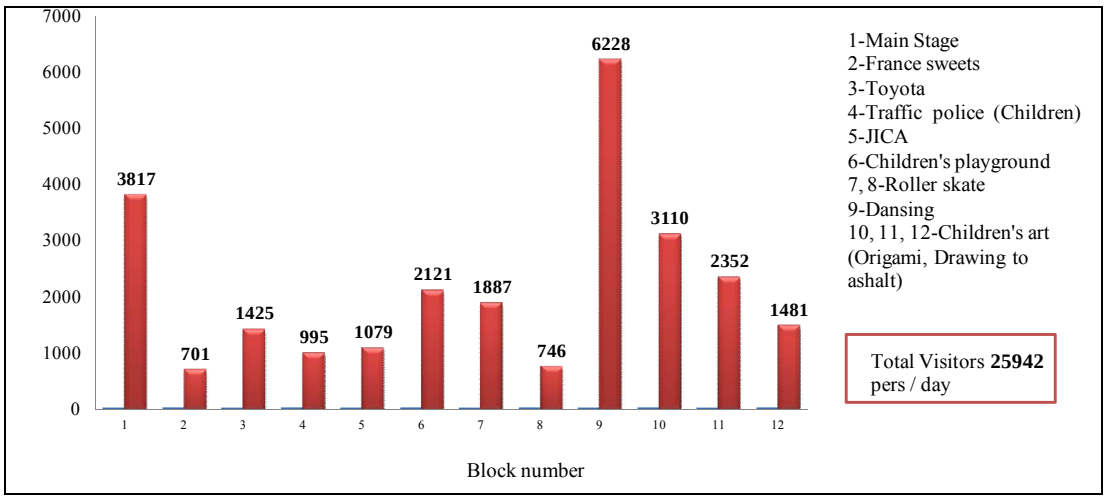


Figure A 23-1.4-7 Total Number of Visitors by Block

23-1.4.4.11 Impact of the Pedestrian Mall

(1) Number of visitor

Around 2,600 people visited the event per hour in average.

(2) Comment from visitors

Visitors are often expressing their appreciation to the event hoping to continuously conduct same kind of event in Bishkek City.

(3) Impact from participated organization and shops

Photo Participatory Sports Event

- ✓ There was no comment on shop sales impact by the Pedestrian Mall from the shops along Kievskaya Street, however, the comment from the evaluation impact survey, most of the comments are willing to have the same event on Kievskaya Street.
- ✓ All the event implementation relevant organizations conclude the event was tremendously succeeded.

Photo Traffic Safety Education by Russian Theater

- ✓ Comments on the event through internet means from visitors were mostly favourable reception, requesting to continue same kind of event.
- ✓ TOYOTA and OSCE offer next year event financial support to BCDA right after the pedestrian mall.
- ✓ The Initiative of Roza Otunbayeva International Foundation conducted a children educational event on 18-19th May 2013 inspired by the Pedestrian Mall when former President Ms. Roza Otunbayeva was attended the Pedestrian Mall.
- ✓ The event contributed capacity development of BCDA in terms of public event implementation in cooperation with relevant governmental organizations, international organizations and private sector.

23-1.4.4.12 Recommendation to sustain pedestrian mall

- ✓ Budget generation and action plan to conduct same kind of event need to be prepared by BCDA.
- ✓ Promote more strategic involvement of private sector to energize economic activity in the center of Bishkek City.
- ✓ Create HP to grasp people's opinion for the event contents, theme and target.
- ✓ Create public and private network to exchange opinions and to conduct event.
- ✓ More specific theme or event can be considered depend on city and people's needs.

APPENDIX 23-2 CAPACITY DEVELOPMENT AND TRAINING

23-2.1 Activities

The followings are the conducted JICA Study Team's Capacity Development and Technology Transfer related activities.

- ✓ Baseline Survey of relevant organizations (Organization and personnel)
- ✓ Working Group (WG) and Planning Group (PG) set up
- ✓ Work Shop, Seminar and Trainings (WGs, PGs and University)
- ✓ Conduct the 1st and 2nd Training in Japan

23-2.2 Methodology of Capacity Development and Technology Transfer

In order to implement effective technology transfer in the Study, the Study Team divided the relevant C/Ps into WGs and PG. **Figure 23-2.2-1** shows the structure of the planning & working groups.

In this Study, capacity assessment, development and technology transfer activities including the selection of candidates for the training in Japan were considered based on the groups. However, all seminars and meetings conducted by the Study Team during the Study are open to all relevant members' participation regardless of their position, organization and specialty.

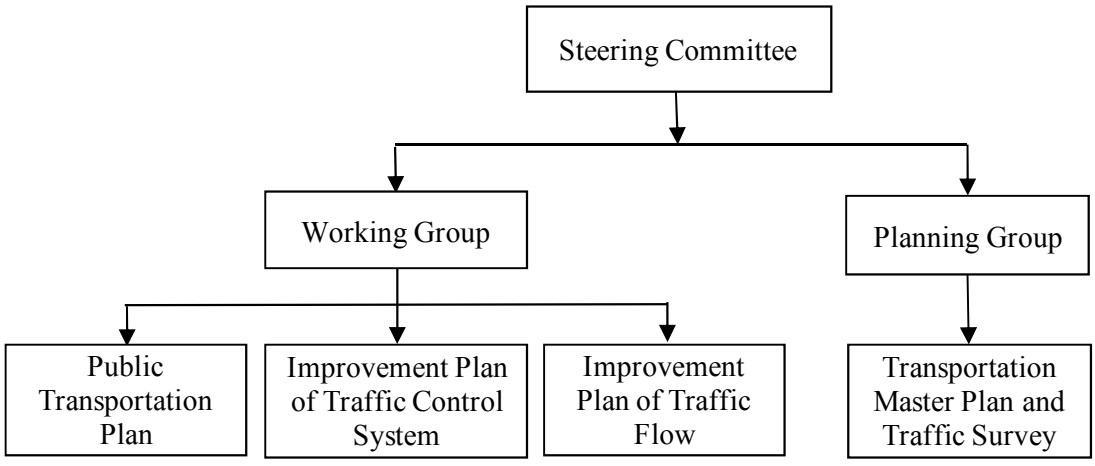


Figure 23-2.2-1 Organization of Relevant Working Groups and Planning Group by Target Issue

23-2.3 Collection of Basic Data

As the first stage of capacity assessment, dissemination of the questionnaire to the relevant organizations was conducted. The Study Team requested C/P organizations to fill out the questionnaires. The detail of the questionnaire is shown in **Table23-2.3-1** and **Table 23-2.3-2**.

(1) Name of the Relevant Organizations

(a) Bishkek City Development Agency (BCDA)

(b) Urban Transport Department (UTD)

(c) Bishkek Trolleybus Department (BTD)

(d) Bishkek Passenger Transport Enterprise (BPTE)

(e) Capital Construction Department (CCD)

(f) Bishkek City Main Traffic Safety Department (BCMTSD)

(g) Bishkek City Main Department of Architecture & Urban Construction (BMDAU)

Table 23-2.3-1 Contents of the Questionnaire

Questionnaires by JICA STUDY TEAM for Improvement of Urban Transportation in Bishkek City of the Kyrgyz Republic

(Organization/Personnel)

Name of the Organization:

- Role of your organization
- Organization Structure of the agency -Name of the relevant departments/divisions of the JICA Study
- Number of personnel in the above relevant departments/divisions
- Name of the person who is supposed to work with the JICA Study Team, his/her occupation and background (Please fill out the attached form)
- Are there any plan/measures/activities for the public transportation?
- Project/support from international aid agency for public transportation plan in present, past and future
- Annual budget for traffic control filed

Note: The expressions of questions were slightly changed depends on the organization, however the objectives of the questions were same. The Study Team has not obtained all the answers from the Study relevant organizations yet. The analysis of answer is still to be conducted.

Table 23-2.3-2 Personnel Data Questionnaire Form

Personnel Data		
		JICA Study Team
Organization		
Department		
Division		
Title		
Name	Mr./Ms.	
Date of birth		**Age**
Background		
Education	Last education 1 Doctor 2 Master 3 University 4 Colledge 5 High School	
	5 Training School 6 Studied in overseas	
	Name of the last school	
	Major/Subject	
Qualification/Specialty	1 Engineer 2 Technician 3 Administration 4 Others ( )	
Lisence		
Work Experience	Year	
Training Experience	In Kyrgyz	
	Overseas	
What kind of training would you like to join?		

23-2.4 Result of the Questionnaire Survey

The Study Team received replies of the questionnaires from a part of relevant organizations. The Study Team is still collecting the replies. The answers collected so far are shown in following (1) to (7).

(1) Bishkek City Development Agency (BCDA)

Role of the agency	Strategic planning and predicting of social-economic development of the Bishkek City; participate in the investment projects by foreign countries and international organizations.
Organization Structure of the Agency	See attached organization chart
Name of the relevant departments/divisions of the JICA Study	Unit of Interrelations with External Projects
Name of the person who is supposed to work with the JICA Study Team, his/her occupation and background (Please fill out the attached form)	Director of BCDA Deputy Director of BCDA Economy and Development Program Department
Are there any plan/measures/activities for the public transportation?	- Social and economical development planning and policy setting. - Capacity development of staff by conducting training and seminar. - Promote PPP by providing city information for private sectors.

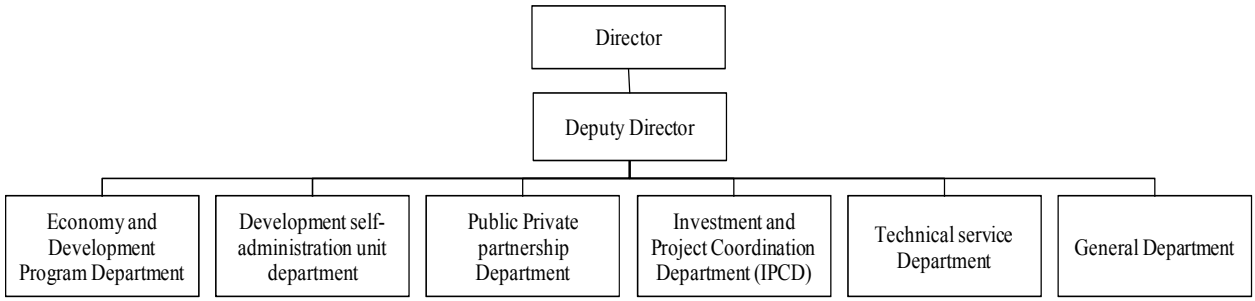


Figure 23-2.4-1 (a) Division of Bishkek City Department Agency (BCDA)

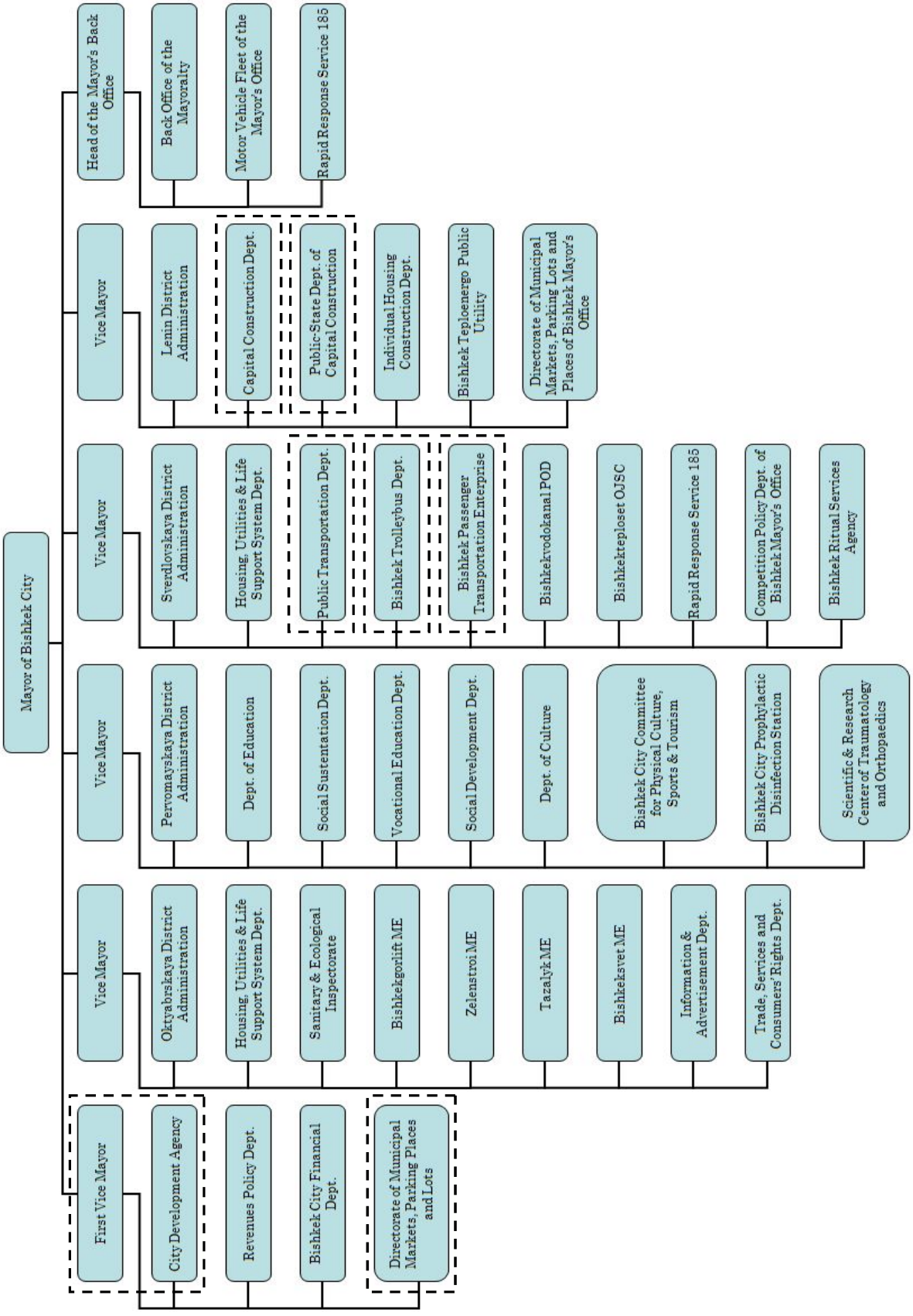


Figure 23-2.4-1 (b) A Organization of Bishkek City Department Agency (BCDA)

(2) Urban Transport Department

Role of the agency	- Formation and realization of the strategy of development, progressive scientific and technical, investment policy in the field of sustaining solutions on passenger transportation by public transportation in Bishkek City. - Coordination, regulation, analysis and management of the passenger transportation by public transport and transport enterprises, for the further development of the transport infrastructure. - Working out development programs by public transport on passenger transportation projects irrespective to the forms of ownership, and coordination of realization of the programs. - Integrated development of the transport infrastructure, and establishment of a regulated market of services in public passenger transport. - Creation of conditions in the urban territory for normal functioning of the market of service related to public passenger transport; - Protection of the rights and interests of consumers using public passenger transport; - Enlargement and increase of passenger services patterns; - Participation in policy formation of urban transport development, implementation of strategic plans, business projects designed to meet the needs of the economy and population on transportation; - Organizing and allocation of route networks in the Bishkek city; - Participation in organizing of human resources, study, training and capacity building in the field of transport; - Creation of the United Central Traffic Control (UCTC) - Organization of the traffic control service, controls to ensure planned closure outputs on the routes of the necessary number of passenger vehicles, according to contracts with entities-transporters
Organization structure of the agency	See the attached organization structure
Name of the relevant departments/divisions of the JICA Study	See the attached organization structure
Number of personnel in the above relevant departments/divisions	See attached organization structure
Name of the person who is supposed to work with the JICA Study Team, his/her occupation and background (Please fill out the attached form)	Director: G. Militskii
Are there any plan/measures/activities for the public transportation?	-
Project/support from international aid agency for public transportation plan in present, past and future	-

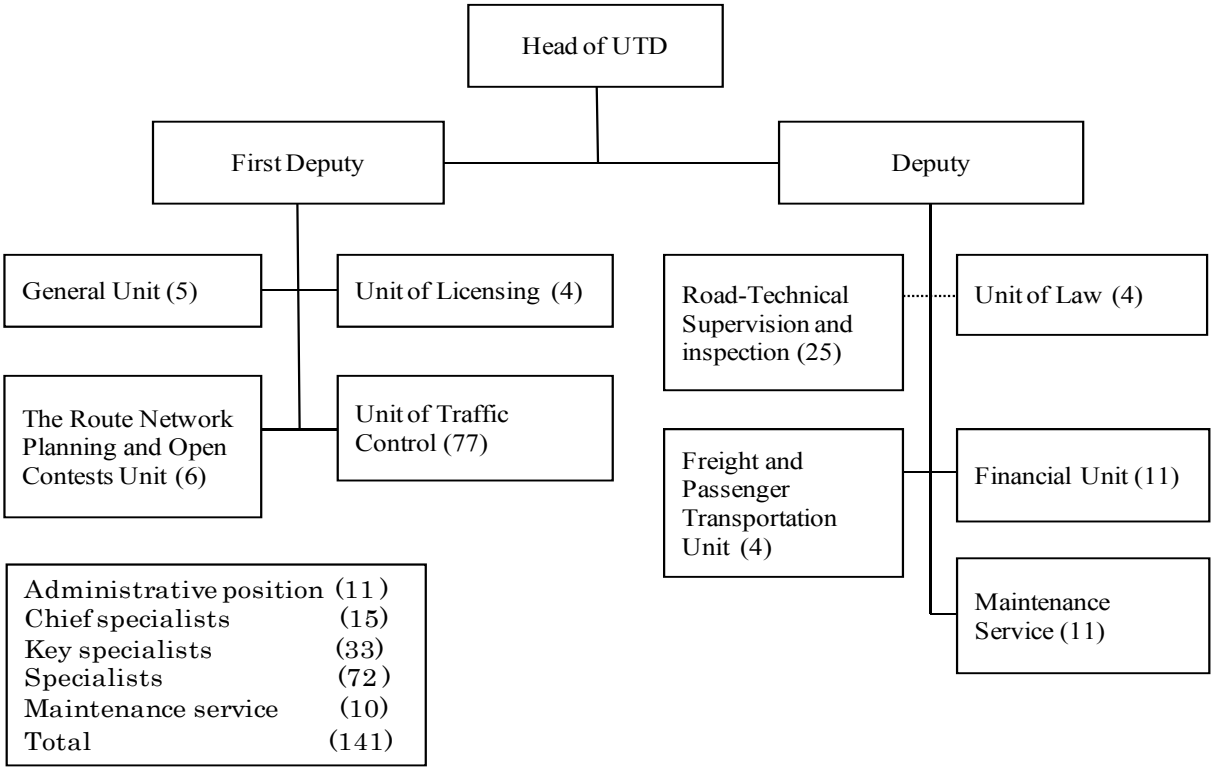


Figure 23-2.4-2 Organization Structure of Urban Transport Department

(3) Bishkek Trolley Bus Department

Role of your department	Passenger transportation
Organization Structure of the agency	-
Relevant division of the JICA Study	Technical department/ Energy department
Number of personnel in the JICA Study relevant division	Technical department (1) Energy department (1)
Name of the person who is supposed to work with the JICA Study Team, his/her occupation and background (Please fill out the attached form)	See the personnel data
Are there any plan/change/measure for public transportation plan?	-
Project/support from international aid agency for public transportation plan in present, past and future	At present we cooperate with European Bank for Reconstruction and Development for renewal of fleet of trolleybus and traction substation

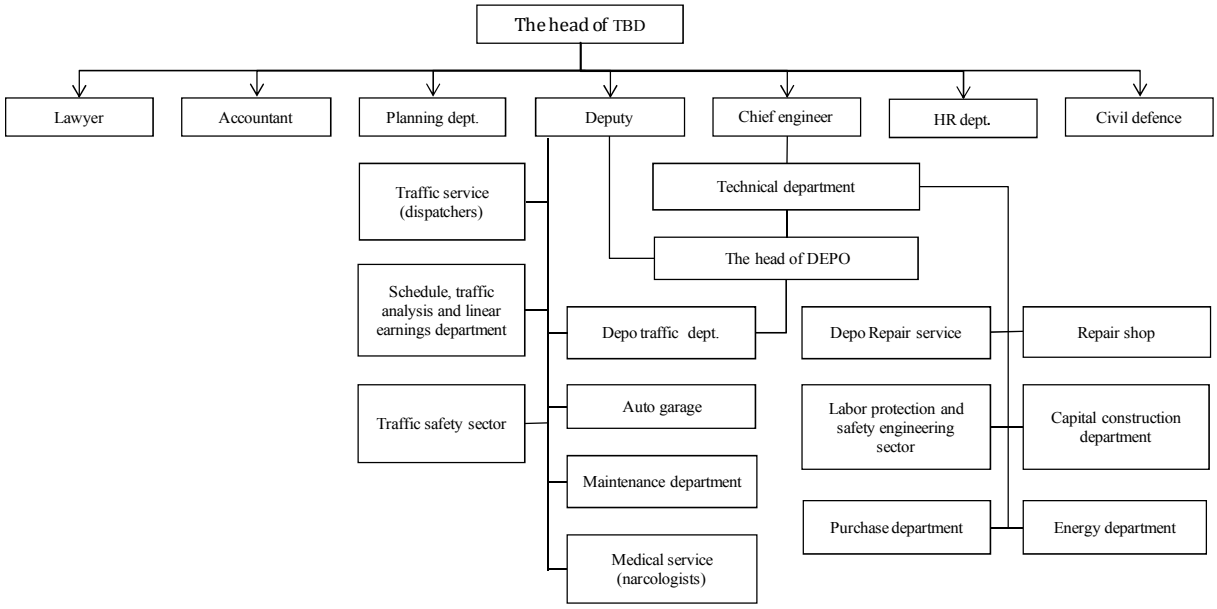


Figure 23-2.4-3 Organization Structure of Trolley Bus Department

(4) Bishkek Passenger Transport Enterprise

Role of your department	-
Organization structure of the agency	See the attached organization structure
Relevant division of the JICA Study	Maintenance and Technical Divisions
Number of personnel in the JICA Study relevant division	Maintenance div: 2 Technical div.: 3
Name of the person who is supposed to work with the JICA Study Team, his/her occupation and background (Please fill out the attached form)	Volkodav Sergey Victorovich, the chief of Technical division, full highest education, work experience: 28 years; Kravcova Ludmila Evgenyevna, specialist of Information Technologies, middle-technical education, work experience: 32 years
Are there any plan/change/measure for public transportation plan?	- Optimization of the route network schemes - Reduction of planned outputs of microbuses, overlapping bus routes - Initiation of cashless fare (plastic cards) - Monitoring the movement of buses - Clearing bus stops from private transport
Project/support from international aid agency for public transportation plan in present, past and future	Discussion on initiation of plastic card fares – EBRD

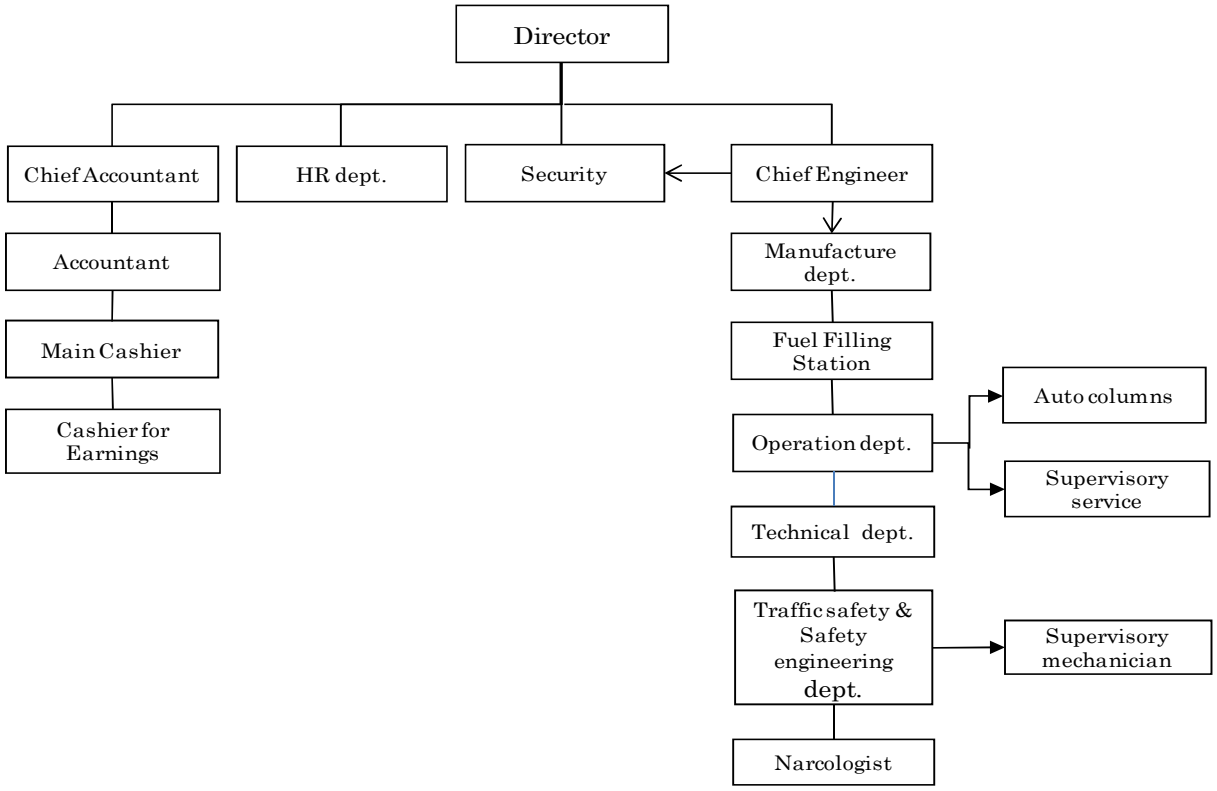


Figure 23-2.4-4 Organization Structure of Bishkek Passenger Transport Enterprise

(5) Public State Department of Capital Construction

Role of your department	Infrastructure development of housing estates of Bishkek
Organization structure of the agency	See the organization structure below
Relevant division of the JICA Study	-
Number of personnel in the JICA Study relevant division	39
Name of the person who is supposed to work with the JICA Study Team, his/her occupation and background (Please fill out the attached form)	Key specialist of Engineering Supervision: Mukaev D
Are there any plan/change/measure for public transportation plan?	-
Project/support from international aid agency for public transportation plan in present, past and future	-

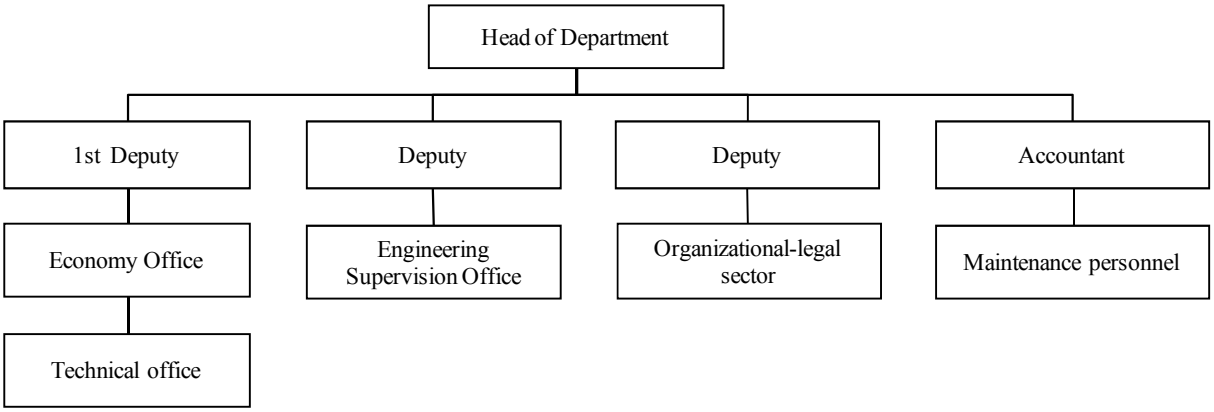


Figure 23-2.4-5 Organization Structure of Public State Department of Capital Construction

(6) Capital Construction Department

Role of your department	The Department is the main ordering party of construction and capital repairs.
Organization structure of the agency	-
Relevant division of the JICA Study	Project-engineering division
Number of personnel in the JICA Study relevant division	-
Name of the person who is supposed to work with the JICA Study Team, his/her occupation and background (Please fill out the attached form)	- Apsemetov A.M., the chief of the Project-Engineering Division, has a highest education - Abrashitov M., chief specialist of the division, has a highest education
Are there any plan/change/measure for public transportation plan?	-
Project/support from international aid agency for public transportation plan in present, past and future:	-

(7) Bishkek City Main Traffic Safety Department (BCMTSD)

Role of your department	Traffic safety guarding in Bishkek city
Organization Structure of the agency	See the attached organization structure
Relevant division of the JICA Study	Division of Road Inspection
Number of personnel in the JICA Study relevant division	2
Name of the person who is supposed to work with the JICA Study Team, his/her occupation and background (Please fill out the attached form)	- Engineer of Road Inspection Division of the Bishkek city Main Traffic Safety Department, lieutenan of the police-Jylkychiev Akjoltoi Keldibekovich - Engineer of Road Inspection Division of the Bishkek city Main Traffic Safety Department, lieutenan of the police-Shergaziev Uzakbek Janybekovich
Are there any plan/change/measure for public transportation plan?	-
Project/support from international aid agency for public transportation plan in present, past and future:	-

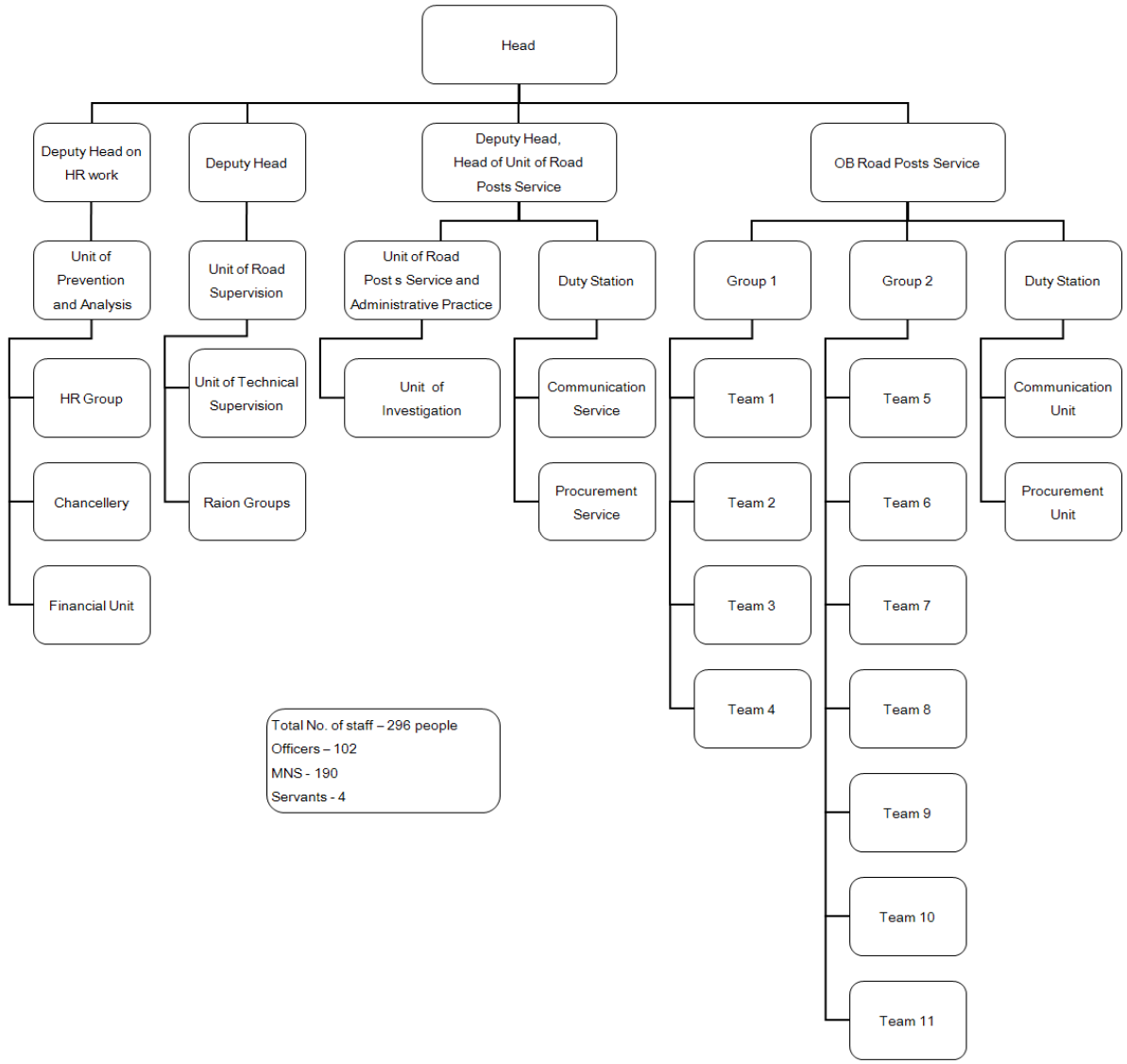


Figure 23-2.4-6 Organization Structure of Bishkek City Main Traffic Safety Department (MOI)

23-2.5 WG Meeting, Work Shop Seminar and Training in Kyrgyz

The Working Groups and Planning Group seminars and Trainings are being conducted frequently. The criteria and organization in charge of each WGs and PG are shown in **Table 23-2.5-1**, however, the conducted meetings' participants were not strictly categorized and invited by WGs and PG work criteria, staffs who were interested in the seminars were freely participated. **Table 23-2.5-2** shows conducted meetings and seminar.

Table 23-2.5-1 Working Criteria of the Study Relevant Members

＊-Working Goup Leader G-Main V-Sub P-Relevant

Urban Transport relevant governmental Organinzation/C/P	Planning Group	Working Group			
		Traffic Flow Improvement	Public Transport	Traffic Control System	Person in Charge
① Bishkek City Development Agency	G	P	P	P	
② Capital Construction Department	G	G＊	P	P	
③ Derectorate of Municipal Market, Parking Places & Lots	P	G	V	V	
④ Urban Transport Department	G	V	G＊		
⑤ Bishkek Trolley Bus Department	V	P	G		
⑥ Bishkek Passenger Transport Enterprise	V	P	G		
⑦ Bishkek City Main Traffic Safety Department	V	G	V	G＊	
⑧ Costruction, Mounting & Operations Department (MOI)	V	G	V	G	
⑨ Bishkek City Main Department of Architecture & Urban Construction	G＊	G	P	P	
⑩ Public State Department of Capital Construction	G	P	P	P	
⑪ Traffic Police Safety Department（MOI）	V	V	V	G	
Team Leader / Comprehensive Transport Policy	G	G	G	G	Mr. Toda Toshinori
Deputy Team Leader/Comprehensive Transport Plan	G	G	G	G	Mr. Isomoto Kenji
Urban Plan	G		V		Mr.Koyama Takashi
Land Use Plan/GIS (I)	G		V		Mr. Tokura Masaru
Public Transportation Plan	G	V	G	V	Mr. Kunimasa Yoshiro
Traffic Control System Improvement Plan				G	Mr. Matsuoka Seiya
Intersection Improvement Plan (I)		G			Mr. Fujiwara Hidekatsu
Intersection Improvement Plan (II)		G			Mr. Tochinaka Masateru
Traffic Survey / Analysis	G	G	G	G	Mr. Yashiro Shuichi
Environmental and Social Considerations	V				Mr. Tanoguchi Taiji
Training / Capacity Development	P	P	P	P	Ms. Mishima Ai
GIS (II)	V				Mr. Pantha Bhoj Raj
Coordination / Traffic Survey and Analysis	P	P	P	P	Mr. Abdukadirov Rasulbek

Table 23-2.5-2 The List of Conducted Main Meeting, Work Shop, Seminar and Training

Activity and Title	Date	Venue	Contents	Number of Participants
1st WG Workshop	3 August 2011	Architecture and Construction Department	Explanation of the JICA Study Activities	18
1st Steering committee	5 August 2011	Bishkek City Mayor's Office	Explanation of the JICA Study Activities	12
2nd WG Workshop	17 August 2011	BCDA	Intersection Improvement Plan, Simulation of output samples	13
3rd WG Workshop	16 September 2011	BCDA	Introduction of Traffic Survey and Progress of Pilot Project	15
Seminar in University	19 September 2011	Kyrgyz state University of Construction, transport and Communication	Explanation of the JICA Study, EIA in Japan	120
4th WG Workshop	13 October 2011	BCDA	Intersection Improvement Plan, progress of Pilot Project	13
5th WG Workshop	30 November 2011	BCDA	Signal Control and Results of Intersection	11
6th WG Workshop	12 December 2011	BCDA	Explanation of Work Progress of Urban Planning and GIS Related Activities	8
7th WG Workshop	16 December 2011	BCDA	Explanation of Traffic Survey	12
8th WG Workshop	16 December 2011	BCDA	Progress of urban planning	9
9th WG Workshop	16 December 2011	BCDA	Overview of GIS	9
2nd Steering committee	16 February 2012	Bishkek City Mayor's Office	Explanation of urban plan, public transportation survey, pedestrian paradise.	12
10th WG Workshop	4 May, 2012	BCDA	Pilot Project III- Traffic Signal System Improvement Work	7
11th WG Workshop	5th of June, 2012	BCDA	Environmental and Social Considerations	9
12th WG Workshop	28 August 2012	BCDA	Parking Survey Analysis and Public Transportation Survey Results	11
1st training	29 August 2012	BCDA	GIS software operation training	14
13th WG Workshop	6 September 2012	BCDA	Approach of Environment Improvement regarding Traffic on the JICA Study	6
2nd training	1st of November	BCDA	Traffic Demand Forecast using JICA STRADA	6
14th WG Workshop	18 April 2013	BCDA	Evaluation of intersection improvement social experiment.	11
15th WG Workshop	30 April, 2013	BCDA	Land Use Management and Public Transportation Improvement Plan	13

23-2.5.1 Training on Geographic Information System (GIS)

(1) Introduction and Objective of Training

Geographic Information System (GIS) has been emerging as a powerful tool for planning, analysis and management of data in various fields including transportation planning. In this Project, GIS has been used as a tool for urban transportation improvement such as for analysis and planning of land use, public transportation and urban transportation facilities. A large volume of data has been prepared and used for the analysis and planning. Also, the Project has purchased GIS software including computer with high specification (Workstation) as technical cooperation equipment which will be handover to the counterpart after completion of the Project. Therefore, one day GIS training has been organized for counterpart officials to familiarize them about GIS software, GIS data developed under the project and share the knowledge of GIS among the JICA Study Team and the counterparts officials. The GIS training was organized to achieve the following two main objectives;

(a) To enhance the capacity of the counterparts official in using GIS in analysis and planning for the improvement of urban transportation system

(b) To fully utilize the GIS system (software & workstation computer) purchased under the project as technical cooperation equipment in the future too by the counterparts

(2) Participants of the Training

Since GIS can be used in several fields of municipal organization as planning, analysis and management tool, the JICA Study Team requested to BCDA to invite participants from all concerned organizations of Bishkek City Government. **Table 23-2.5-3** shows the details of training participants. Since it is the responsibility of Architectural Department to prepare urban development plan, five (5) participants have been attended from the department.

Table 23-2.5-3 Participants of the Training

SN	Name	Position	Affiliation/Organization
1	Ms. Abdieva Jannat	Leading Expert	Architectural Department
2	Mr. Tashtanbekov Baimyraza	Expert	
3	Mr. Junushaliev Omurbek	Expert	
4	Mr. Begimkulov Kyialbek	Leading Expert	
5	Mr. Asylgaziev Nurlan	Engineer (Land)	
6	Mr. Bakushev Murat	Leading Expert	Capital Construction
7	Mr. Belousov Dmitryi	Leading Expert	
8	Ms. Moldokulova Gulzara	Leading Expert	Public State Department of Capital Construction
9	Ms. Seitova Asel	Leading Expert	
10	Mr. Kojogulov Bakytbek	Leading Expert	Urban Transport Department
11	Mr. Ibraev Azat	Engineer	Bishkek City Main Traffic Safety Department
12	Mr. Chokiev Maksat	Chief Engineer	Bishkek City Development Agency
13	Mr. Kojokulov Kubat	Leading Expert	
14	Ms. Sindeeva Mariya	Project Assistant	JICA Study Team

(3) Training Program

The details of the one day training program on 29 August, 2012 are shown below. Training session was divided into three sessions as session-I, session-II and session-III.

The Study on Improvement of Urban Transportation in Bishkek City

of the Kyrgyz Republic

Basic GIS Training on Geographic Information System (GIS)

Date: 29 August, 2012

Venue: Training Room, Bishkek City Development Agency, Bishkek

Training Program

REGISTRATION AND OPENING

9:00 – 9:30 Registration

9.30 – 9.40 Explanation of the Outline of the Training Program

- Dr. B. R. PANTHA

TRAINING SESSIONS

(1) Session-I: GIS Overview and Details of GIS Works under the Project

9:40 – 10:40 Overview of GIS, Introduction of Basic GIS Operation & Tools

- Ms. E. MELNIKOVA and Dr. B. R. PANTHA, JICA Study Team

Coffee Break (10:40 – 11:00)

11:00 – 11:30 Demonstration of Various GIS Works are being done under this Project

- Ms. E. MELNIKOVA and Dr. B. R. PANTHA, JICA Study Team

11:30 – 12:00 Questions and Answers

Lunch Break (12:00 – 13:00)

(2) Session-II: Practice with Real GIS Data (with trial version of ArcGIS Software)

13:00 – 14:45 Practice in GIS

- All Participants with facilitation from Ms. E. MELNIKOVA and Dr. PANTHA

Coffee Break (14:45 – 15:00)

CERTIFICATE DISTRIBUTION (15:00 -15:10)

(3) Session -III (Optional)

15:10 – 17:00 Self–Practice

~End~

(4) Materials and Method of the Training

Since training was conducted only one day and GIS needs time to be familiarized, training materials were prepared in detailed and provided to all participants considering that they can refer to the training materials in the future and can do self-practice in GIS. While preparing training materials, project data has been used as much as possible wherever applicable to make them familiar with the details of data developed under the Project. Since GIS training has been conducted using ArcGIS 10.1 software, all training materials were also prepared which applies for ArcGIS. However, at the beginning of the training program an overview of various GIS software was explained.

Trial version of ArcGIS 10.1 has been installed in eight (8) computers of BCDA. Since there were 14 participants and only 8 computers were available during training, some participants were shared the computer and did their practice together.

In the first session of the training, an overview of GIS and details of GIS works are being done under the project were explained using power point slides. In the second session, practice in ArcGIS with real project was conducted. After the second session, training certificates were distributed to all participants by Team Leader of the JICA Study Team. The third session was designed as optional for providing opportunity to self-practice for interested participants. An interactive questions and answers session was also provided.

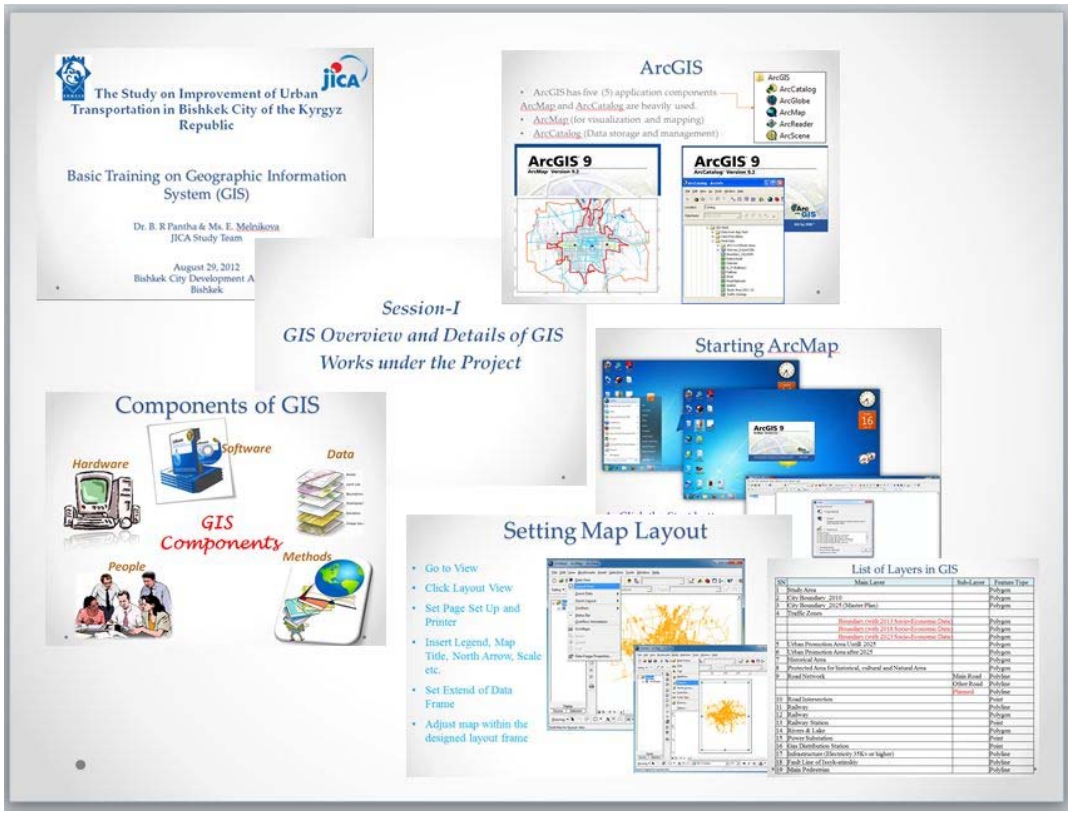
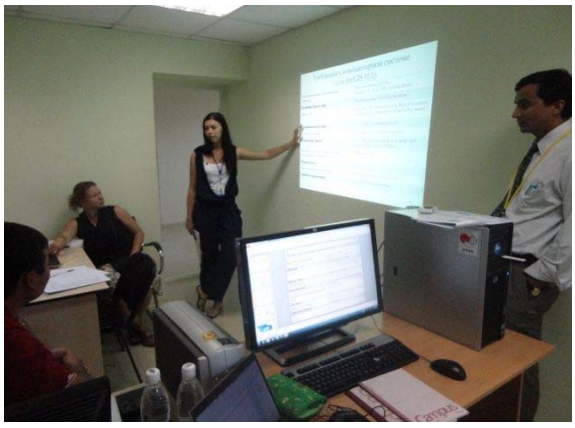


Figure 23-2.5-1 Training Materials (representative slides only)

Self-Evaluation Before the Training

Presenting about GIS



Answering the Participant's Question

Listening Presentation

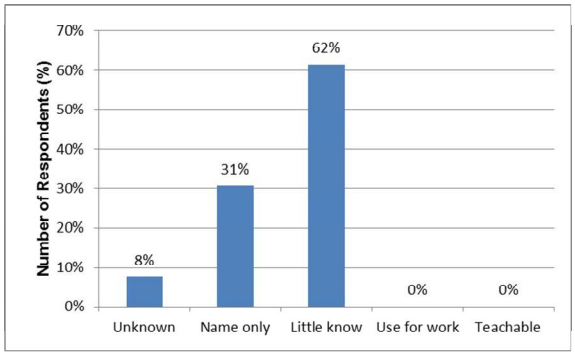
Self –Practicing of ArcGIS

Certificate Distribution from Team Leader

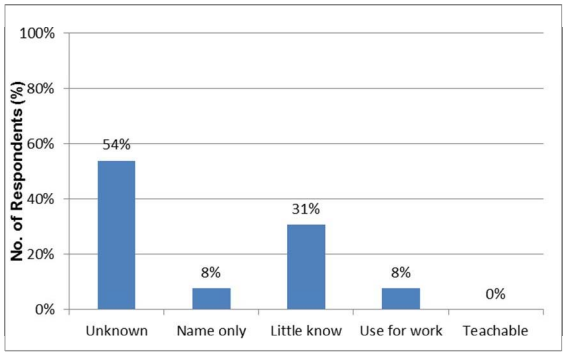
Figure 23-2.5-2 Glimpses of the Training

(5) Outcomes of the Training

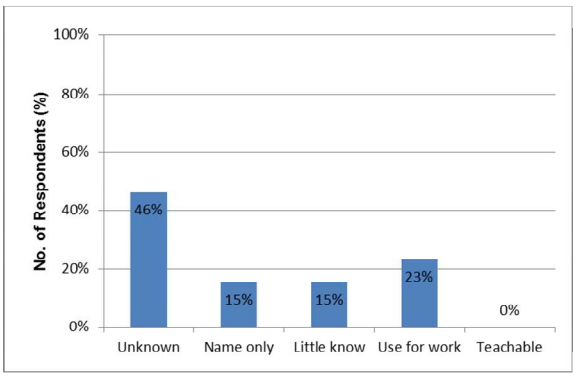
Evaluation of training was carried out using evaluation questionnaire for before and after the training by evaluating the responses of the participants. A total of eleven questions were asked to the participants before the training and four (4) questions were asked at the end of the training. Summary of the evaluation results is shown **Figure 23-2.5-3**, **23-2.5-4** and **23-2.5-5**.



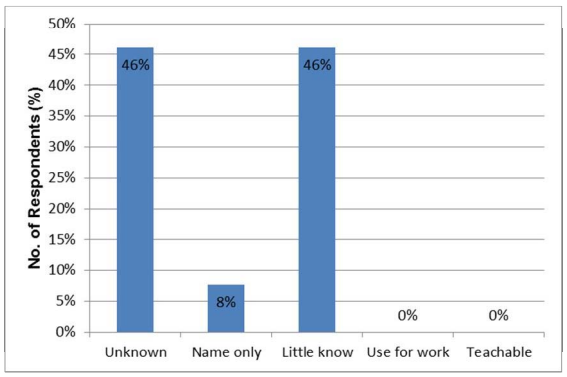
Q.1. Do you know that GIS can be used as a planning and management tool in various sectors?



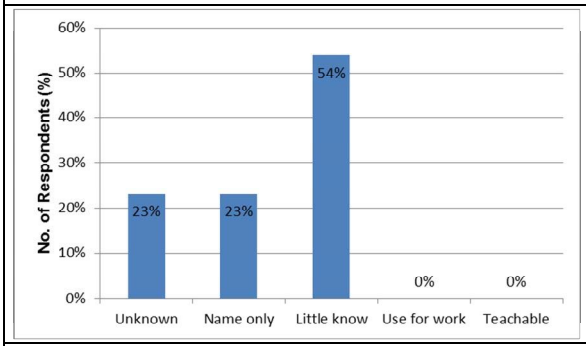
Q.2. Do you know about various GIS Software?



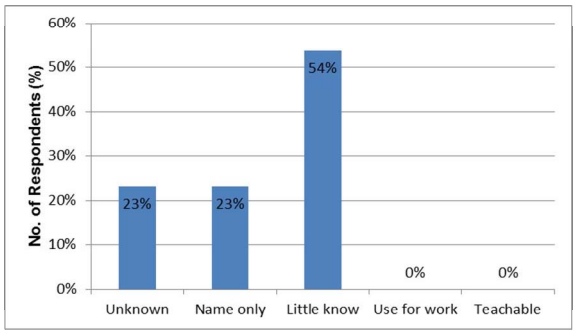
Q.3. Do you know about ArcGIS software?



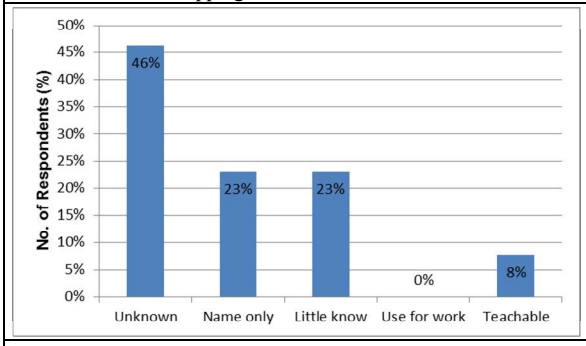
Q.4. Do you know operational procedure of ArcGIS?



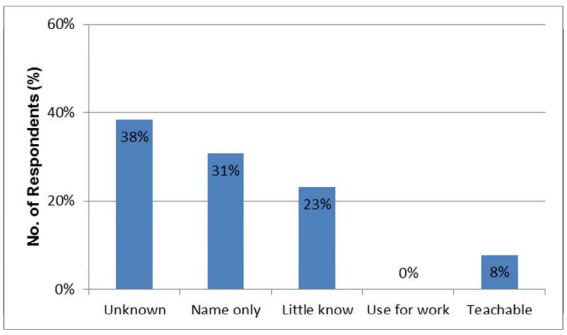
Q.5. Do you know about capacity of ArcGIS which can function as database and mapping software?



Q.6. Do you know about applicability of ArcGIS in transportation and urban planning?

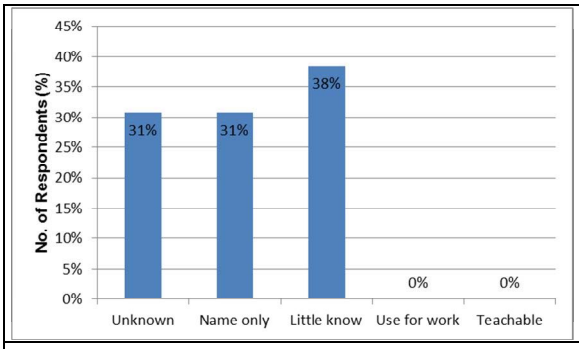


Q.7. Do you know about the various analytical capacities of ArcGIS such as Spatial Analyst & Network Analyst?

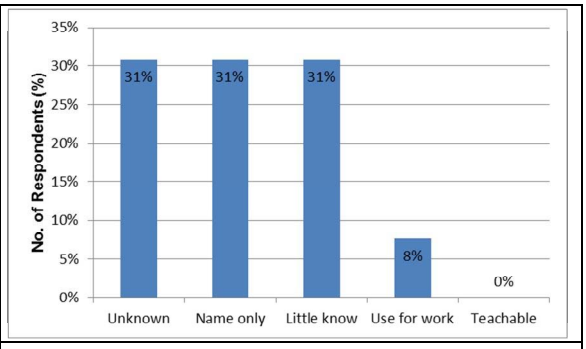


Q.8. Do you know about applicability of ArcGIS for infrastructure asset management?

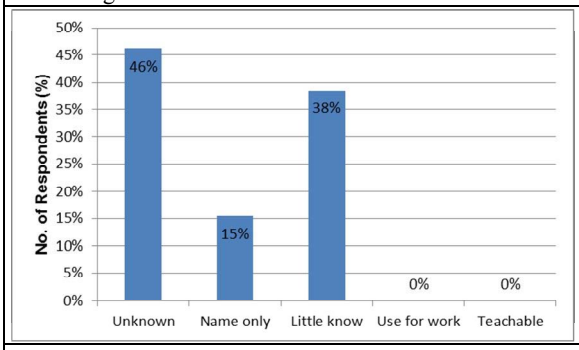
Figure 23-2.5-3 Evaluation of Participants before Training (1/2)



Q.9. Do you know about the applicability of GIS in traffic management?



Q.10. Do you know about the applicability of GIS in planning and management of public transportation?

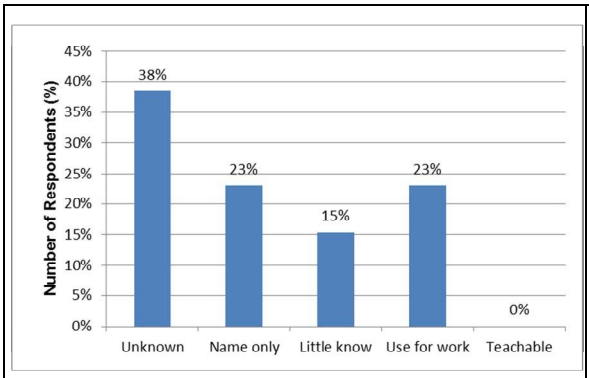


Q.11. Do you know about the data convertibility between ArcGIS and other designing and mapping software?

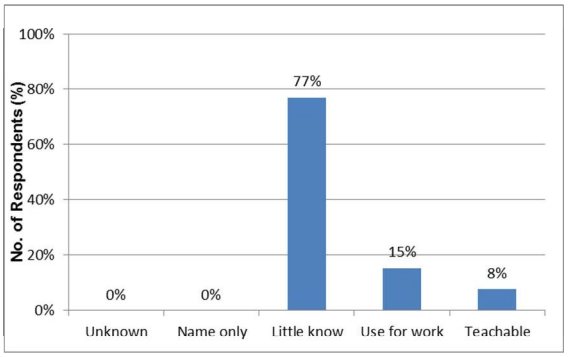
Figure 23-2.5-4 Evaluation of Participants before Training (2/2)

The results of pre-training evaluation revealed that 62% of participants little know about GIS and about 54% of participants little know about applicability of ArcGIS in transportation and urban planning. However, a minimal percentage of participants use GIS for work. About 46% of participants responded that they neither know about ArcGIS nor operational procedure of ArcGIS. Similarly, equal percentage (i.e. 46%) of participants answered that they know little about operational procedure of ArcGIS.

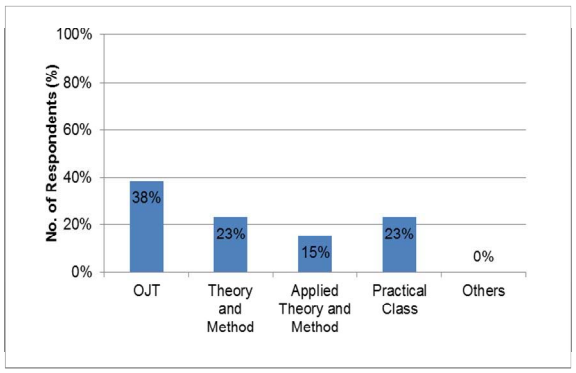
Figure 7.1-5 shows that 77% of participants responded that they little know about GIS after the training which was only 15% in pre-training evaluation. 38% of participants responded that they want to participate in OJT in the future to learn and use GIS in their work. Similarly 23% of participants responded that they want more theoretical and practical classes in the future. At the end of the training, participants wrote comments as "training is understandable" by 36%, "training is very interesting" by 29% and needed more training and practical class by 36%.



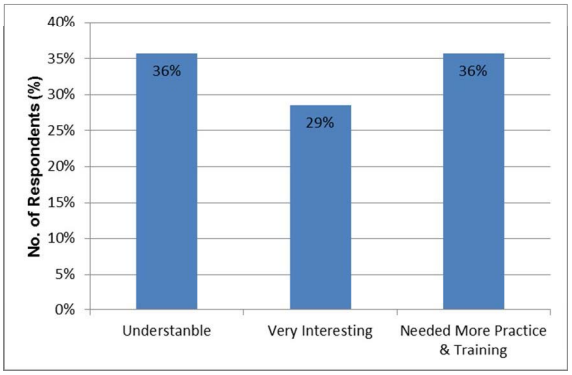
Q.1. Before the today's training, did you know about GIS?



Q.2. After the today's training, do you understand about GIS?



Q.3. If you answer 1, 2 &3, please write what kind of training do you want in the future?



Q.4. Any comment for the today's training?

Figure 23-2.5-5 Post-Training Evaluation

(6) Issues and Recommendation

The following issues were identified during the Study by hearing with counterpart officials and GIS training participants.

(a) Bishkek City Government has no digital database of municipal assets and planning documents in the form of GIS platform. Most of the documents are also available in hard-copy only and not easily accessible to concerned stakeholders.

(b) It is necessary to share planning and development issues with local people and it is crucial for sustainable participatory development approach. Therefore, GIS can play vital role in sharing of selected information more effectively.

(c) Counterparts have strong motivation to use GIS for their planning and management work but they are not familiar with applicability of GIS. Therefore, they need more orientation / training on it.

(d) Architectural department expressed their intention to manage all municipal assets such as road, water supply, telecommunication, gas, and sewer lines in GIS platforms. However, officials of architectural department are not familiar with GIS. One person from the department has engaged for the OJT with the Project for a short time only.

(e) Improvement and expansion of public transportation in Bishkek City is crucial issue. Therefore, a systematic program for bus route planning, bus stop management and route searching (on the internet) is necessary and these types of facilities can be done effectively in GIS with combination of some computer programming.

GIS as being the most efficient tool for integration of all type data necessary for urban infrastructure and transport sector, it can be utilized efficiently in planning, design, construction, maintenance and management of the urban transport systems. Therefore, it is recommended to use GIS as a planning and management tool based on the analysis of the current issues and possibility of using GIS as a planning and management tool for;

- ✓ Urban Asset Management (roads, housing, water supply, sewerage, etc.)
- ✓ Land Use Planning
- ✓ Public Transportation Planning and Management
- ✓ Traffic Management including road safety and accident analysis
- ✓ Disaster Management (Evacuation Planning, etc.)

23-2.5.2 Training on JICA STRADA

(1) Introduction and Objectives

JICA STRADA is a package system for traffic forecasting. The system development project completed in 1997, lead by Prof. Hideo Nakamura of Tokyo University in cooperation with Japanese experts from the Ministry of Construction, the Ministry of Transportation and private consultants. Since then, continual upgrading has been conducted and version 3.0 as the newest package for international edition was provided to Bishkek City through the Study.

This training gave outline of traffic demand forecast and practices of actual manipulation of JICA STRADA to the counterparts.

(2) Training Program

(a) Date

Training was conducted once in November 2012. As per request from BCDA, the JICA Study Team conducted follow-up training of JICA STRADA for two days in April 2013.

(i) 1st November, 2012

(ii) 26th and 29 th April, 2013 as followup

(b) Venue

Training Room, Bishkek City Development Agency, Bishkek

(c) Participants

Participants were average six (6) persons of following organizations.

✓ Urban Transport Department

✓ Bishkek Trolleybus Department

✓ Bishkek Passenger Transport Enterprise

✓ Bishkek City Development Agency

(d) Contents

✓ Transportation Demand Forecast

✓ About JICA STRADA

✓ Actual process of modeling using JICA STRADA

✓ Exercises of JICA STRADA

Picture Training of JICA STRADA

(3) Outcomes of the Training

Through this training, participants learned a concept of traffic demand forecast and experienced actual manipulation of JICA STRADA. However, it requires further training, especially in an OJT manner, to fully understand the software.

23-2.6 Training in Japan

23-2.6.1 The 1st Training in Japan

The first training in Japan was conducted for 2 weeks during 29 January to 11 February in 2012 in order to obtain knowledge and information on traffic planning related situation in Japan. In addition to the training in Japan, the training group is supposed to visit Istanbul in Turkey to see the JICA project on Istanbul Historic District Traffic Demand Management.

The details of the training are shown in **Table 23-2.6-1** and **Table 23-2.6-2**.

Table 23-2.6-1 Members for the First Training in Japan

	Name	Occupation	Organization	Role of the Organization
1	Mr. Ismailov Murat	First Vice Mayor	Mayor's office	Substantial administrator of Bishkek City
2	Ms. Ibragimova Dinara	Life Infrastructure Agency	Life Infrastructure Department, Mayor's office	In charge of life infrastructure
3	Mr. Sharshimbaev Aibek	Director	Bishkek City Development Agency (BCDA)	Immediate organization of mayor's office, in charge of economic policy, investment environment development, development business coordination, donor coordination
4	Ms. Abdyldaeva Gulnara	Deputy Director	Bishkek City Development Agency (BCDA)	
5	Mr. Omuraliev Boronboi	Route Network Planning Specialist	Urban Transport Department	In charge of approval and authorization of enterprise, fare and route setting, management of gas stand and car wash
6	Mr. Absemetov Aidar	Chief of Production-Technical Division	Capital Construction Department	In charge of urban development Project (housing, road and lifeline)
7	Mr. Sarkulov Ymanaly	Chief	Traffic Safety Department	Urban Traffic Safety Control
8	Mr. Abdikarov Almaz	Director	Bishkek city Main Department of Architecture & Construction	In charge of urban development plan (housing, road and lifeline), agreement and approval

Table 23-2.6-2 Schedule of the First Training in Japan

Date	Contents
1/29	Travel: From Bishkek to Narita via Istanbul
1/30	Arrival at Narita
1/31	Lecture : Case of citizen's participatory Urban planning and in Japan / Traffic system
1/31	Site Visit: Traffic control center
2/1	Travel: From Tokyo to Sapporo
2/1	Lecture: Road management during sowing season / Effective and efficient measure for traffic accident considered regional characteristic.
2/2	Lecture: Person trip survey at urban area of central Hokkaido and Sapporo municipality
2/2	Travel: From Sapporo to Hiroshima
2/3	Site Visit: LRT
2/3	Lecture: Urban Transport Planning in Hiroshima
2/4	Travel: From Hiroshima to Kyoto
2/4	Site Visit: Kyoto city urban traffic
2/4	Travel: From Kyoto to Tokyo
2/5	Holiday
2/6	Site Visit: Case of BRT
2/6	Site Visit: Tokyo city traffic
2/7	Evaluation meeting at JICA
2/8	Travel: From Narita to Istanbul
2/9	Arrival at Istanbul
2/10	Lecture: Istanbul municipal office traffic control division
2/11	Travel: From Istanbul to Bishkek
2/12	Arrival

23-2.6.2 The 2nd Training in Japan

The 2nd training in Japan is supposed to be held from 11 to 24 May 2013. The main objective of the 2nd training in Japan was traffic demand control . The details are shown in the following.

(1) Strategy setting for urban transport plan

(2) Law and regulation setting for traffic relevant matters

(3) Participatory town planning process

(4) Common ICT card fare collection system for different public transportation modes and parking.

(5) Parking system including Park and Ride (P&R) and underground parking system.

Table 23-2.6-3 Members for the second Training in Japan

	Name	Occupation	Organization	Role of the organization
1	Mr.IMASHOV Torobek	Vice-mayor	Bishkek City Municipality Department of municipal services and life support	Substantial dominator of Bishkek City
2.	Mr.ABDYLDAEV Azamat	Head of Department	Bishkek Governance Finance Administration Accounting of Government Management	In charge of finance of Bishkek City
3.	Mr.DERBISHEV Malik	Chairman	Bishkek city Transport Management	In charge of transport operation business permission, fare, route, petrol, cleaning facility management.
4.	Mr.ZHANBOLOTOV Abdyzhaparkul	Deputy Chief	Bishkek Mayor office Organization of capital construction	In charge of urban development (housing, road, lifeline) project
5.	Mr.BEKITAEV Rustam	Chief of the Department	Department of Road Patrol Service	Traffic police, traffic enforcement, signal control, traffic sign installation
6.	Ms.ABDYLDAEVA Gulnara	Deputy Director	Bishkek city Development Agency	Agency directly Under mayor's office for economic policy , investment environment development, development project monitoring, communication of international donor
7.	Mr.CHOKIEV Maksat	Chief specialist	Bishkek city Development Agency Investment and projects cooperation department	Same as above

Table 23-2.6-4 Schedule of the second Training in Japan

Date	Contents
5/11	Departure from Bishkek via Moscow
5/12	Arrival at Narita
5/13	Lecture: Urban planning / Participation of citizen for urban planning / Traffic system
5/14	Yokohama city traffic site visit
5/14	Lecture: Consideration of ideal urban transportation form the cases of overseas
5/15	Discussion on National sustainable development strategy
5/15	Travel: From Tokyo to Kanazawa
5/16	Lecture and site visit: The case of TDM Kanazawa city
5/17	Discussion on National sustainable development strategy
5/17	Site visit: Kanazawa city public transportation modes and relevant facilities
5/18	Travel : From Kanazawa to Toyama
5/19	Site visit: Public transportation modes and the relevant facilities
5/20	Lecture and site visit: Smart city in Toyama/ public transportation mode and related facilities
5/21	Travel :From Toyama to Nagoya（trunk bus, bus priority lane, guide way bus）－Tokyo
5/22	Presentation and evaluation meeting
5/23	Departure from Narita
5/24	Arrival at Bishkek