

PART IV NATIONAL TRAFFIC SAFETY FIVE-YEAR ACTION PROGRAM

1 INTRODUCTION

The Five-Year Action Program (2008-2012) is the first phase implementation period of the proposed traffic safety measures in the Master Plan. This first Action Program is critical in ensuring that smooth and successful implementation of the proposed measures and shall be the basis for implementation conditions of the succeeding Action Programs.

1.1 Basic Principles for Measures Selection of the Five-Year Action Program

In order to meet the requirements of the Master Plan and the strategies presented in Subsection 3.2, Volume 3, Part I, the following basic principles are introduced:

1) Basic Principle No. 1

The “All-people” and “Comprehensiveness” perspectives as indicated in the existing government policies as well as the “4Es” and “Stakeholders” approaches should guide the planning and implementation of measures indicated in this Action Program. The importance of these perspectives and approaches are clear, particularly in the implementation of Resolution No. 32/2007/NQ-CP dated 29 June 2008. Thus, the active participation of the whole political system is one of most important conditions for the success of this Action Program.

2) Basic Principle No. 2

This Action Program should consider the forecasted special political and socio-economic features as well as the traffic safety conditions in the whole country until 2012. During this period, Vietnam is in transition to accelerate its economic development and overcome its being classified among countries within the “poor threshold” in the world map. One of the characteristics of this Action Program period is the anticipated continuously increasing growth rates of private vehicle ownership, and thus very high motorization rate, for both motorcycles and cars. Given the forecasted high growth percentage of the vehicles and drivers, a slower implementation of necessary countermeasures (e.g. enhanced drivers’ licensing renewal system) will lead to more complex situations and implementation in the later years.

3) Basic Principle No. 3

The Action Program should be integrated with all related existing orientations, policies, plans of the Government, in particular, the approved “Scheme to Enhance the National Traffic Safety and Order until 2010”, and other socio-economic development strategies/plans.

4) Basic Principle No. 4

Among the various proposed measures from the Master Plan, those that are considered “of critical impact”, meaning, those measures whose implementation will result in

significant impact in Vietnam's general traffic safety situation as well as to other proposed measures should be clarified and should receive high priority. Such measures can be recognized as those which result in the: (i) improvement of capacities of traffic safety related agencies; (ii) enhancement of institutional framework for traffic safety; and (iii) development of traffic culture, among others.

5) Basic Principle No. 5

The selected measures should be ensured under a strong leadership and with adequate financial and human resources.

2 OBJECTIVES OF THE FIVE-YEAR ACTION PROGRAM

Based on the basic principles discussed in Chapter 1 of this Action Program and in the Master Plan volume, as well as analysis made on traffic situation in Vietnam in Volume 2 of this report, this chapter will present an outlook of the road traffic accident in Vietnam at present and in the coming years and outline a background to set up the objectives and targets of this 5-year Action Program for the period 2008-2012. To realize these objectives and targets, adequate sectoral action program development policies should be clarified.

2.1 Outlook of Road Traffic Accident in Vietnam

The most significant development on traffic safety in the whole country is the positive impact of Resolution No. 32/2007/NQ-CP dated 29 June 2007 issued by the Government.

1) Present Status: Decreasing but still High Rate of Traffic Accident

It is remarkable that with the implementation of Resolution No. 32/2007, the traffic safety situation is improved as exemplified by the decreasing rate in the number of traffic accident, particularly the remarkable decrease in the number of serious and extremely serious accidents. One of the most remarkable results is the very high percentage (almost 100%) of helmet use among motorcycle riders on the road. Even with no improvements on road infrastructure, traffic accidents in the last months of 2007 and first months of 2008 were reduced in all three aspects: total number of accidents, fatalities and injuries, as follows:

- In 2007 there were 14,218 road traffic accidents with 12,857 fatalities and 10,631 injuries. Compared with 2006 figures, there was a reduction in the number of accidents (100 accidents or 0.07%) and injuries (by 299 or 2.7%) but an increase in the number of fatalities (667 deaths or 5.5%).
- During the first seven months of 2008, compared with figures during the same period in 2007, there was a reduction in the number of traffic accidents (1,368 or -15.44%), fatalities (1,115 or -14.01%) and injuries *(1,957 or -28.53%).

2) Future Scenario: High Risks of Road Traffic Accidents and More Complex Traffic Safety Conditions

It is anticipated that in the coming years, the country's economic development will continue and the economic and the living standards of the people will still improve. This

will expectedly result also in the very high increase in motorization rate which, in turn, can lead to high risk of traffic accidents. In 2007, the number of newly registered vehicles was over 130,000 cars (an increase by 12.8%) and 3 million motorcycles (an increase by 16.4%). And if there are no effective measures immediately adopted, this annual growth rate of 12-16% will continue during the 5-year Action Program.

Another critical issue is the capacity of the infrastructure which is at present lagging in terms of meeting the travel demand. In addition, the percentage of land available for transport is very limited: only 6.4% in Hanoi and 6.7% in HCMC as compared with about 22-25% in major cities of other countries.

Adding to these problems in disparity of growth rates of vehicles and infrastructure, the traffic safety and order is also affected by other more complex factors that are related to the traffic participants. The level of traffic safety awareness in general of most road users seems very low and thus not ready to meet the requirements of a modern traffic society. In addition, in the coming years, the country's relatively lax policies on Residence Law and International Integration are also expected to contribute to the further increase in motorization in the country

2.2 Action Program Objectives and Targets

1) Objectives of the Action Program

- To deploy a system of basic measures to dominate effectively and sustainably the traffic accidents and as a first-step, to reduce these accidents.
- To form favorable conditions to reduce continuously the losses by traffic accidents, both in human and material resources, in the next 5-year planning period.
- To improve the knowledge, creating self-awareness of law implementation for road users, particularly for vehicle conductors.
- To enhance the management activities of transport mode quality.
- To strengthen the capacity for the legal enforcement forces of traffic safety order.
- To address the factors causing safety losses in transport infrastructures.
- To complete the activities of transport organization, system of legal documents of traffic safety order.
- To continue completing the mechanism, management organization for traffic safety from the central to local level.

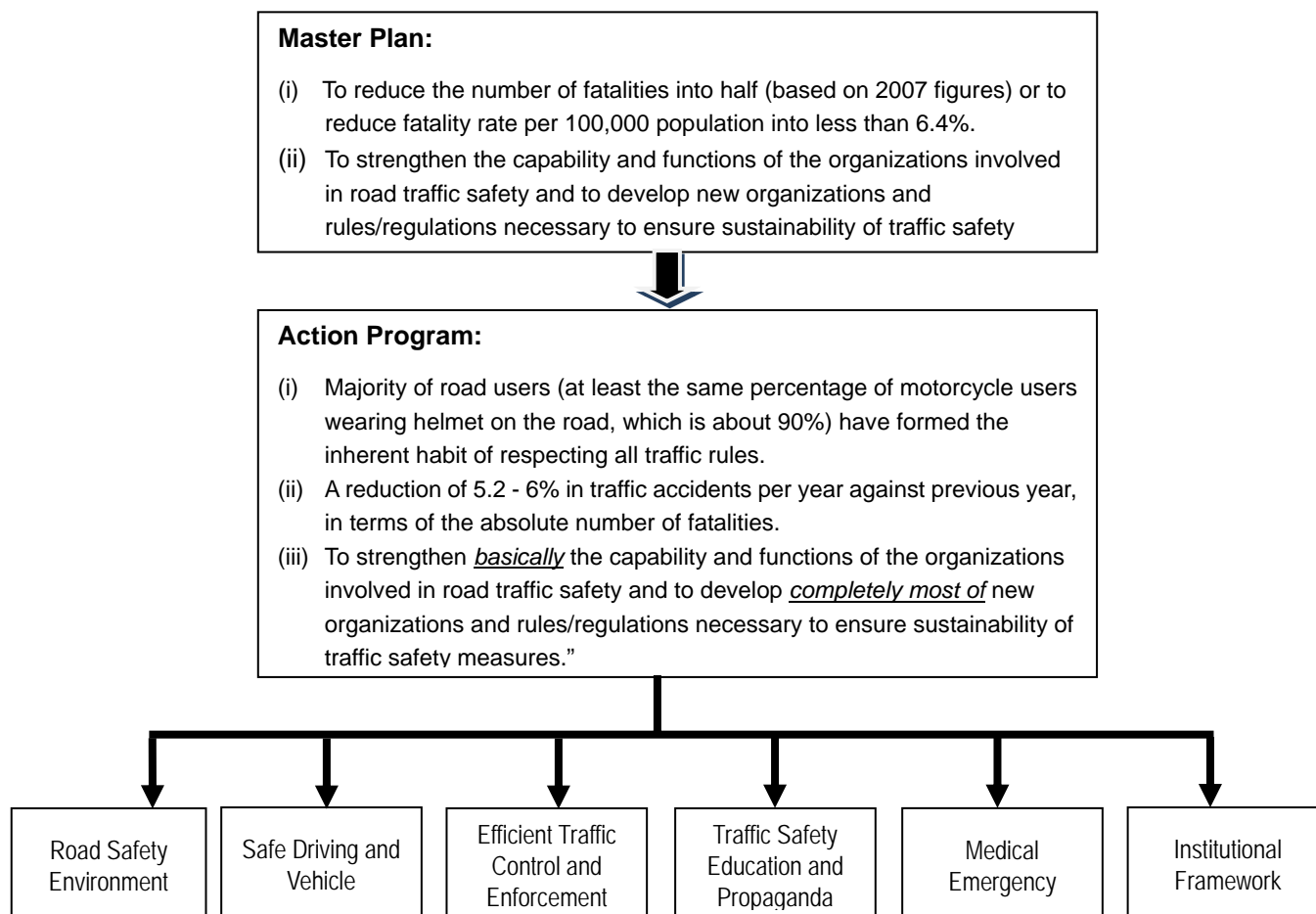
2) Targets

As indicated in Figure 2.2.1, concrete targets will be determined based on common targets of this Action Program for each sector. The sectoral targets are examined based on the research data in other countries. Engineering sector shall play a major role accounting for 60% of the expected impact while enforcement, education and emergency shall account for 20%, 10%, and 10% of expected impacts, respectively.

To reach these special targets, selected activities are proposed together with implementation and investment plan. While each Sector Action Program should meet

particular requirements of their respective sectors, each Sector Action Program should also be in coordination with the other sector plans to ensure a cohesive and comprehensive Traffic Safety Action Program.

Figure 2.2.1 Targets from Master Plan to Action Program and Sectoral Plans



Sectoral Targets		
Sector	Share of Impact (Target)	Priority Program (Focus Areas)
Engineering	60% (15%)	<ul style="list-style-type: none"> ■ 50% of the blacks spots on NH eliminated ■ Reduce 30% of M/C accident (fatality) on NH ■ Reduce 15% of Pedestrian and Bicycle on NH ■ Reduce 15% of Pedestrian and Bicycle in the urban areas
Enforcement	20% (5%)	<ul style="list-style-type: none"> ■ Strict enforcement for flagrant law violations ■ Modernization of enforcement equipment
Education	10% (2.5%)	<ul style="list-style-type: none"> ■ Traffic Culture development (community) ■ Improvement of school education institution
Emergency	10% (2.5%)	<ul style="list-style-type: none"> ■ Reduction by 2.5% in the No. of fatalities in hospital ■ Disseminate pre-hospital care and 115 system
License, Inspection	-	<ul style="list-style-type: none"> ■ Preparatory works for new license and vehicle registration system for both of M/C and Car
Institution	-	<ul style="list-style-type: none"> ■ NTSC administrative enhancement ■ Traffic Safety Foundation ■ Human resource development

Source: JICA Study Team

3 SECTORAL TRAFFIC SAFETY DEVELOPMENT ACTION PROGRAM

3.1 Road Transport Infrastructure Development Plan

1) Outline of the Engineering Action Program

(i) Target Indicator to Reduce Accident

(1) National Road

- Number of black spots in 2012 on national highway network will be reduced by 50% as compared to year 2007.
- Number of fatalities in 2012 caused by motorcycle accidents on national highway network will be reduced by 30% compared to year 2007.
- Number of accidents in 2012 involving pedestrians and bicycle users on national highways will be reduced by 15% as compared to year 2007.

(2) Urban Road

- Number of accidents in 2012 on urban roads will be reduced by 15% as compared to year 2007.

(ii) Outline of Contents of Action Program

Table 3.1.1 presents the outline of the 5-year action program in the road transport infrastructure development sector.

Table 3.1.1 Summary of Action Program for Road Infrastructure Development

Program	Program Components
1. Black Spot Improvement	<ol style="list-style-type: none"> 1) Establishment of practical criteria to identify black spot. 2) Conduct of capacity development program for black spot management under WB and JBIC Traffic Safety Project. 3) Formulation of trainer training framework for engineers of RRMU and PDOT
2. Traffic Safety Audit System Development	<ol style="list-style-type: none"> 1) Establishment of an executive guideline (Pre-F/S, F/S, D/D and operation stage) to coordinate with a technical assistance program under WB Traffic Safety Project. 2) Conduct of capacity development program on pilot traffic safety audit under WB Traffic Safety Project.
3. Traffic Safety Corridor Development	<ol style="list-style-type: none"> 1) Formulation of a prioritized process to implement traffic safety corridor restoration from aspects of accident severity, traffic condition and roadside condition. 2) Establishment of database system to back-up implementation. 3) Establishment of institutional/legal framework of enforcing illegal dwellers and public consultation system for smooth implementation. 4) Preparation of amendment / supplement of legal provision to accelerate prioritized section.
4. Highway Traffic Safety Facility Enhancement	<ol style="list-style-type: none"> 1) Implementation of physical infrastructure improvement project on national highway to include: <ul style="list-style-type: none"> - Intersection improvement in accordance with (to be specified) design standards. - Lane separation by vehicle type in accordance with (to be specified) design standards. - Upgrading of safety facility on railway crossing. - Strengthening of countermeasure for night-time accident on

Program	Program Components
	<p>high-traffic and high-risk sections.</p> <p>2) Establishment of practical and technical criteria to support the programs:</p> <ul style="list-style-type: none"> - Technical design standards to clarify level of intersection improvement; geometrical improvement, installation of signal system and grade-separation improvement, depending on traffic conditions. - Design criteria for provision of lane separation by vehicle type to be considered a traffic rule on lane separation in accordance with traffic conditions.
5. Vulnerable Road User Accident Prevention	<p>1) Implementation of physical infrastructure improvement project on national highway in cooperation with people at the local levels:</p> <ul style="list-style-type: none"> - Provision of pedestrian path and bicycle path at necessary road sections based on to be specified design criteria. - Installation of pedestrian crossing facility at necessary road sections based on to be specified design criteria. <p>2) Establishment of technical criteria to install or provide the above pedestrian/bicycle safety facility in accordance with traffic condition.</p> <p>3) Formulation of education program or campaign program to support the above infrastructure measures.</p>
6. Expressway Safety Development	<p>1) Establishment of responsible and supervising department in MOT.</p> <p>2) Establishment of traffic regulation/rule and operation rule of expressway.</p> <p>3) Formulation of a traffic operation/management standard and a technical standard of traffic safety facility/device by MOT.</p> <p>4) Establishment of traffic safety assurance framework on expressway project or operation with the use of traffic safety audit system.</p>
7. Road Work Traffic Safety Development	<p>1) Establishment of a road construction work traffic safety guideline to be utilized for traffic safety audit during construction stage.</p> <p>2) Implementation of a pilot performance-based maintenance project on selected section which has high risk of accident, and then establishing a performance standard/requirement for maintenance work, to realize proper maintenance system on major national highway.</p> <p>3) Installation of vehicle weight station to mitigate accident related to overloading vehicles.</p>
8. Traffic Safety Monitoring and Maintenance	<p>1) Establishment of a traffic safety benefits evaluation guideline to include damage loss circulation method.</p> <p>2) Formulation of traffic safety monitoring/evaluation framework after conduct of physical infrastructural measure.</p>
9. Urban Road and Urban Bypass Traffic Safety Development	<p>1) Improvement and upgrading of safety measures on intersection to include ensure safe pedestrian road crossing.</p> <p>2) Formulation of phasing manual and technical guideline for signal control system to strengthen capacity of traffic control by traffic management authority (traffic police) as well as road management authority (TUPWS/PDOT/VRA), aimed to upgrade signal control system toward line control and area-wide control.</p> <p>3) Establishment of trainer training system for capacity development on signal control.</p> <p>4) Promotion of the following road infrastructure improvements related to overtaking/changing lane accident:</p> <ul style="list-style-type: none"> - Installation of portable centre median facility on route or

Program	Program Components
	<p>section of high frequency for overtaking accident.</p> <ul style="list-style-type: none"> - Provision of bicycle path to mitigate accident risk due to mix traffic and implementation of a safety campaign. - Introduction of bus priority lane system on peak hour to mitigate accident risk due to mix traffic. - Development of urban planning and institutional framework to create parking space, in order to reduce on-street and sidewalk parking of motorcycles. <p>5) Conduct of urban bypass planning integrated with assurance of traffic safety corridor and traffic safety audit to introduce traffic impact assessment scheme.</p>
10. Human Resource Development	<p>1) Formulation of a technical guidebook for black spot treatment practice to support road management agency and design engineer.</p> <p>2) Formulation of a technical manual on traffic safety audit to support design works by the engineer and practice by auditor.</p>

Source: JICA Study Team

2) Implementation and Investment Plan

(i) Implementing Agencies

The implementing agencies responsible for each program on infrastructure development action program are summarized in Table 3.1.2.

Table 3.1.2 Responsible Agencies for Road Infrastructure Proposed Safety Measures

Program	Leading Agency	Concerned Agency
1. Black Spot Improvement Plan		
1) Implementation of Black Spot Improvement	VRA/RRMU	
2) Formulation of Cooperative Mechanism between Traffic Police and Road Management Authority	VRA	MOPS NTSC
3) Establishment of Practical Criteria for Black Spot Improvement (In collaboration with World Bank or JBIC Traffic Safety Project)	MOT	NTSC-TSPMU
4) Strengthening Capacity of Black Spot Management (In collaboration with World Bank or JBIC Traffic Safety Project)	VRA	NTSC-TSPMU
2. Traffic Safety Audit System Development Plan		
1) Revision of Traffic Safety Audit (TSA) Guideline (In collaboration with World Bank or JBIC Traffic Safety Project)	MOT	NTSC-TSPMU
2) Promotion of TSA System to Road Management Authority	MOT	VRA, Project Owner
3) TSA Pilot Project in WB VRSP-1	VRA	NTSC-TSPMU
3. Traffic Safety Corridor Development Plan		
1) Formulation of Nationwide Action Implementation Plan	VRA/RRMU	Local Authority
2) Formulation of Supporting Institutional Framework	VRA	Local Authority
3) Amendment of /Supplement to Legal Provision	MOT	
4. Highway Traffic Safety Facility Enhancement Plan		
1) Preparation of Design Standards/Guidelines for Traffic Safety	MOT	MOPS
2) Promotion of Smooth/Comfortable Road Safety		
- Intersection improvement	VRA/RMMU	

Program	Leading Agency	Concerned Agency
- Lane Separation by Vehicle Type Provision	VRA/RMMU	
- Railway crossing improvements	Railway Company	
- Installation of lighting system on national road	VRA/RMMU	
5. Vulnerable Road User Accident Prevention Plan		
1) Preparation of design standard for pedestrian/bicycle safety by MOT	MOT	
2) Conduct of survey to identify locations where pedestrian/bicycle path and crossing facilities should be provided/installed	VRA/RRMU	Local Authority
3) Formulation of implementation plan for road infrastructure improvement	VRA/RRMU	
4) Formulation of implementation plan for education and safety dissemination program	VRA/RRMU	Local Authority
5) Implementation of action program	VRA/RRMU	Local Authority
6. Expressway Safety Development Plan		
1) Establishment of traffic regulation/rule and operation rule of expressway.	MOT, MOPS	
2) Preparation of Expressway Traffic Operation/Management Standards and Technical Standard for Traffic Safety Facility/Device Installation	MOT	Project Owner
3) Execution of Traffic Safety Audit	MOT	Project Owner
7. Road Work Traffic Safety Development Plan		
1) Traffic Safety on Road Construction Work		
- Preparation of Road Work Safety Guideline	MOT	
- Implementation of nationwide traffic safety audit for road construction	MOT	Project Owner
2) Long-term Performance Based Maintenance System	VRA/RRMU	
3) Installation of Vehicle Weighing Station on Selected National Highway	VRA/RRMU	Traffic Police
8. Traffic Safety Monitoring/ Maintenance Plan		
1) Formulation of Traffic Safety Benefit Evaluation Guideline	MOT	
2) Implementation of Monitoring Evaluation	MOT	Project Owner
9. Urban Road and Urban Bypass Traffic Safety Development Plan		
1) Safety Measure on Intersection	TUPWS, Traffic Police	
2) Safety Measure for Overtaking/Changing Lane Accident	TUPWS	Local Authority
3) Urban Bypass Development	VRA	Local Authority
10. Human Resources Development Plan		
1) Development of Technical Guidebook of Black Spot Treatment	VRA/RRMU	MOT
2) Development of Technical Manual of Traffic Safety Audit	MOT	VRA

Source: JICA Study Team

(ii) Investment Budget Plan

Table 3.1.3 shows the cost of each program for the proposed road infrastructure safety development action program. It should be noted that the cost for the urban road and urban bypass traffic safety measure is not included since the investment cost must be clarified based on the urban development plan by the specific authorities. A summary of each investment cost is presented in Table 3.1.4.

Table 3.1.3 Overall Investment Plan by Program for Road Infrastructure Safety Action Program

Unit: (Million USD)

Program and Program Components	Year						Total Cost (2009-2013)	Note
	2008	2009	2010	2011	2012	2013		
1. Black Spot Improvement Plan								
(1) Implementing Black Spot Improvement on National Highway by VRA	8.0	8.0	7.0	6.0	5.0	4.0	30.0	Same as budget of year-2008
(2) Formulating Cooperative Mechanism between Traffic Police and Road Management Authority								
1) Establishing Traffic Accident Database System by WB VRSP-1		(1.7)	(1.8)	(1.8)			(5.3)	Project cost under WB VRSP-1
2) Promoting black spot improvement scheme between road management authority and traffic police				0.1	0.1		0.2	Administration cost only
(3) Establishing Practical Criteria for Black Spot improvement								
1) Review of black spot identification by current criteria	0.1						0.1	
2) Implementation of black spot improvement pilot project including training/capacity development for engineers								
- Black spot improvement (NH-1,51) under WB VRSP-1		(0.9)	(0.9)	(0.9)			(2.7)	Project cost under WB VRSP-1
- JBIC Traffic Safety Improvement Project (NH-3, 5, 10, 18)		(9.0)	(9.0)	(9.0)	(9.0)	(9.0)	(45.0)	Project cost under JBIC Project
3) Formulating practical criteria			0.1				0.1	
(4) Strengthening Capacity of Black Spot Management								
1) Developing human resource/techniques/expertise exchange system related to black spot improvement								
- Review and analysis past black spot practices	0.1	0.1					0.1	
- Training of VRA Headquarter engineers in JBIC/WB Project		0.2					0.2	Counterpart fund under WB VRSP-1
- Training to RRMU engineers by VRA Headquarter			0.8				0.8	USD 0.2 M / one RRMU office
2) Promotion of black spot improvement implementation to local governments								
- Training to PDOT engineers by VRA RRMU				0.8			0.8	USD 0.2 M / one RRMU office
- Provincial Road by PDOT				4.0	8.0	8.0	20.0	
Sub-total :	8.2	8.3	7.9	10.9	13.1	12.0	52.0	
2. Traffic Safety Audit System Development Plan								
(1) Revision of Traffic Safety Audit (TSA) Guideline								
1) Formulating executive process and evaluation criteria by MOT								
- Pre-F/S, F/S and D/D stage		0.1					0.1	
- Operation stage		0.1					0.1	
2) Issue revision of TSA guideline by MOT			0.1				0.1	
(2) Promotion of TSA System to Road Management Authority								
1) Preparing TSA implementation plan on national highway								

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Program and Program Components	Year						Total Cost (2009-2013)	Note
	2008	2009	2010	2011	2012	2013		
- Pre-F/S, F/S and D/D stage (by MOT)			0.1				0.1	
- Operation stage (by VRA)				0.1			0.1	
3) Executing implementation plan on national highway			0.4	0.4	0.4	0.4	1.6	USD20,000 / one project
(3) TSA Pilot Project in WB VRSP-1								
1) TSA Pilot Project		(0.4)	(0.3)				(0.7)	Project cost under WB VRSP-1
2) Capacity Development Program		0.1	0.1	0.1	0.1		0.4	Counterpart fund under WB VRSP-1
Sub-total :		0.3	0.7	0.6	0.5	0.4	2.5	
3. Traffic Safety Corridor Development Plan								
(1) Formulating Nationwide Action Implementation Plan								
1) Examining prioritization of implementation	0.1	0.1					0.1	
2) Developing database system		0.2					0.2	
3) Formulating implementation action program			0.1				0.1	
4) Conducting inventory survey for compensation and preparing budgetary form on priority section of national highway			5.0				5.0	USD1,000 x 5,000 km
5) Implementing compensation and clearing on selected priority section.			25.0	50.0	50.0	50.0	175.0	USD 0.1 million / km
(2) Formulation of Supporting Institutional Framework								
1) Formulating regal framework for Strengthening and strict enforcement of sanctions against returning illegal dwellers.		0.1					0.1	
2) Establishment of compensation system			0.2				0.2	
3) Establishment of public consultation system				0.1			0.1	
(3) Amendment/Supplement of Legal Provision								
1) Examining technical issue form monitoring of NH-1 pilot implementation and nationwide action program formulation.	0.1	0.1					0.1	
2) Examining compliance with related regal frame work of land use, urban development, industrial development, etc.		0.2					0.2	
3) Formulating draft amendment/supplement of legal provision and submitting legal authorities.			0.1				0.1	
Sub-total :	0.2	0.7	30.4	50.1	50.0	50.0	181.2	
4. Highway Traffic Safety Facility Enhancement Plan								
(1) Design Standards/Guidelines Preparation for Traffic Safety								
1) Examining issue and establishing working groups	0.1							
2) Making to solve and authorizing technical issue to relate traffic rule/management with MOPS		0.1					0.1	

Program and Program Components	Year						Total Cost (2009-2013)	Note
	2008	2009	2010	2011	2012	2013		
3) Preparing supplement / update / improve design standards/guidelines for traffic safety facility enhancement.		0.4					0.4	Employed local consultant
4) Integrating Design Standards/Guidelines and preparing instruction manual.			0.4				0.4	Employed local consultant
5) Preparing standard drawings for traffic safety measure.				0.2			0.2	Employed local consultant
6) Issue of booklet of "Traffic Safety Design Standard".				0.1			0.1	Editing and publish cost
(2) Promoting Smooth/Comfortable Road Safety								
1) Intersection improvement								
- Preparing supplemental design criteria of intersection design.	0.6	0.6					0.6	by Technical Assistance
- Conducting traffic volume survey at intersection on national highway (more than grade-III).		2.0					2.0	USD 500 / location
- Formulating implementation by RRMU.		1.2					1.2	Including Pre-F/S by RRMU office
- Formulating action program by VRA.			0.5				.5	Including F/S study
- Implementing action program.			18.0	36.0	36.0	36.0	126.0	USD 0.12 million / location
2) Separate Lane by Vehicle Type Provision								
- Preparing design guideline by MOT.	0.1							
- Discussing traffic rule on separate lane with MOPS and authorizing rule.		0.1					0.1	
- Formulating Implementation Plan by VRA		0.5					0.5	Including F/S study
- Survey, detailed design and construction.		25.0	50.0	50.0	50.0	50.0	225.0	USD 0.15 million / km
3) Railway crossing improvements								
- Closing and protecting by fence at unauthorized crossing	2.1	2.1					2.1	Guard fence : USD200 / m
- Installing automatic warning system at all locations.	1.5	3.1					3.1	USD7,500 / location
- Replace to automatic opening and shifting lifting barrier on national road.			3.6				3.6	USD30,000 / location
- Replace to automatic opening and shifting lifting barrier on provincial/district road.				3.8	3.8	3.8	11.4	USD20,000 / location
4) Installing lighting system on and on national road.								
- High traffic volume section		4.5	4.5				9.0	USD18,000 / km
- High risk accident section				2.1	2.1	2.1	6.3	USD43,000 / km (including guardrail)
Sub-total:	4.4	39.6	77.0	92.2	91.9	91.9	392.6	
5. Vulnerable Road User Accident Prevention Plan								
1) Preparing design standard for pedestrian/bicycle safety by MOT	0.2							Employed local consultant
2) Surveying to identify the location to provide pedestrian/bicycle path and crossing facility.		1.0					1.0	USD200 / km
3) Formulating implementation plan for road infrastructure improvement by VRA.		0.5					0.5	Including F/S study

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Program and Program Components	Year						Total Cost (2009-2013)	Note
	2008	2009	2010	2011	2012	2013		
4) Formulating implementation plan for education and safety dissemination program by Provincial Traffic Safety Committee.			0.3				0.3	Employed local consultant
5) Implementing action program. (Pedestrian/bicycle path : USD0.15 million / km, Pedestrian bridge : USD0.14 / location)			12.5	25.0	25.0	25.0	87.5	
Sub-total :	0.2	1.5	12.8	25.0	25.0	25.0	89.3	
6. Expressway Safety Development Plan								
1) Establishing Traffic regulation/rule and operation rule of expressway.		0.2					0.2	
2) Preparing "Expressway Traffic Operation/Management Standards" and "Technical Standard for Traffic Safety Facility/Device Installation" by MOT.		1.0	1.0				2.0	by Technical Assistance
3) Executing "Traffic Safety Audit".				0.3	0.3	0.3	0.9	USD30,000 / one project
Sub-total :	0.0	1.2	1.0	0.3	0.3	0.3	3.1	
7. Road Work Traffic Safety Development Plan								
(1) Traffic Safety on Road Construction Work								
1) Preparing Road Work Safety Guideline		0.3					0.3	by Technical Assistance
2) Conducting traffic safety audit of constriction stage under WB VTSP-1			(0.1)				(0.1)	Project cost under WB VRSP-1
3) Implementing nationwide traffic safety audit for road construction				0.1	0.2	0.2	0.5	USD5,000 / one project
(2) Long Term Performance Base Maintenance System								
1) Pilot Project of Performance Base Maintenance								
- Formulating Performance Standards/Requirements		0.2					0.2	by Technical Assistance
- Tendering			0.1				0.1	by Technical Assistance
- Implementing Pilot Project on National Highway			2.5	5.0			7.5	Maintenance cost : USD15,000 / km
2) Implementing nationwide					(50.0)	(50.0)	(100.0)	Maintenance cost : USD10,000 / km
(3) Installation of Vehicle Weigh Station on Selected National Highway.								
1) Installing vehicle weigh equipment on selected toll gate		6.0					6.0	USD 0.2 million / location
2) Performing overloading vehicle enforcement campaign		0.2	0.1				0.3	
Sub-total :	0.0	6.7	2.7	5.1	0.2	0.2	14.9	
8. Traffic Safety Monitoring/ Maintenance Plan								
1) Formulating Traffic Safety Benefit Evaluation Guideline								
- Review past accident record of damage loss and examining issues to prepare damage loss evaluation criteria.		0.2					0.2	Employed local consultant
- Executing additional data collect and supplemental survey.		0.3					0.3	by Technical Assistance
- Preparing draft damage loss evaluation criteria.			0.3				0.3	by Technical Assistance

Program and Program Components	Year						Total Cost (2009-2013)	Note
	2008	2009	2010	2011	2012	2013		
- Review evaluation parameter of damage loss by using accident database system by VRSP-1.			(0.1)				(0.1)	Project cost under WB VRSP-1
- Formulating Traffic Safety Benefit Evaluation Guideline				0.2			0.2	Employed local consultant
2) Implementing Monitoring Evaluation				0.4	0.4	0.4	1.0	USD10,000 / one project
Sub-total :	0.0	0.5	0.3	0.4	0.4	0.4	2.0	
9. Human Resource Development Plan								
(1) Development of Technical Guidebook on Black Spot Treatment								
1) Collecting data of black spot treatment practice.				0.1	0.1		0.2	
2) Review and analysis of black spot treatment practice.					0.3		0.3	by Technical Assistance
3) Preparing / editing / publishing guidebook.						0.2	0.2	by Technical Assistance
(2) Development of Technical Manual on Traffic Safety Audit								
1) Review practice of traffic safety audit					0.3		0.3	by Technical Assistance
2) Editing and publishing manual.						0.2	0.2	by Technical Assistance
Sub-total :	0.0	0.0	0.0	0.1	0.7	0.4	1.2	
Total Cost	13.0	58.8	132.8	184.7	182.1	180.6	739.0	

Source: JICA Study Team

Table 3.1.4 Overall Investment Plan for Road Transport Infrastructure Development Five-Year Action Program

Unit: (Million USD)

Program	Year						Total Cost (2009-2013)
	2008	2009	2010	2011	2012	2013	
1. Black Spot Improvement Plan	(8.2)	8.3	7.9	10.9	13.1	12.0	52.0
2. Traffic Safety Audit System Development Plan		0.3	0.7	0.6	0.5	0.4	2.5
3. Traffic Safety Corridor Development Plan	(0.2)	0.7	30.4	50.1	50.0	50.0	181.2
4. Highway Traffic Safety Facility Enhancement Plan	(4.4)	39.6	77.0	92.2	91.9	91.9	392.6
5. Vulnerable Road User Accident Prevention Plan	(0.2)	1.5	12.8	25.0	25.0	25.0	89.3
6. Expressway Safety Development Plan		1.2	1.0	0.3	0.3	0.3	3.1
7. Road Work Traffic Safety Development Plan		6.7	2.7	5.1	0.2	0.2	14.9
8. Traffic Safety Monitoring and Maintenance Plan		0.5	0.3	0.4	0.4	0.4	2.0
9. Human Resources Development Plan				0.1	0.7	0.4	1.2
Total :	(13.0)	58.8	132.8	184.7	182.1	180.6	739.0

Source: JICA Study Team

3) Urban Road and Urban Bypass Traffic Safety Development

It should be noted that formulating action program for specific cities is not the purpose of this Study. Since each city/province has its own unique traffic conditions, the Study Team recommends that the following guidelines for the formulation of traffic safety measures should be considered and incorporated in the urban development plan and road network development plan to be prepared by the local authorities.

(i) Safety Measure on Intersection**(1) Priority Plan of Intersection Safety Measurement**

The following measures should promote the reduction of traffic accidents at intersections:

- (a) Signalization as well as geometric lane arrangement on intersection based on traffic conditions will be promoted as the first priority.
- (b) Safety measure for pedestrian crossing; setting an adequate traffic light phasing for pedestrian crossing; installation of pedestrian waiting area in the center median; installation of pedestrian flyover/bridge or underpass, depending on traffic conditions.
- (c) Signal control system will be replaced with advanced system depending on the degree of traffic volume and congestion (i.e. point control system will be replaced with line control system, and line control system will be upgraded to area-wide system to be controlled from an integrated central operation center).

(2) Necessity of Upgrading Signal Control System**(3) Supplemental Program to Strengthen Signal Control**

- (a) Establishment of an Inter-agency organization between MOPS and MOT
- (b) Phasing Control Manual and Capacity Development System
- (c) Installation Standard and Mechanical Standard

(ii) Safety Measure for Overtaking/Lane Changing Accident

- (1) Installing Center-median Facility
- (2) Provision of Bicycle Path
- (3) Provision of Exclusive Bus Lane
- (4) Countermeasure for On-Street Parking

(iii) Urban Bypass Development

Roads planned for bypass construction are mostly the arterial national highway. Therefore, VRA and local urban development authorities are required the following:

- VRA will instruct the executing agency of bypass construction project that the bypass plan or design should be updated in accordance with Decision No.1856/2007/QD-TTg: Plan for Restoration of Traffic Safety Corridor.
- VRA will also instruct to the local urban development authorities that traffic impact assessment shall be conducted in connection with roadside land use development, particularly on the arrangement of crossroads to bypass and collector road/service road, and submit to VRA/MOT for approval.
- VRA will instruct the executing agency of bypass construction project that the feasibility study or detailed design should be reviewed and revised to comply with the safety measurements discussed in earlier subsections on Highway Traffic Safety Facility Enhancement Plan and Vulnerable Road User Accident Prevention Plan.
- VRA will instruct the executing agency of bypass that a traffic safety audit should be arranged in accordance with Traffic Safety Audit System Development Plan.

3.2 Safe Driving and Vehicle Safety Development Plan

The following are the proposed programs for implementation in the next 5 years:

1) Basic License Renewal System

Preparatory works should be completed by 2010 and implementation will start from 2011. Cost estimation is approximately USD21.9 million.

Table 3.2.1 Basic License Renewal System Implementation Schedule and Milestone

Program	Program Components	Target (Milestone)		2008-2010	2011-2012
		2010	2011		
Basic License Renewal System	System design & Textbook development	Setup of System Completion of textbook			
	Training for Instructors	Completion of Instructor Training			
	Law enactment	Issue of Decision			
	Implementation	Start of Implementation			

Source: JICA Study Team

2) License Renewal System Based on Traffic Violation

While it will be difficult to introduce this system within the 5-year action program period, preparatory works, particularly database development and establishment, may be started during this period, but target implementation is in the medium-term (by 2015). Cost estimation is approximately USD7.0 million.

Table 3.2.2 License Renewal System Based on Traffic Violation Implementation Schedule and Milestone

Program	Program Components	Target (Milestone)		2008-2010	2011-2012
		2010	2012		
Basic License Renewal System	Database development and establishment	Development and establishment of Database System			
	System design & Textbook development		Start system setup and textbook development		
	Coordination with Concerned Organization(s)		Establishment of committee		
	Training for Instructors		Start of training		
	Law enactment		Issue of Decision		

Source: JICA Study Team

3) Promotion of M/C Driver Licensing in the Rural Areas

The preparatory works and instructor training will be completed by 2010 and implementation will start from 2011. Cost estimation is approximately USD1.8 million.

Table 3.2.3 Promotion of M/C Driver Licensing in the Rural Areas Implementation Schedule and Milestone

Program	Program Components	Target (Milestone)		2008-2010	2011-2012
		2010	2012		
Promotion of M/C Driver Licensing in the Rural Areas	Preparatory works	Preparation of required equipment and materials			
	Training for Instructors	Completion of training for instructors			
	Implementation		Start of Implementation		

Source: JICA Study Team

4) Comprehensive Program for Driver Training and Testing

As shown in Table 3.2.4, all program components shall commence at the start of the 5-year action program period. Cost estimation is approximately USD4.3 million.

**Table 3.2.4 Comprehensive Program for Driver Training and Testing
Implementation Schedule and Milestone**

Program	Program Components	Target (Milestone)		2008-2010	2011-2012
		2010	2012		
Comprehensive Program for Driver Training and Testing	Preparatory works	Establishment of committee		█	
	Coordination with concerned organization(s)				
	Textbook development	Development of textbook for driver training			
	Development of Manual for professional drivers	Development of Manual for professional drivers			
	Development of an Instructor Education System		Training for instructor		█
	New content materials for training and testing of traction vehicle drivers	Textbook development for traction vehicle driver		█	█
	Adequate financial support to ensure sustainable operation	Reexamination of regulation		█	

Source: JICA Study Team

5) Safe Driving Management System for Transport Companies

The preparatory works will be completed by 2010 and implementation of experimental study shall commence in 2011. Target implementation of this program is immediately after this 5-year action program period. Cost estimation is approximately USD2.4 million.

**Table 3.2.5 Safe Driving Management System for Transport Companies
Implementation Schedule and Milestone**

Program	Program Components	Target (Milestone)		2008-2010	2011-2012
		2010	2012		
Safe Driving Management System for Transport Company	Preparatory works	Establishment of committee		█	
	Coordination with concerned organization(s)				
	Development of manual for transport companies	Development of driver instruction manual			
	Conduct of experimental study		Implementation		█
	Short course for driver manager		Establishment of short course		█
	Law enactment		Issue of Decision		█

Source: JICA Study Team

6) Vehicle Registration Renewal System

The preparatory works, system development, setting-up of the insurance system, and law enactment should be completed within the 5-year action program period. Implementation is set in the medium-term (from 2013). Cost estimation is approximately USD37.1 million.

Table 3.2.6 Vehicle Registration Renewal System Implementation Schedule and Milestone

Program	Program Components	Target (Milestone)		2008-2010	2011-2012					
		2010	2012							
Vehicle Registration Renewal System	Preparatory works	Establishment of committee		■	■	■				
	Coordination with concerned organization(s)				■	■	■			
	System Development		Establishment of System			■	■	■		
	Setting-up of the insurance system		Set up of insurance system			■	■	■		
	Law enactment		Issue of Decision							■

Source: JICA Study Team

7) Technical Inspection for M/C

The preparatory works, system development, law enactment, and guidelines for manufactures and dealers should be completed within the 5-year action program period. Implementation is set in the medium-term (from 2013). Cost estimation for this program is approximately USD37.9 million.

Table 3.2.7 Technical Inspection for M/C Implementation Schedule and Milestone

Program	Program Components	Target (Milestone)		2008-2010	2011-2012					
		2010	2012							
Technical Inspection for M/C	Preparatory works	Establishment of committee		■	■	■				
	Coordination with concerned organization(s)				■	■	■	■	■	■
	Development of System		System Devt Development of new standards			■	■	■	■	■
	Enactment of the new standard		Issue of Decision			■				
	Guidelines for manufacturers & dealers		Manual distribution & conduct of WS					■	■	
	Law enactment		Issue of Decision							■

Source: JICA Study Team

8) Strategies to Improve Vehicle Conditions for People with Disability

Assessment of subsidy system and vehicle standards will be completed within the 5-year action program period. This will be followed by the enactment of related laws and finally, implementation of the program after 2013. Cost estimation for this program

is approximately USD1.0 million.

Table 3.2.8 Strategies to Improve Vehicle Conditions for People with Disability Implementation Schedule and Milestone

Program	Program Components	Target (Milestone)		2008-2010	2011-2012
		2010	2012		
Strategies to Improve Vehicle Conditions for People with Disability	Organization of preparatory committee	Establishment of committee			
	Assessment of the subsidy system		Recommendation based on Assessment Reports		
	Assessment of vehicle standard				

Source: JICA Study Team

9) Human Resource Development for Driving Instructors

To benefit from preparation, assessment and development works conducted in other programs, preparatory works for this program shall start from 2011. Periodic personnel training will start in the medium term (after 2013). Cost estimation for this program is approximately USD0.5 million.

Table 3.2.9 Human Resource Development for Driving Instructions Implementation Schedule and Milestone

Program	Program Component	Target (Milestone)		2008-2010	2011-2012
		2010	2012		
Human Resource Devt	Preparatory works for system and content development		Development of system & content		

Source: JICA Study Team

10) Overall Implementation and Investment Plan

The required budget for the implementation of safe driving and vehicle safety development plan for the 5-year action program period is approximately USD114 million, as shown Table 3.2.10.

Significant amount will be required during the 3rd and 4th years of this action program period for the acquisition of equipment for the new programs such as the vehicle registration renewal system and technical inspection for M/C. Therefore, it is anticipated that the entire budgetary requirement may not be absorbed by the agency budget, and that loan from ODA agencies may be required.

Table 3.2.10 Overall Investment Plan for Transport Management Five-Year Action Program

	Unit: (Million USD)					
	2008	2009	2010	2011	2012	Total
Total Required Budget	-	12.5	51.6	46.4	3.3	113.9

Source: JICA Study Team

3.3 Efficient Traffic Control and Enforcement Development Plan

1) Outline of Enforcement Sector Action Program

(i) Implementation Strategies

Table 3.3.1 summarizes the proposed 5-year action program for the traffic enforcement sector, composed of 6 basic strategies, 7 implementation strategies and 23 implementation programs which are all urgently required to achieve the traffic safety Master Plan target in 2020.

Table 3.3.1 Proposed Traffic Control and Enforcement Five-Year Action Program

BASIC STRATEGY No.	STRATEGY	IMPLEMENTATION PROGRAM	PROGRAM CODE No.	MILESTONE		Core Agency	Joint Agencies
				2008-2010	2011-2012		
1	Traffic safety guidance for inexperienced and less-skilled road users	On-street traffic safety guidance and warning to motorcycle riders (e.g. proper lane-changing, turning, use of winker, etc.) and pedestrians (e.g. use of pedestrian lanes and overpass, etc.)	1-2-1			MOPS	MOET MOT
		On-site traffic safety guidance and warning on how to drive at black-spots and black-sections	1-2-2			MOPS	MOET MOT
		Traffic safety guidance and warning during rush hour	1-2-3			MOPS	MOET MOT
		Intensified traffic safety guidance and warning for young and beginner drivers	1-2-4			MOPS	MOET MOT
		Traffic safety guidance and warning on how to drive near trucks and buses (e.g. running parallel with, overtaking, etc.)	1-2-5			MOPS	MOET MOT
	Strengthening and intensifying traffic law enforcement to completely eradicate traffic violators	Traffic violations such as over speeding, running on red light, etc.	1-3-1			MOPS	MOET MOT
		Traffic violators at black-spots and sections	1-3-2			MOPS	MOET MOT
		Traffic violators on streets	1-3-3			MOPS	MOET MOT
		Traffic violators among young drivers	1-3-4			MOPS	MOET MOT
		Traffic violators among truck and bus drivers	1-3-5			MOPS	MOET MOT
2	Public relations on traffic safety guidance and enforcements, including current situation of traffic violations, implementation plan and implementation results	Examination and design of public relations on traffic safety guidance and enforcements	2-1-1			MOPS	MOET MOT
		Current situation of traffic violations and implementation plan of traffic guidance/enforcements	2-1-2			MOPS	MOET MOT
3	Coordination with related agencies on traffic safety countermeasures, exchange of views among all participants	Examination and design of public relations strategies on coordination mechanism with related agencies	3-1-1			MOPS	MOT MOET
		Presentation to, and exchange of views among the participants on the current situation of traffic safety guidance and enforcement activities	3-1-2			MOPS	MOT MOET
		Presentation to, and exchange of views among the participants on the current issues on traffic facilities and traffic management related to traffic safety guidance and enforcement	3-1-3			MOPS	MOT MOET
4	Recording and evaluation of traffic safety guidance and enforcement activities and activity planning based on the evaluation	Recording of traffic guidance and enforcement activities	4-1-1			MOPS	MOT
		Evaluation of the activities	4-1-2			MOPS	MOT
		Activity planning based on the evaluation	4-1-3			MOPS	MOT
5	Examination of human resource development policy on traffic safety guidance and enforcement and development of training system for sustainable human resource development	Examination of human resource development policy on traffic safety guidance and enforcement	5-1-1			MOPS	MOT MOET
		Beginners' training	5-1-2			MOPS	MOT MOET
6	Preparation and development of equipment for traffic safety guidance and enforcement	Procurement planning for required equipment on traffic safety guidance and enforcement	6-1-1			MOPS	MOT
		Implementation of procurement plan	6-1-2			MOPS	MOT
		Development of ITS camera system on several main NHs	6-1-4			MOPS	MOT

Source: JICA Study Team.

(ii) Required Budget

The required budget is divided broadly into two categories, one is the budget for traffic enforcements activities themselves and the other is that for procurement of

equipments.

2) Traffic Safety Guidance for Inexperienced and Less-skilled Road Users

Table 3.3.1 shows the implementation plan and estimated cost of the program. Total estimated budget required for this program is about USD10.6 million.

Table 3.3.2 Implementation Plan and Estimated Cost for Program Nos. 1-2-1 to 1-2-5

PROGRAM CODE No./ IMPLEMENTATION PROGRAM		CONTENTS	COST ITEMS	2008	2009	2010	2011	2012
1-2-1	On-street traffic safety guidance and warning to motorcycle riders (e.g. proper lane-changing, turning, use of winker, etc.) and pedestrians (e.g. use of pedestrian lanes and overpass, etc.)	Preparatory works	technical assistance (planning)				788	788
			teaching (combined with training)				788	788
			(cost of procurement of equipment excluded)	-	-	-	-	-
1-2-2	On-site traffic safety guidance and warning on how to drive at black-spots and black-sections	Implementation	technical assistance (formation, recording)				788	788
	teaching (combined with training)					788	788	
1-2-3	Traffic safety guidance during rush hour	Evaluation	technical assistance (formation)				700	700
1-2-4	Intensified traffic safety guidance and warning for young and beginner drivers		technical assistance (evaluation)				700	700
			workshop				30	30
1-2-5	Traffic safety guidance and warning on how to drive near trucks and buses (e.g. running parallel with, overtaking, etc.)	Review	technical assistance (review)					788
			workshop					30
		Training	trainers				160	160
			trainees				160	160
							4,902	5,718

Source: JICA Study Team.

3) Strengthening and Intensifying Traffic Law Enforcement to Completely Eradicate Deliberate Traffic Violations

Table 3.3.3 shows the implementation plan and estimated cost of the program. Total estimated budget required for this program is about USD15.6 million.

Table 3.3.3 Implementation Plan and Estimated Cost for Program Nos. 1-3-1 to 1-3-5

PROGRAM CODE No./ IMPLEMENTATION PROGRAM		CONTENTS	COST ITEMS	2008	2009	2010	2011	2012
1-3-1	Traffic violations such as over speeding, running on red light, etc.	Preparatory works	technical assistance (planning)	788	-	788	788	
			teaching (combined with training) (cost of procurement of equipment excluded)	788	-	788	788	
1-3-2	Traffic violators at black-spots and sections	Implementation	technical assistance (formation, recording)	788	-	788	-	788
1-3-3	Traffic violators on streets		teaching (combined with training)	788	-	788	-	788
1-3-4	Traffic violators among young drivers	Evaluation	technical assistance (evaluation)		700	-	700	700
1-3-5	Traffic violators among truck and bus drivers		workshop		30	-	30	30
		Review	technical assistance (review)		175	-	175	175
			workshop		30	-	30	30
		Training	trainers		160	160	160	160
			trainees		160	160	160	160
				3,150	1,955	3,470	3,530	3,530

Source: JICA Study Team.

4) Public Relations on Traffic Safety Guidance and Enforcement

Table 3.3.4 shows the implementation plan and estimated cost of the program. Total estimated budget required for this program is about USD12.2 million.

Table 3.3.4 Implementation Plan and Estimated Cost for Program Nos. 2-1-1 to 2-1-2

PROGRAM CODE No./ IMPLEMENTATION PROGRAM		CONTENTS	COST ITEMS	2008	2009	2010	2011	2012
2-1-1	Examination and design of public relations on traffic safety guidance and enforcements	Preparatory works	technical assistance	-	210	210	210	-
		Implementation	technical assistance			210	210	210
2-1-2	Current situation of traffic violations and implementation plan of traffic guidance/ enforcements	Evaluation	technical assistance			280	280	280
			workshop			96	96	96
		Review	technical assistance			-	280	280
			workshop			-	30	30
		Training	technical assistance (trainers)			2,100	2,100	2,100
			trainees			960	960	960
				0	210	3,856	4,166	3,956

Source: JICA Study Team.

5) Coordination among Related Agencies on Traffic Safety Countermeasures

Table 3.3.5 shows the implementation plan and estimated cost of the program. Total estimated budget required for this program is about USD13.2 million.

Table 3.3.5 Implementation Plan and Estimated Cost for Program Nos. 3-1-1 to 3-1-3

PROGRAM CODE No./ IMPLEMENTATION PROGRAM		CONTENTS	COST ITEMS	2008	2009	2010	2011	2012
3-1-1	Examination and design of public relations on traffic safety guidance and enforcements	Preparatory works	technical assistance	-	315	315	315	-
		Implementation	technical assistance			315	315	315
3-1-2	Presentation to, and exchange of views among the participants on the current situation of traffic safety guidance and enforcement activities	Evaluation	technical assistance workshop			-	315	315
		Review	technical assistance			420	420	420
workshop				30	30	30		
3-1-3	Presentation to, and exchange of views among the participants on the current issues on traffic facilities and traffic management related to traffic safety guidance and enforcement	Training	technical assistance (trainers)			2100	2100	2100
			trainees			960	960	960
				0	315	4,140	4,551	4,236

Source: JICA Study Team.

6) Recording and Evaluation of Traffic Safety Guidance and Enforcement Activities

Table 3.3.6 shows the implementation plan and estimated cost of the program. Total estimated budget required for this program is about USD17.7 million.

Table 3.3.6 Implementation Plan and Estimated Cost for Program Nos. 4-1-1 to 4-1-3

PROGRAM CODE No./ IMPLEMENTATION PROGRAM		CONTENTS	COST ITEMS	2008	2009	2010	2011	2012
4-1-1	Examination of how to efficiently record, file and evaluate traffic guidance and enforcement activities as basis for formulating an effective system	Preparatory works	technical assistance (formulation)	-	945	945	945	945
			(cost of procurement of equipment excluded)			-	-	-
4-1-2	Recording and filing of activity results on traffic safety guidance and enforcement	Implementation	technical assistance (data input)			420	420	420
			technical assistance (data output)			420	420	420
			technical assistance (analysis)			420	420	420
4-1-3	Evaluation of results of activities on traffic safety guidance and enforcement	Evaluation	technical assistance workshop			140	140	140
						192	192	192
		Training	Technical assistance (trainers)			2,100	2,100	2,100
			trainees			960	960	960
				0	945	5,597	5,597	5,597

Source: JICA Study Team.

7) Human Resource Development on Traffic Safety Guidance and Enforcement

Table 3.3.7 shows the implementation plan and estimated cost of the program. Total estimated budget required for this program is about USD13.5 million.

Table 3.3.7 Implementation Plan and Estimated Cost for Program Nos. 5-1-1 to 5-1-2

PROGRAM CODE No./ IMPLEMENTATION PROGRAM		CONTENTS	COST ITEMS	2008	2009	2010	2011	2012	
5-1-1	Examination of human resource development policy on traffic safety guidance and enforcement	Preparatory works	technical assistance (planning)	-	473	473	473	-	
			technical assistance (formulation)	-	473	473	473	-	
5-1-2	Development of training system for sustainable human resource development		technical assistance (specification) (cost of procurement of equipment excluded)		473	473	473	-	
				-	-	-	-		
			Pre-training	Technical assistance (trainers)		280	280	280	-
				technical assistance (evaluation)		140	140	140	-
		Training	technical assistance (beginners' training)		-	2,240	2,240	2,240	
			Technical assistance (evaluation)		-	140	140	140	
		Evaluation	technical assistance (review)				420	420	
				0	1,838	4,218	4,638	2,800	

Source: JICA Study Team.

8) Preparation and Development of Equipment for Traffic Safety Guidance and Enforcement

Table 3.3.8 shows the implementation plan and estimated cost of the program. Total estimated budget required for this program is about USD22.6 million.

Table 3.3.8 Implementation Plan and Estimated Cost for Program Nos. 6-1-1, 6-1-2, and 6-1-4

PROGRAM CODE No./ IMPLEMENTATION PROGRAM		CONTENTS	COST ITEMS	2008	2009	2010	2011	2012	
6-1-1	Procurement planning for required equipment on traffic safety guidance and enforcement	Preparatory works	technical assistance (planning)	-	315	315	-	-	
			technical assistance (survey)			420	420	-	
6-1-2	Implementation of procurement plan		technical assistance (analysis)		-	-	105	105	
6-1-4			Development of ITS camera system				105	105	
			Implementation	technical assistance (pre-planning)		-	210	-	210
				technical assistance (pre-evaluation)		-	30	-	30
		Training	technical assistance (trainers)		-	2,100	-	2,100	
			trainees		-	480	-	480	
		ITS camera			4,000	4,000	4,000	3,100	
				0	4,315	7,555	4,630	6,130	

Source: JICA Study Team.

9) Procurement Plan of Required Equipment for Traffic Police Activities

(i) Required Equipment

Table 3.3.9 shows the estimated number of required equipment.

**Table 3.3.9 Estimated Number and Cost of Equipment Required
for Traffic Police Activities**

Equipment	Total USD309 Mil.	
	Quantity	Estimated Cost (USD x 1,000)
patrol car	1,591	47,741.4
patrol motorcycle	3,183	22,279.3
light truck	1,591	55,698.3
vehicle fitout	6,366	50,924.2
vehicle maintenance	6,366	1,909.7
vehicle running costs for patrol cars and light trucks	3,183	19,096.6
vehicle running costs for patrol motorcycles	3,183	5,092.4
speed gun (all day type with picture)	1,591	38,193.1
speed sensor (day time type)	3,183	14,322.4
alcohol sensor (evidence type)	796	8,354.7
alcohol sensor (screening type)	1,591	1,591.4
vehicle scale	1,591	17,505.2
personal safety equipments	7,957	1,989.2
two-way radio (ICOM IC-F2721:25W)	1,591	6,365.5
two-way radio (ICOM VX-571UCAT:25W)	3,183	2,196.1
video recorder (Sony DSR-PD170P)	1,591	3,978.5
digital camera (Sony DSC-H1)	3,183	1,591.4
warning light (780-5S0-16)	7,957	2,227.9
computer (laptop)	1,591	2,625.8
computer (desktop for database)	2,907	4,360.5
computer (desktop for human resource development)	100	150.0
computer (including intranet; traffic police headquarter)	5	1,000.0
TOTAL		309,193.5

Source: JICA Study Team.

(ii) Procurement Plan

The equipment procurement plan was prepared based on the following assumptions:

- Two-thirds of total required budget for procurement of equipment allocated for the action program period, from 2008 to 2012.
- Therefore, one-third of total required budget for the procurement of equipment shall be allocated during the remaining master plan period, from 2013 to 2020.
- Budget allocation rate from 2008 to 2012 is 26%, 23%, 20%, 17%, and 14%, from 2008 to 2012, respectively. This is based on the premise that the sooner equipments are procured, the better it is for implementation of traffic enforcement activities.

Table 3.3.10 Proposed Equipments for Procurement

Equipment	Total USD206.1 Mil.	
	Quantity	Estimated Cost (USD x 1,000)
patrol car	1,061	31,827.6
patrol motorcycle	2,122	14,852.9
light truck	1,061	37,132.2
vehicle fitout	4,244	33,949.4
vehicle maintenance	4,244	1,273.1
vehicle running costs for patrol cars and light trucks	2,122	12,731.0
vehicle running costs for patrol motorcycles	2,122	3,394.9
speed gun (all day type with picture)	1,061	25,462.1
speed sensor (day time type)	2,122	9,548.3
alcohol sensor (evidence type)	530	5,569.8
alcohol sensor (screening type)	1,061	1,060.9
vehicle scale	1,061	11,670.1
personal safety equipments	5,305	1,326.2
two-way radio (ICOM IC-F2721:25W)	1,061	4,243.7
two-way radio (ICOM VX-571UCAT:25W)	2,122	1,464.1
video recorder (Sony DSR-PD170P)	1,061	2,652.3
digital camera (Sony DSC-H1)	2,122	1,060.9
warning light (780-5S0-16)	5,305	1,485.3
computer (laptop)	1,061	1,750.5
computer (desktop for database)	1,938	2,907.0
computer (desktop for human resource development)	67	100.0
computer (including intranet; traffic police headquarter)	3	666.7
TOTAL		206,129.0

Source: JICA Study Team.

10) Capability Improvement for Transport Inspectors

Table 3.3.11 shows the implementation plan and estimated cost of the program. Total estimated budget required for this program is about USD16.1 million.

Table 3.3.11 Implementation Plan and Estimated Cost for Transport Inspectors Program

PROGRAM CODE No./ IMPLEMENTATION PROGRAM		CONTENTS	COST ITEMS	2008	2009	2010	2011	2012
7	Capability Improvement for Transport Inspectors	Institutional and Organizational Frameworks	Separation of transport-specialized inspectors and administrative inspectors	-		25	252	102
			Harmonization of institutional issues	-	98	125	16	
		Coordination and complementation of regulations		57	97			
		Human resource	Supplementation of forces		225	225	225	225
		Training		465	750	750	500	
		Working conditions	Equipment		998	1,467	1,467	998
			Working space		1,002	2,501	1,995	1,509
					2,845	5,190	4,705	3,334
		TOTAL	(in USD1,000)					16,074

Source: JICA Study Team.

11) Overall Implementation and Investment Plan

The required budget is divided broadly into two categories, one is the budget for traffic enforcements activities and the other is that for procurement of equipments. Total required budget for implementation of efficient traffic control and enforcement development plan for the 5-year action program period is approximately USD311.5 million, as shown Table 3.3.12.

Table 3.3.12 Overall Implementation and Investment Plan for Traffic Control and Enforcement Development Five-Year Action Program

Total: 311.5 Mil. USD

BASIC STRATEGY No.	STRATEGY	IMPLEMENTATION PROGRAM	PROGRAM CODE No.	MILESTONE		Core Agency	Joint Agencies	Budget (Mil USD) (MOPS)
				2008-2010	2011-2012			
1	Traffic safety guidance for inexperienced and less-skilled road users	On-street traffic safety guidance and warning to motorcycle riders (e.g. proper lane-changing, turning, use of winker, etc.) and pedestrians (e.g. use of pedestrian lanes and overpass, etc.)	1-2-1			MOPS	MOET MOT	10.6
		On-site traffic safety guidance and warning on how to drive at black-spots and black-sections	1-2-2			MOPS	MOET MOT	
		Traffic safety guidance and warning during rush hour	1-2-3			MOPS	MOET MOT	
		Intensified traffic safety guidance and warning for young and beginner drivers	1-2-4			MOPS	MOET MOT	
		Traffic safety guidance and warning on how to drive near trucks and buses (e.g. running parallel with, overtaking, etc.)	1-2-5			MOPS	MOET MOT	
	Strengthening and intensifying traffic law enforcement to completely eradicate traffic violators	Traffic violations such as over speeding, running on red light, etc.	1-3-1			MOPS	MOET MOT	15.6
		Traffic violators at black-spots and sections	1-3-2			MOPS	MOET MOT	
		Traffic violators on streets	1-3-3			MOPS	MOET MOT	
		Traffic violators among young drivers	1-3-4			MOPS	MOET MOT	
		Traffic violators among truck and bus drivers	1-3-5			MOPS	MOET MOT	
2	Public relations on traffic safety guidance and enforcements, including current situation of traffic violations, implementation plan and implementation results	Examination and design of public relations on traffic safety guidance and enforcements	2-1-1			MOPS	MOET MOT	12.2
		Current situation of traffic violations and implementation plan of traffic guidance/enforcements	2-1-2			MOPS	MOET MOT	
3	Coordination with related agencies on traffic safety countermeasures, exchange of views among all participants	Examination and design of public relations strategies on coordination mechanism with related agencies	3-1-1			MOPS	MOT MOET	13.2
		Presentation to, and exchange of views among the participants on the current situation of traffic safety guidance and enforcement activities	3-1-2			MOPS	MOT MOET	
		Presentation to, and exchange of views among the participants on the current issues on traffic facilities and traffic management related to traffic safety guidance and enforcement	3-1-3			MOPS	MOT MOET	
4	Recording and evaluation of traffic safety guidance and enforcement activities and activity planning based on the evaluation	Recording of traffic guidance and enforcement activities	4-1-1			MOPS	MOT	17.7
		Evaluation of the activities	4-1-2			MOPS	MOT	
		Activity planning based on the evaluation	4-1-3			MOPS	MOT	
5	Examination of human resource development policy on traffic safety guidance and enforcement and development of training system for sustainable human resource development	Examination of human resource development policy on traffic safety guidance and enforcement	5-1-1			MOPS	MOT MOET	13.5
		Beginners' training	5-1-2			MOPS	MOT MOET	
6	Preparation and development of equipment for traffic safety guidance and enforcement	Procurement planning for required equipment on traffic safety guidance and enforcement	6-1-1			MOPS	MOT	22.6
		Implementation of procurement plan	6-1-2			MOPS	MOT	
		Development of ITS camera system on several main NHs	6-1-4			MOPS	MOT	
SUBTOTAL for PROGRAMS								105.4
PLUS: Equipment								206.1

Source: JICA Study Team.

3.4 Traffic Safety Education in School and Traffic Safety Culture Development Plan

1) Outline

Given the relatively low level of understanding and perception towards potential risk of accident occurrence among road users, this sector shall be focusing on the development of strategies for traffic safety education and traffic safety culture development to sustainably change road user behaviors, raise the level of traffic safety awareness, and correct high risk-taking road user behaviors.

The following are the major components of the action program for the education and safety culture development subsector:

- (i) Traffic safety education in the schools
- (ii) Traffic safety culture development (traffic safety education in community including traffic safety campaign and propaganda).

2) Traffic Safety Education in School Plan

(i) Curriculum Development to Supplement Traffic Safety Education Curriculum of DOET

(1) Background

Traffic safety education has been introduced into the school curriculum with some guiding documents for teachers and students in recent years. However, in the general education curriculum, traffic safety education activities are extra-curricular activities which are not yet fully developed and are still lacking guidelines on how to be integrated with other subjects. This also holds true in academic colleges where there is a lack of traffic safety education program component in any of the curricula available.

Hence, its goal is to develop and enrich traffic safety curriculum, teaching and learning materials, integrate extra-curricular periods into appropriate courses and establish a study unit in the academe to study traffic safety education methodologies.

(2) Program Components and Implementation Plan

For pre-school, primary, lower and upper secondary, increasing the time for extra-curricular activities and integrating traffic safety education into other subjects (geography, civics, Vietnamese language, etc.) will be the main focus of implementation. For training institutions (colleges, universities, vocational schools, etc.), focus will be on increasing traffic safety education content in the appropriate subjects and guiding the organizations' extra-curricular activities among the students. The academe will be encouraged to develop a study unit that will be responsible in formulating traffic safety education methodologies for all levels.

(3) Cost Estimation

The estimated cost for completing and supplementing the traffic safety education curriculum is approximately USD 0.027 million for the 5-year action program period as shown in Table 3.4.1.

Table 3.4.1 Cost Estimation for Curriculum Development to Supplement Traffic Safety Education Curriculum of DOET

(Unit: USD1,000)

No.	Program Component	Estimated Cost
1	Supplement the content of and complete the curriculum to include (a) curricular periods; (b) integrated periods, and (c) activities outside schools.	4
2	Provide guidance in the integration of traffic safety education into 9 subjects (3 levels) and extra-curricular activities.	6
3	Develop a curriculum where traffic safety education contents are integrated into the core subjects in universities, colleges and vocational levels and other extra-curricular activities.	5
4	Compile teaching guides and develop a program for “traffic safety education methodology” in academic institutions.	12
	Total	27

Source: JICA Study Team.

(ii) Launching of “Traffic Safety Culture in School”

(1) Background

This is the next step towards the campaign for preparing and developing the students to be traffic safety advocates in their respective families and communities as stipulated by MOET in its Directive 52/2007/CT-BGDDT dated 31 August 2007 (launched on 12 September 2007). The formulation of a “Traffic Safety Culture in School” is expected to help each educational institution to become an active nucleus in formulating traffic safety culture behaviors and solving public traffic safety problems.

From the schools, it is anticipated that this positive shift in both awareness and behavior will further be extended into the other stakeholders of the general population. Traffic safety slogans and proper traffic behaviors shall be introduced into the school activities so that teachers, staffs and students will hopefully adopt these teachings and behaviors and internalize them accordingly.

(2) Program Components and Implementation Plan

Together with the launching of the campaign for “Traffic Safety Culture in School”, it is necessary to design and organize activities in accordance with target groups (i.e. students per age level, teachers, school staffs, etc.). There should also be a mechanism to evaluate effectiveness of implementation.

(3) Cost Estimation

The estimated cost for launching of the campaign on traffic safety culture in schools is approximately USD 0.40 million for the 5-year action program period, as shown in Table 3.4.2.

Table 3.4.2 Cost Estimation for Launching of Campaign on Traffic Safety Culture in Schools

(Unit: USD1,000)

No	Program Component	Estimated Cost	Remarks
1	Develop the contents and requirements for "Traffic safety culture in school".	2	
2	Enjoin teachers, journalists and artists to use traffic safety culture concepts as content of their published materials for distribution in schools.	215	Conduct of program in 500 pilot schools
3	Educational institutions design and organize activities (e.g. forum, flag salutation activities, commitment signing, etc.) for traffic safety culture program.	150	Conduct of program in 500 pilot schools
4	Organize the launching ceremony for the movement of "Traffic safety culture in school" with nationwide coverage by various mass media.	28	Launching in 14 venues
		5	Nationwide coverage
	Total	400	

Source: JICA Study Team.

(iii) Training and Retraining Traffic Safety Education Teachers in Schools

(1) Background

Survey conducted on the training and retraining of traffic safety education showed that teachers who are in charge of traffic safety education did not originally receive appropriate training from their colleges, while the number of teachers who received training is very few and the quality of training received was very limited. In addition, most teachers do not have full understanding and awareness of traffic laws and traffic safety in general.

Thus, its goals are to develop teachers who are qualified and capable of organizing traffic safety education activities at schools, and to provide an adequate understanding of general issues to all teachers responsible for traffic safety education on traffic safety and urgent matters relating to local traffic safety where the school is located.

(2) Program Components and Implementation Plan

This program focuses on retraining for 3 target trainees: key teachers to be lecturers, teachers who directly teach traffic safety and all other teachers. The program components include the design of a study unit for "Traffic safety education methodology" in the teacher training curriculum; development of contents for "Traffic safety education methodology" at all academic training levels (intermediate, college and university) to train pre-school teachers, primary school teachers, lower- and upper-secondary school teachers so that traffic safety education process is uniformly implemented.

(3) Cost Estimation

The estimated cost for training and re-training of teachers in charge of traffic safety education is approximately USD3.45 million for the 5-year action program period, as shown in Table 3.4.3.

Table 3.4.3 Cost Estimation for Training and Re-training of Teachers

(Unit: USD1,000D)

No.	Program Components	Estimated Cost	Remarks
1	Develop 9 programs of "Traffic safety education methodology"	20	3 acad. training levels
2	Pilot teaching of the programs	30	15 programs
3	Compiling the retraining program for teachers regarding traffic safety and traffic safety education at all school levels	5	5 programs
4	Retraining courses for teachers		
4.1	Key teacher course for pre-school, universal	17	2-day course
4.2	Key teacher course for vocational, college, university	30	2-day course
4.3	Local courses: - For direct-teaching teachers; pre-school, primary, secondary) - For the remaining teachers (in 2012)	2,950 4,000	2-day course 1-day course
Total		3,452	

Source: JICA Study Team.

(iv) Development of Management and Evaluation Guidelines of Traffic Safety Education in Schools

(1) Background

At present, there is no set of criteria, guidelines or regulation for schools in Vietnam to follow in securing traffic safety and in assessing the impact of present system of traffic safety education based on students' behavior, attitude and skills. This is necessary for proper administration and control of education management.

The overall goals are to develop and set standards for evaluation and assessment of traffic safety education on different levels and scope and to make evaluation periodic; contributing in the raising of effectiveness of traffic safety education.

(2) Program Components and Implementation Plan

The program components consist of development of guidelines and criteria for schools to prevent traffic accidents (e.g. location of school, traffic arrangement for teachers, parents and students when going in and out of schools, etc.). The basic requirement is for schools to provide a safe traffic environment and meet the minimum standards set by the MOET. Proposed criteria should be feasible based on local conditions.

In addition, an evaluation study that shall develop criteria for evaluating traffic safety education on the learners and the criteria for evaluating the traffic safety education results of an educational institution shall be conducted.

(3) Cost Estimation

The estimated cost for the development of management and evaluation guidelines of traffic safety education in schools is estimated at approximately USD 0.24 million for the 5-year action program period, as shown in Table 3.4.4.

Table 3.4.4 Cost Estimation for Development of Management and Evaluation Guidelines of Traffic Safety Education in Schools

(Unit: USD1,000)

No	Program Components	Estimated Cost
1	Establish standards for schools on how to ensure traffic safety in the school premises.	4
2	Conduct of study on traffic safety education evaluation from other countries; develop methodology and mechanism of traffic safety education evaluation of learners.	5
3	Develop criteria for evaluating traffic safety education of educational institutions.	5
4	Pilot application of the developed criteria, methodology for evaluation, and organization of the evaluation process.	10
	Total	24

Source: JICA Study Team.

(v) Institutionalization and Development of Necessary Conditions to Ensure Sustainable Traffic Safety Education in Schools

(1) Background

Traffic safety education activities in schools have not been institutionalized and have not developed necessary facility and material prerequisites (academic environment, facilities, books, posters, etc.). Therefore, implementation of traffic safety education is not standardized and systematic and does not encourage full participation of other sectors outside the education system.

Hence, its goal is to institutionalize traffic safety education as an educational activity (and not just as a school organization) and to define the necessary and complete conditions to implement traffic safety education in schools.

(2) Program Components and Implementation Plan

The program components include formulation of necessary documents regulating the contents, methodology to organize traffic safety education in schools; environment standards, list of materials and facilities for traffic safety education so that it can match required national standards, with advanced and feasible perspective of educational methodology.

(3) Cost Estimation

The estimated cost for the institutionalization and development of necessary conditions for traffic safety in schools is estimated at approximately USD2.20 million for the 5-year action program period, as shown in Table 3.4.5.

Table 3.4.5 Cost Estimation for Institutionalization and Development of Necessary Conditions for Securing Traffic Safety in Schools

(Unit: USD1,000)

No	Cost Items	Estimated Cost	Remarks
1	Draft documents, workshops, issuing the documents on school traffic safety education	30	
2	Developing the list of full and minimum list of traffic safety education facilities	30	
3	Developing the model of standard materials and facilities at all school levels	40	Pilot application in 4 school levels and 4 models of materials and facilities
4	Supporting and providing traffic safety education materials for all school levels (2012 = 1/5)	2,100	Target completion of 20% by 2012
	Total	2,200	

Source: JICA Study Team

(vi) Launching of a Nationwide Media Campaign on “Traffic Safety for the Young Generation”

(1) Background

Recently, the traffic safety programs of Vietnam Television and Voice of Vietnam have largely contributed in increasing the level of awareness and improving the attitude of the people towards traffic safety. However, to significantly create a strong impact in the consciousness of the younger population, particularly that of the road users, it is necessary to launch a nationwide media campaign on traffic safety.

This aims to create a significant and positive shift in the awareness, attitude and behavior of the people when participating in traffic and handling traffic problems through a massive nationwide media campaign. In addition, it also aims to formulate, consolidate, and deliver concise, effective, and useful traffic safety messages which will hopefully be internalized by the people and guide them towards safe traffic participation.

(2) Program Components and Implementation Plan

The program components include the development of audio visual productions of traffic situations with relevant traffic safety messages that can positively influence young peoples’ attitude and behavior. These may be further replicated in print and radio and disseminated during peak viewership/listenership/readership periods. It will also be necessary to engage support of famous personalities/celebrities to draw more attention on the campaign.

(3) Cost Estimation

The estimated cost for launching the national media campaign is approximately USD 0.240 million for the 5-year action program period, as shown in Table 3.4.6.

Table 3.4.6 Cost Estimation for Launching the National Media Campaign

(Unit: USD1,000)

No.	Program Components	Estimated Cost	Remarks
1	Develop contents and requirements for the national media campaign.	3	
2	Identify and enjoin participation of artists in developing messages for dissemination in various media in support of the theme “Traffic safety for young generations”.	215	For distribution in 400 communes/ wards from the 5 pilot provinces and cities
3	Launch of the campaign in 5 provinces and cities and a full coverage broadcasted nationwide.	15	
4	Training after launch of the campaign.	7	(400 communes, 2 people/ commune, 50 people/course, 16 courses)
	Total	240	

Source: JICA Study Team

(vii) Introduction and Inclusion of Traffic Safety Content in the Ongoing Activities of the Mobile Traffic Safety Education and Practice Teams at the District Levels

(1) Background

Resolution 32/2007/NQ-CP dated 29 June 2007 considers traffic safety propaganda and dissemination as the most important measure during this period. Directive 07/2008/CT-BGTVT dated 30 May 2008 regarding the dissemination of traffic and transport law in the period of 2008-2012 also defines transport law dissemination as a measure of both short-term and long-term characteristics to build traffic safety education as a safety culture.

Hence, its goals are to consolidate, intensify the capacity of the mobile traffic safety education and practice teams under district-level cultural centers. In particular, it intends to enable the mobile traffic safety education and practice teams directly provide the people with basic information regarding traffic safety in understandable methods and forms and those which are also appropriate in their specific conditions and circumstance.

(2) Program Components and Implementation Plan

The program components include the development of special subjects on traffic safety for integration into the content of mobile traffic safety education and practice teams' activities. The practitioners/campaigners will be trained to apply interactive methodologies to encourage and increase participation of the people (through Q&A / forum, contests, etc.).

(3) Cost Estimation

The estimated cost for introduction of traffic safety education contents into the activities of the mobile traffic safety education and practice is approximately USD2.6 million for the 5-year action program period, as shown in Table 3.4.7.

Table 3.4.7 Cost Estimation for Introduction and Inclusion of Traffic Safety Contents in the Mobile Traffic Safety Education and Practice Teams at District Levels

(Unit: USD1,000)

No	Program Components	Estimated Cost	Remarks
1	Develop traffic safety contents for the mobile traffic safety education and practice team.	30	
2	Provide materials and facilities for the mobile traffic safety education and practice teams covering 500 districts (including visiting cars for remote and mountainous areas).	2,500	(USD50 worth of materials and facilities for each district; plus visiting cars for remote and mountainous areas, 500 districts).
3	Training mobile traffic safety education practitioners.	70	(2 people/district; 17 courses)
	Total	2,600	

Source: JICA Study Team

(viii) Raising Traffic Safety Education Program Effectiveness through the Mass Media at Central and Local Levels

(1) Background

Radio and television broadcasts have proven to be the most effective tool of communication that have significant effects on a wide range of audience in terms of its spatial coverage timeliness and effectiveness. However, at present, there is still a lack of regular and quality programs in both mediums in terms of content and appeal to the public, thus there is the need to improve quality of programs.

Therefore, the goal is to develop an information channel which is updated on a

daily basis to provide information on traffic safety programs as well as traffic situation throughout the country. Aside from television broadcast, this channel will also be broadcasted on the central radio and fed to local stations. In particular, interactive household, school-based and community-based programs on TV will be developed with the participation of traffic authorities/representatives, management agencies, and experts and design programs with scientific and educational contents which will be effective in promoting and disseminating traffic laws through television and radio programs.

(2) Program Components and Implementation Plan

In order to realize the above specific goals, traffic safety program content developers must be experts from the various sectors of Traffic Police, Culture, Radio, Television, representatives of general population who have capability to develop programs which will be interesting, popular and appealing to the general public. A specific broadcasting schedule for these programs must be set, with periodic replays of broadcast especially during prime time slots when viewership/ listenership is at its peak.

(3) Cost Estimation

The estimated cost for use of mass media to raise traffic safety education program effectiveness is approximately USD 0.29 million for the 5-year action program period, as shown in Table 3.4.8.

Table 3.4.8 Cost Estimation for Raising Traffic Safety Education Program Effectiveness through the Mass Media

(Unit: USD1,000)

No	Program Components	Estimated Cost	Remarks
1	Develop a system wherein different sectors will jointly work together in developing the content of traffic safety education programs.	5	Workshop, Consensus building on new system, etc.
2	Human resource development for editors and/or correspondents involved in the development of traffic safety education programs by providing training on interactive communication	5	Total of 264 trainees, 8 classes.
3	Pilot-broadcast of new traffic safety program developed under the new system with the use of new media (including radio and television stations)	19	
	Total	29	

Source: JICA Study Team

(ix) Establishment of a Network of Traffic Safety Education Professionals

(1) Background

Though communes and wards have been assigned to disseminate information about traffic safety, still, there have been no dedicated personnel responsible for the annual planning and implementation of the propaganda plan. This therefore requires the establishment of a community traffic safety education system.

Its goal is to propose the establishment of a network of traffic safety education professionals in the school and community which will have specific functions, duties and assigned tasks; conduct of pilot implementation as a step towards expanding the activities of these professionals.

(2) Program Components and Implementation Plan

This includes the establishment of professional network of traffic safety education practitioners in the schools and communities from existing human resources. The MOPS can be a good source of candidates for this task as members of traffic police force have professional knowledge about traffic laws and traffic safety.

(3) Cost Estimation

The estimated cost for establishment of a professional traffic safety education network is approximately USD2.13 million for the 5-year action program period, as shown in Table 3.4.9.

Table 3.4.9 Cost Estimation for the Establishment of a Network of Traffic Safety Education Professionals

(Unit: USD1,000)

No	Program Components	Estimated Cost	Remarks
1	Draft and promulgate the regulations on the activities of professional practitioners in school & community; content development for the program, community traffic safety education methodology	10	
2	Organize pilot implementation of the activities of professional traffic safety education practitioners in community.	20	6 communes
3	Expand the community traffic safety education	2,100	
	Total	2,130	

Source: JICA Study Team

(x) Retraining Officers of Government, Ministries, and Concerned Agencies on Traffic Safety Education Management and Administration

(1) Background

Since there is no community traffic safety education and practical system in Vietnam, there are no dedicated staffs who are appropriately trained and retrained in this field. Thus, leaders of concerned agencies and sectors have no common understanding and practical background to direct community traffic safety education. This requires the organization of retraining courses.

Thus, its goal is to provide the leaders of concerned agencies, organizations, some ministries, and sectors from central to local levels with basic information on traffic safety and the contents and methods to guide community traffic safety education.

(2) Program Components and Implementation Plan

Training contents for leaders of concerned organizations should be developed based on valuable materials from both domestic and foreign sources. In terms of developing professional skills in directing and managing community traffic safety education, exercises including cooperation among related agencies should be designed to direct this task.

(3) Cost Estimation

The estimated cost for retraining the leaders of concerned organizations is approximately USD1.048 million for the 5-year action program period (Table 3.4.10).

Table 3.4.10 Cost Estimation for the Establishment of Retraining Officers on Traffic Safety Educational Management and Administration

(Unit: USD1,000)

No.	Program Components	Estimated Cost	Remarks
1	Content compilation and development on how to manage community traffic safety education	8	
2	Organizing training courses		
	Courses for central-level officers	1	2 sessions, 30 participants/course
	Courses for provincial officers	15	2 sessions, 14 participants/province
	Courses for district officers	124	2 sessions, 13 participants/district
	Courses for commune officers	900	2 sessions, 6 participants/commune
	Total	1,048	

Source: JICA Study Team

3) Traffic Safety Culture Development Plan

(Traffic Safety Education in Community including campaign and propaganda)

The basic strategy is the introduction of the traffic safety culture through educational campaign and propaganda activities. The following subsection presents the action programs for implementation in the next 5 years with total estimated cost of USD36.85 million.

(i) Establishment of a Foundation or an Institution Responsible for Traffic Safety Culture

(1) Background

Introduction of traffic safety culture to the Vietnamese society requires a fundamental set of an independent credible institution to act as a focal point or foundation responsible for improving road traffic accident situation and changing road user behavior for better quality of life of Vietnamese citizens in a sustainable manner. This program is aimed at introducing new policies and practices on safety culture to Vietnamese communities.

The proposed establishment of a traffic safety culture institution or foundation requires cooperation, coordination and communication from not only one single agency but all agencies concerned to work together for development of new policies into practice for safer road use and better quality of life and welfare. Thus, the concerned agencies should be the Central Ideology and Culture Department, NTSC/MOT, MOET, MOPS, MOPH, VN Fatherland Front organization and its union members, universities, private sector such as automobile companies, insurance companies and other safety advocates with fundamental support from the community and general public.

(2) Program Components and Implementation Plan

The following are the program components:

- (a) Conduct of meetings and preparation of other necessary materials for pre- and post-foundation which can entail a development of institutional capabilities and human resources in traffic safety culture foundation through brainstorming sessions/meetings, traffic safety education and training and

publicity programs.

- (b) Development of reading materials such as minutes and conclusive summary for each brainstorming session/meeting in order to provide a consecutive plan on road traffic safety education using proactive communication and publicity campaign activities.
- (c) Development of collaboration and coordination mechanism among concerned agencies/stakeholders within central, regional, and local government, communities, nongovernmental organizations, and the private sector (through information gathering and dissemination).
- (d) Encouragement of community participation to work on traffic safety information dissemination that is critical to achieving positive and sustainable outcomes.
- (e) Development of key performance indicator (KPI) of the activity results via presentation, periodical printed materials such as reports, newsletter, bulletin, brochure or e-information on a dedicated website

(3) Cost Estimation

The cost for establishing a foundation or an institution responsible for traffic safety culture is estimated at approximately USD3.7 million for the 5-year action program period, as shown in Table 3.4.11.

Table 3.4.11 Cost Estimation for Establishment of a Traffic Safety Culture Foundation or Institution

Unit: (Million USD)

Program	Program Component	Cost Items	2008	2009	2010	2011	2012	Total	Remarks
Establishment of a foundation or an institution responsible for traffic safety culture	Preparation of meetings and other necessitate materials for pre-and-post foundation	Venue Allowance Materials Other	0	0.2	0.2	0.2	0.2	0.8	
	Development of reading materials such as minutes and conclusive summary.	Printed materials & distributions	0	0.2	0.2	0.2	0.2	0.8	Materials used for the meetings
	Development of collaboration and coordination as well as the supportive agencies / stakeholders.	Printed materials Information distribution	0	0.2	0.2	0.2	0.2	0.8	
	Encouragement of community participations for traffic safety information diffusion.	Printed materials Training Information distribution	0	0.2	0.2	0.2	0.2	0.8	Technical assistance may be required for training program
	Development of key performance indicator (KPI) of the activity results	Printed materials Information distribution	0	0.1275	0.1275	0.1275	0.1275	0.5	
Total			0	0.9275	0.9275	0.9275	0.9275	3.7	

Source: JICA Study Team.

(ii) Enhancement of Research and Development on Vietnam's Culture of Safety

(1) Background

Data collection and conduct of research and development on road traffic safety is a key significant element to derive the specific information and factual evidences that occurred in urban and rural communities in Vietnam.

Enhancement of research and development will enlighten the determination of policy making for better and safer road usage.

The objective of this program component is to identify level of knowledge & understanding on high accident-risk situation; at which situation they consider risky; opinion, perception and attitude on risk-taking behavior; and opinion on safety culture. The program targets the high risk groups: youths and adults, and other drivers: public transport drivers including bus, taxi, truck and government officials.

(2) Program Components and Implementation Plan

The following are the program components:

- (a) Preparation of meetings with agencies concerned to discuss a possibility for conducting research studies on traffic safety at local, regional and national levels.
- (b) Preparation of necessary materials for surveys.
- (c) Development of questionnaire and reading materials for surveys.
- (d) Development of collaboration and coordination within central, regional, and local government, communities, nongovernmental organizations for questionnaire surveys.
- (e) Site survey and analysis of the questionnaire and distribute the results to agencies concerned for further discussions and meetings.
- (f) Development of key performance indicator (KPI) of the activity results via presentation, periodical printed materials such as reports, newsletter, bulletin, brochure or e-information on the website

(3) Cost Estimation

The cost for conducting research and development on traffic safety culture is roughly estimated at approximately USD4.55 million for the 5-year action program period, as shown in Table 3.4.12.

(iii) Enhancement of Peoples' Knowledge and Consciousness on Traffic Safety

(1) Background

It is apparent that the level of traffic safety education among all Vietnamese is varied dependent upon geographic factor (urban or rural area) and level of income. Those who live in rural areas or on mountainous areas may have low literacy level and have less access to education and training program on traffic safety. The attitudinal belief and behavioral belief of indigenous communities can be an obstacle to make them understand the rules of the road and obey the traffic laws.

Table 3.4.12 Cost Estimation for Research and Development on Traffic Safety Culture

Unit: (Million USD)

Program	Program Component	Cost Items	2008	2009	2010	2011	2012	Total	Remarks
Enhancement of research and development on Vietnam's culture of safety	Preparation of meetings with agencies concerned to discuss a possibility for conducting research studies	Venue Materials Other	0	0.2025	0.2025	0.2025	0.2025	0.81	Materials use for meetings
	Preparation of necessitate materials for surveys.	Printed materials & Stationary Distributions	0	0.2025	0.2025	0.2025	0.2025	0.81	Materials use for surveys
	Development of questionnaire and reading materials for surveys	Printed materials Information distribution	0	0.2025	0.2025	0.2025	0.2025	0.81	Materials use for surveys
	Development of collaboration and coordination within central, regional, and local government, and communities, for questionnaire surveys.	Printed materials Meeting Information distribution & Communication	0	0.2025	0.2025	0.2025	0.2025	0.81	
	Site survey and Analysis of the questionnaire	Operating cost Printed materials Information distribution	0	0.27	0.27	0.27	0	0.81	Operating cost for survey and analysis
	Development of key performance indicator (KPI) of the activity results	Printed materials Information distribution	0	0.125	0.125	0.125	0.125	0.5	
	Total			0	1.205	1.205	1.205	0.935	4.55

Source: JICA Study Team.

Hence, a provision of education and training program on traffic safety is very important in generating a community understanding and acceptance toward road traffic accidents, risk-taking behavior, safety driving and safe road usage.

The program targets local community and university students, high risk groups: youths and adults, and other drivers: public transport drivers including bus, taxi, truck and government officials.

(2) Program Components and Implementation Plan

The following are the program components:

- (a) Development of traffic safety education pocket book (for both verbal and non-verbal communications so as to reach Vietnamese people at grass-root level) which focuses on need-to-know the rules of road basis.
- (b) Organizing of workshops and seminars nationwide for better understanding of traffic safety emphasizing on black spots and risk-taking behaviors and how to use road safely to avoid potential accidents with basic traffic rules and regulations.
- (c) Provision of effective information and materials on rules of road and safe driving manner through manuals, posters, leaflets, brochure and video-clip to be distributed nationwide.
- (d) Development of key performance indicator (KPI) of the activity results via presentation, periodical printed materials such as reports, newsletter,

bulletin, brochure or e-information on the website.

(3) Cost Estimation

The cost for preparation and implementation to enhance peoples' knowledge and consciousness on traffic safety culture is estimated at approximately USD8 million for the 5-year action program period, as shown in Table 3.4.13.

Table 3.4.13 Cost Estimation for Enhancement of Peoples' Knowledge and Consciousness on Traffic Safety Culture

Unit: (Million USD)

Program	Program Component	Cost Items	2008	2009	2010	2011	2012	Total	Remarks
Enhancement of peoples' knowledge and consciousness on traffic safety	Development of traffic safety education pocket books	Preparation of Pocket books Others	0	0.85	0.85	0	0	1.7	Materials to be used for the program/ activity
	Organizing workshop and seminar nationwide for better understanding of traffic safety	Workshop Training Technical assistance Printed materials & Stationary	0	0.875	0.875	0.875	0.875	3.5	Materials to be used for workshop and training
	Provision of effective information & materials on rules of road & safe driving manner	Media, Manuals, posters, leaflets, brochure and video-clip	0	0.575	0.575	0.575	0.575	2.3	Materials disseminated nationwide
	Development of key performance indicator (KPI) of the activity results	Printed materials Information distribution	0	0.125	0.125	0.125	0.125	0.5	Operating cost for survey and analysis
	Total		0	2.425	2.425	1.575	1.575	8.0	

Source: JICA Study Team.

(iv) Human Resource Development through Safety Culture Workshop Activities

(1) Background

In connection with safety education, development of a learning society through need-to-know on road traffic safety basis and driving skill training program and building the model of community learning center is direct to the development of community learning center network nationwide. Those who live in not only urban area but also rural areas or in mountainous areas can benefit in this development and hence generating an access to education and training program on traffic safety which can help reduce traffic accidents, injuries and fatalities.

This aims to generate capacity building for human resource development and to improve driving skills & quality of life and welfare. The program targets local community and university students, high risk groups: youths and adults, and other drivers: public transport drivers including bus, taxi, truck and government officials.

(2) Program Components and Implementation Plan

The following are the program components:

- (a) Development of traffic safety education manual and pocket book (for both verbal and non-verbal communications so as to reach Vietnamese people

at grass-root level) focuses on need-to-know the rules of road basis in cooperation with Police agency.

- (b) Organizing of seminar and workshop with training program for CEOs to grass-root levels nationwide for better understanding of traffic safety emphasizing on black spots and risk-taking behaviors and how to use road safely to avoid potential accidents with basic traffic rules and regulations and interaction with unexpected risk via a training program on riding simulator.
- (c) Provision of experts and instructors during the events.
- (d) Provision of effective information materials on traffic rules on the road and safe driving manner through manuals, posters, leaflets, brochure and video-clip to be distributed nationwide.
- (e) Development of key performance indicator (KPI) of the activity results via presentation, periodical printed materials such as reports, newsletter, bulletin, brochure or e-information on the website.

(3) Cost Estimation

The cost for the preparation and implementation on human resource development through safety culture workshop activities is estimated at approximately USD4.5 million for the 5-year action program period, as shown in Table 3.4.14.

Table 3.4.14 Cost Estimation for Human Resource Development through Safety Culture Workshop Activities

									Unit: (Million USD)
Program	Program Component	Cost Items	2008	2009	2010	2011	2012	Total	Remarks
Human resource development through safety culture workshop activities	Development of traffic safety education manual and pocket book	Preparation Manuals, Pocket books Others	0	0.25	0.25	0	0	0.5	Materials use for The program activity
	Organizing of workshop and seminar nationwide for better understanding of traffic safety	Workshop Training Technical assistance Printed materials & Stationary	0	0.5	0.5	0.5	0.5	2	Materials use for workshop and training
	Provision of experts and instructors, effective information & materials on rules of road & safe driving manner	Training, Operating cost, Media, posters, leaflets, brochure and video-clip	0	0.375	0.375	0.375	0.375	1.5	Materials use nationwide
	Development of key performance indicator (KPI) of the activity results	Printed materials Information distribution	0	0.125	0.125	0.125	0.125	0.5	Operating cost for survey and analysis
	Total		0	1.25	1.25	1	1	4.5	

Source: JICA Study Team.

(v) Enhancement of Community Involvement / Participation for Network Development

(1) Background

The enhancement of local community involvement or participation in traffic safety in Vietnam is still relatively low. Most of policy making and decision

making are from top-down and local community will exercise the policy only when there is a command from the top.

Networking development among local communities and local governments is the key to success in establishing traffic safety culture. When community peoples experience participating in road traffic safety education and publicity activities, they will learn to exchange new ideas and opinions with one another which is a preliminary stage for interactive communication development that leads to networking development.

This aims to enhance community participation/involvement for networking development in the Vietnamese communities. The program targets local communities, high risk groups: students, youths and adults, particularly those who live along the national highways, union groups under the Fatherland Front Union, central and local government officials, and the private sector.

(2) Program Components and Implementation Plan

The program component may include:

- (a) Preparation of seminar for gathering local communities with provision of educating community participants on traffic safety related problems with basic alternate solutions.
- (b) Preparation of workshop with training programs on how to make community safer in their living neighborhood areas.
- (c) Note that the training programs should be provided to grass-root levels from specific locations to regional and remote areas for better understanding of road use, ability to perceive potential risk of accident occurrence emphasizing on black spots and risk-taking behaviors and how to use road safely to avoid potential accidents with basic traffic rules and regulations and interaction with unexpected risk via a training program on riding simulator.
- (d) Distribution of traffic safety education manual and pocket book and other materials such as posters, leaflets, brochure and video-clip which focuses on need-to-know the rules of road basis.
- (e) Provision of experts and instructors during the events in cooperation with Police agency.
- (f) Development of key performance indicator (KPI) of the activity results via presentation, periodical printed materials such as reports, newsletter, bulletin, brochure or e-information on the website.

(3) Cost Estimation

The cost for preparation and implementation on enhancement of community involvement/participation for network development is estimated at approximately USD3.6 million for the 5-year action program period, as shown in Table 3.4.15.

Table 3.4.15 Cost Estimation of Enhancement of Community Involvement/ Participation for Network Development

Unit: (Million USD)

Program	Program Component	Cost Items	2008	2009	2010	2011	2012	Total	Remarks
Enhancement of community involvement/participation for network development	Preparation of seminar for gathering local participants to educate community participants on traffic safety related problems with basic alternate solutions.	Preparation and implementation cost Others	0	0.24	0.35	0.28	0	0.87	Costs that may occur for the event
	Organizing workshop with training programs on how to make community safer in their living neighborhood areas.	Workshop Training Technical assistance Printed materials & Stationary	0	0.125	0.31	0.31	0.125	0.87	Costs that may occur for the event. Materials used for workshop and training
	Provision of experts and instructors during the events in cooperation with Police agency.	Operating cost, Experts allowance	0	0.25	0.36	0.25	0	0.86	Operating cost for experts and some assistances
	Distribution of traffic safety education manual and pocket book and other materials	Manuals, Pocket books, posters, leaflets, brochure and video-clip	0	0.125	0.125	0.125	0.125	0.50	Materials used nationwide
	Development of key performance indicator (KPI) of the activity results	Printed materials Information distribution	0	0.125	0.125	0.125	0.125	0.50	Materials used nationwide
	Total			0	0.865	1.27	1.09	0.375	3.6

Source: JICA Study Team.

(vi) Consensus- and Trust-building in Community by Prioritizing Safe Community and Safer Road Use Issues

(1) Background

Road traffic accident situation in Vietnam is getting critical. More road traffic accidents have been significantly increased with different types of collision and casualty. However, very few of them were precisely identified.

Thus, it is important that the government should pay attention on building trust among Vietnamese communities upon safe road use in the communities by limiting number of accidents in the certain period of times.

Prioritization of safe community and safe road use issues should be the core heart of implementing road traffic safety action program so that the government can regain the trust and good cooperation from its communities.

Thus, its objective is to build trust among community residents on safe community and safe road use to entail public awareness on traffic safety and public understanding on the government efforts towards building the quality of life and welfare of Vietnamese community.

The program targets every target group including local communities, students, government officials, workers, union groups under the Fatherland Front Union, central and local government officials, and bus transport companies.

(2) Program Components and Implementation Plan

The program components include:

- (a) Conduct of study for development of traffic safety episodes.
 - (b) Preparation of manuscript and messages for the episodes and selection of media.
 - (c) Preparation of workshop with training programs for local volunteers on how to guide pedestrians across streets correctly and safely.
 - (d) Preparation of workshop with training programs for young motorcycle riders on how to ride safely with fun and enjoyably educated system to fit with their local community.
 - (e) Note that the training programs of both activities should be provided to grass-root levels from across types or use of roads at specific locations to regional and remote areas for better understanding of road use, develop ability to perceive potential risk of accident occurrence while using roads and avoid risk-taking behaviors and how to use road safely to avoid potential accidents with basic traffic rules and regulations and interaction with unexpected risk via a training program on riding simulator.
 - (f) Preparation of workshop with training programs for bus drivers on driving discipline and driving safely with fun and enjoyable educated system to fit with their driving environment and to serve their community effectively.
 - (g) Distribution of traffic safety education manual and pocket book and other materials such as posters, leaflets, brochure and video-clip which focuses on need-to-know the rules of road basis.
 - (h) Provision of experts and instructors during the events in cooperation with Police agency.
 - (i) Development of key performance indicator (KPI) of the activity results via presentation, periodical printed materials such as reports, newsletter, bulletin, brochure or e-information on the website.
- (3) Cost Estimation

The cost for preparation and implementation of program for trust-building in community by prioritizing safe community and safer road use issues is estimated at approximately USD4.5 million for the 5-year action program period, as shown in Table 3.4.16.

(vii) Development/Improvement of Traffic Safety Standards through Information Dissemination and Communication

(1) Background

In order to make Vietnamese people understand which level considers a safety standard requires massive information distribution and communication to reach to every target group. The materials provided for traffic safety education in schools and communities are quite obsolete and inadequate and lack of consistency which is in contrast with the rapid growth of motorization and traffic congestion and its adverse effect of traffic accidents.

Table 3.4.16 Cost Estimation of Program on Trust-building in Community by Prioritizing Safe Community and Safer Road Use Issues

Unit: (Million USD)

Program	Program Component	Cost Items	2008	2009	2010	2011	2012	Total	Remarks
Trust-building in community by prioritizing safe community and safer road use issues	Conduct of study for development of traffic safety episodes. Preparation of manuscript and messages for the episodes and selection of media.	Preparation and implementation cost Printed materials Media cost	0	0.3	0.8	0	0	1.1	Costs that may occur for the event
	Workshop with training programs for local volunteers on how to guide pedestrians across streets correctly and safely.	Workshop Training Technical assistance Printed materials & Stationary	0	0	0.9	0	0	0.9	Costs that may occur for the event Materials use for workshop and training
	Workshop with training programs for young motorcycle riders on how to ride safely with fun and enjoyably educated system to fit with their local community.	Workshop Operating cost, Technical assistance Printed materials & Stationary	0	0	0.4	0.6	0	1	Operating cost for experts and some assistances
	Workshop with training programs for bus drivers on driving discipline and driving safely with fun and enjoyably educated system to fit with their driving environment and to serve their community effectively.	Workshop Operating cost, Technical assistance Consultation fees, Manuals, Pocket books, posters, leaflets, brochure and video-clip	0	0	0.1	0.45	0.45	1	Costs that may occur for the event Materials use for workshop and training
	Provide experts and instructors during the events in cooperation with Police agency		Operating cost for experts and some assistances						
	Distribute traffic safety education manual and pocket book and other materials								
	Development of key performance indicator (KPI) of the activity results	Printed materials Information distribution	0	0.125	0.125	0.125	0.125	0.5	Materials use nationwide
Total			0	0.425	2.325	1.175	0.575	4.5	

Source: JICA Study Team.

Hence, its objective is to improve safety standard in community for the quality of life and welfare of Vietnamese citizens targeting local communities, students, government officials, workers, union groups under the Fatherland Front Union, and central and local government officials

(2) Program Components and Implementation Plan

The program components are the following:

- (a) A small booth or small office for providing toll-free hotline on traffic information and road traffic accident situation on voluntarily basis.
- (b) A radio station that can spare 5 to 10 minutes interval voluntarily for reporting and receiving incoming calls for real time traffic information and traffic accidents situation on voluntarily basis.

- (c) Public relations campaign and propaganda focus on “community and campus tours to communicate about the changes” of non-motorization to motorization which affects daily traveling and community lifestyle and how to deal with these changes utilizing community learning center and university campus in each region as a location tool for communication.
- (d) Launch essay competition, slogan competition and drawing competition projects to communicate about road traffic accidents and safe community problems with alternative countermeasures. These activities can be done with school students, university students and local public in cooperation with local media such as television, newspapers, radio, megaphone, internet and leaflet.
- (e) Provision of complaint call center and comment box at local government office or at public facilities like community learning center, central railway station, bus terminal, post office, school, university.
- (f) Development of key performance indicator (KPI) of the activity results via presentation, periodical printed materials such as reports, newsletter, bulletin, brochure or e-information on the website.

(3) Cost Estimation

The cost for preparation and implementation of development/improvement of traffic safety standards through information dissemination and communication is estimated at approximately USD4.5 million for the 5-year action program period, as shown in Table 3.4.17.

(viii) Development and Increasing Level of Collaboration and Responsibility for Action among all Stakeholders

(1) Background

Collaborations and coordination among all agencies concerned is a key element to success in coping with traffic safety problems in urban and rural communities and organizations in Vietnam. However, the level of cooperation among key actors in organizations in charge is still poor and slow. Some sections have overlapping works and responsibilities over the other.

Thus, it is important to develop traffic safety culture activities to increase the opportunities to tune up cooperation and coordination, particularly to generate proactive communication among central and local governments who are policy makers with all stakeholders concerned from private agencies who are practitioners including automobile companies, insurance companies, IT firms for social corporate responsibility and public practitioners such as mass media, schools, universities and local communities together with NPOs, NGOs and the union members of the fatherland front for turning policy into practice in their organizations and daily lifestyle.

This aims to promote collaboration and share responsibility among stakeholders in developing safety culture in organizations and communities for improving traffic safety and the quality of life and social welfare of Vietnamese citizens.

Table 3.4.17 Cost Estimation of Development/Improvement of Traffic Safety Standards through Information Dissemination and Communication

Unit: (Million USD)

Program	Program Component	Cost Items	2008	2009	2010	2011	2012	Total	Remarks
Development/ improvement of traffic safety standards through information dissemination and communication	A small booth or small office for providing toll-free hotline on traffic information and road traffic accident situation on voluntarily basis.	Operating cost Staff Telephone line	0	0	0.3	0.5	0.2	1	Costs that may occur for the set up
	A radio station that can spare 5 to 10 minutes interval voluntarily for reporting and receiving incoming calls for real time traffic information and traffic accidents on voluntarily basis.	Operating cost Staff for preparing script Telephone line Stationary Printed materials	0	0	0	0.55	0.45	1	Costs that may occur for the set up Materials use for operation
	Public relations campaign and propaganda focus on "community and campus tours to communicate about the changes" utilizing community learning center and university campus	Operating cost Technical assistance Stationary Printed materials Traffic safety booklet, leaflet, sticker	0	0	0	0.4	0.4	0.8	Operating cost for experts and some assistances
	Launch essay competition, slogan competition and drawing competition projects to communicate about road traffic accidents and safe community problems with alternative countermeasures.	Implementation plan Media such as television, newspapers, radio, megaphone, internet and leaflet.							Costs that may occur for the event
	Provide experts and instructors during the events in cooperation with Police agency. Distribute printed materials, video clip	Experts and instructors during the events in cooperation with Police agency. Distribute printed materials, video clip	0	0	0.2	0.6	0.4	1.2	Materials use for operation Operating cost for experts and some assistances
	Provision of complaint call center and comment box at local government office or at public facilities	Comment box Telephone line							
	Development of key performance indicator (KPI) of the activity results	Printed materials Information distribution	0	0.125	0.125	0.125	0.125	0.5	Materials use nationwide
Total			0	0.125	0.625	2.175	1.575	4.5	

Source: JICA Study Team.

(2) Program Components and Implementation Plan

The program components include:

- (a) Provision of "family rally for driving safely activity" starts from parading on major highway with demonstrating risk-taking behavior and safety driving and selects the national highway route where frequent accidents occur so as to raise traffic safety awareness among general public and community peoples who live along the selected national highway in cooperation with MOPS, MOT and private sector.
- (b) Preparation of materials and experts (either local or foreign expert from Japan) for lecturing and assisting the organizers of "you are the best driver workshop" in various public transport organizations and invite private sector

such as automobile firms to join the session as external expert for giving the driving instructions on smart and safe driving with maintaining morality.

- (c) Provision and preparation of “Safety Culture Fair/Exposition” together with selecting the event venue, inviting all stakeholders in public and private sectors, public relations and publicity campaigns using proactive communication channel through effective media such as TV, radio, billboard, banner, pamphlet, sticker, internet so that community peoples as spectators/audiences can participate and share the idea of safety is everyone concerned and responsive.
- (d) Provision and preparation of “Traffic Safety Forum” together with inviting the government agency, academic, domestic and foreign experts to intensively talk on development of safety culture in road traffic issue with providing a “student chapter for poster session and traffic safety problem and solution debate” in cooperation and coordination with universities and media.
- (e) Provision and distribution of printed materials related to the above events.
- (f) Publicity on the above events prior to it ignition at least 3 to 6 months earlier so that every agency concerned can have ample time for preparation.
- (g) Provision of all available information and a smooth and convenience work with media and union member of the Fatherland front union to ensure that all intended traffic safety messages get across all target groups in local, regional and national level.
- (h) Development of key performance indicator (KPI) of the activity results via presentation, periodical printed materials such as reports, newsletter, bulletin, brochure or e-information on the website.

(3) Cost Estimation

The cost for preparation and implementation on development and increasing the level of collaboration and responsibility for action among all stakeholders is estimated at approximately USD3.5 million for the 5-year action program period, as shown in Table 3.4.18.

(ix) Development of System for Monitoring and Reporting Progress of all Planned Actions and Evaluation Results

In this 5-year action program, the development of monitoring and reporting of progress of all planned actions and evaluation results (Key Performance Indicator VS Key Success Indicator) is proposed and is a component of each proposed program for a systematic documentation process.

The cost for developing a monitoring, evaluating and reporting system is estimated at approximately USD 4 million which is already included in the implementation programs and activities from the previously discussed programs throughout the 5-year action program. Establishing performance indicators or the use of performance indicators makes it possible to target actions in key areas systematically and to monitor implementation whether it succeeds or fails.

Table 3.4.18 Cost Estimation of Development and Increasing the Level of Collaboration and Responsibility for Action Among all Stakeholders

Unit: (Million USD)

Program	Program Component	Cost Items	2008	2009	2010	2011	2012	Total	Remarks
Development and increasing the level of collaboration and responsibility for action among all stakeholders	"family rally for driving safely activity" through parading on major highway, demonstrating risk-taking behavior and safety driving and selects the national highway route where frequent accidents occur	Implementation cost Operating cost Assisting Staff PR campaign	0	0	0.225	0.425	0	0.65	Costs that may occur for the event The event may gain sponsorship from private sector
	Preparation of materials and experts (either local or foreign expert from Japan) for lecturing and assisting the organizers of "you are the best driver workshop"	Operating cost of workshop Staff for preparing materials Stationary Printed materials	0	0	0	0.65	0	0.65	Operating cost for experts Costs that may occur for the workshop Materials use for operation
	"Safety Culture Fair/Exposition" with selecting the event venue, inviting all stakeholders in public and private sectors, PR and publicity campaigns using proactive communication & media	Operating cost Technical assistance Stationary PR, Printed materials Traffic safety booklet, leaflet, sticker	0	0	0	0.225	0.725	0.95	Operating cost for the event and some assistances Printed material The event may also gain sponsorship from private sector
	"Traffic Safety Forum" on development of safety culture in road traffic issue with providing a "student chapter for poster session and traffic safety problem and solution debate"	Implementation plan Technical assistance, Experts and instructors during the events in cooperation with Police agency. Distribute printed materials, video clip	0	0	0	0.225	0.525	0.75	Costs that may occur for the event Materials use for operation
	Provide experts and instructors during the events in cooperation with Police agency. Distribute printed materials, video clip	Media such as television, newspapers, radio, megaphone, internet and leaflet.							Operating cost for experts and some assistances
	Provide all available information and a smooth and convenience work with media and union member of the Fatherland front union								The event may also gain sponsorship from private sector
	Development of key performance indicator (KPI) of the activity results	Printed materials Information distribution	0	0	0.166	0.166	0.168	0.5	Materials use nationwide
Total			0	0	0.391	1.691	1.418	3.5	

Source: JICA Study Team

4) Summary and Recommendations on the Overall Implementation Strategy of Traffic Safety Education and Traffic Safety Culture Development Programs

The simultaneous implementation of traffic safety education program with traffic safety culture development program will entail a symbolic significance in the Government's attempt to revolutionize and hopefully sustain the positive changes in the Vietnamese peoples' road user behaviors.

In doing so, a significant amount of funds, time and succession of events are essentially required. The estimated costs for traffic safety education and traffic safety culture development programs, in some cases, may not be able to cover the overall proposed

activities as some of them may require consultation and technical assistances from overseas development agencies. Thus, obtaining funding support from the private sector or ODA would extremely help in alleviating burden on Government in financing the proposed traffic safety programs.

Furthermore, a commitment at all levels (local, regional, and national levels) to improve road safety will call for coordinated action that is focused on a common goal. Joint action is warranted to deal with common road safety issues, to raise greater awareness and to implement the most effective measures at the different levels.

In particular, programs to enhance traffic safety through school- and community-based activities (e.g. safe community, pedestrian safety, smart and decent driving, wearing of crash helmet, driving with proper license, no to drug- and drunk-driving, etc.) will provide a good illustration of the interdependence of different road safety measures and stakeholders and the need for interaction at all levels of government, whether local, regional or national, as well as between public and private sectors, to ensure effective protection of students and community peoples' life.

To address road traffic accidents, particularly motorcycle-related accidents, an integrated approach must be implemented which involves the simultaneous conduct of study on road users and motorcycle riders' attitude and riding behavior in parallel with other technical improvements. In doing so, the need to set up a traffic safety culture institution or foundation will be more than justified.

Information dissemination on traffic safety-related concepts and data is as equally important as the proposed traffic safety programs and activities. Therefore adequate emphasis should be provided on disseminating information on traffic rules and regulations; proper traffic behavior; cause and effect of reckless driving, not wearing helmet, drunk-driving, etc. These information may be disseminated in the form of pamphlets, pocket books, reflective stickers, and audio visual presentations which may be made widely available in automobile dealerships, city district, book stores, local libraries, schools and universities free of charge. Also, effective use of the media such as television, newspapers, radio, public address system, and the internet as communication tools/mechanisms for traffic safety culture, education and publicity could significantly heighten traffic safety knowledge and awareness, which can hopefully translate to desired safe traffic behavior.

Finally, conduct of monitoring and evaluation with development of key performance indicators (KPI) and key success indicators (KSI) before and after implementation of the activities would make it possible to systematically target key areas and monitor the level of effectiveness of implementation.

5) Overall Implementation and Investment Plan

The required budget for the implementation of the traffic safety education and propaganda development plan that includes the development of a traffic safety culture for the 5-year action program period is approximately USD49 million, as shown Table 3.4.19. It is anticipated that the entire budgetary requirement may not be absorbed by the agency budget and that an ODA loan may be required.

Table 3.4.19 Overall Investment Plan for the Traffic Safety Education and Traffic Safety Culture Development Five-Year Action Program

Unit: (Million USD)

Programs	2008	2009	2010	2011	2012	Total
Traffic Safety Education in School Plan		0.3	1.8	4.6	5.4	12.2
Traffic Safety Culture Development Plan		7.2	10.4	10.8	8.4	36.8
Total Required Budget	-	7.5	12.2	15.4	13.8	49.0

Source: JICA Study Team

3.5 Medical Emergency Development Plan

Table 3.5.1 shows the proposed implementation and investment plan for the medical emergency sector based on the planned timing for implementation and investment:

- 1) Preparation phase: January to June 2009
- 2) Implementation phase: July 2009 to Oct 2012
- 3) Final evaluation phase: November 2012

Table 3.5.1 Overall Implementation and Investment Plan for Medical Emergency Development Five-Year Action Program

Strategies	Program Components	Cost (x 1000 USD)				
		2009	2010	2011	2012	Total
Enhancement of Quality of Pre-hospital Care to Traffic Accident Victims	1) Pilot GPS system to improve capacity search and rescue for traffic accident victims		100.0	100.0	100.0	300.0
	2) Improving first aid capacity at the commune health stations	2,021.0	2,021.0	2,021.0	987.0	7,050.0
	3) Guideline to the community on first aid to the TA victims (one course per commune; estimated 11,500 courses)	3,100.0	3,150.0	3,150.0	2,100.0	11,500.0
	4) Training of trainers to improve capacity of the 115 emergency system in 9 regions.	10.8	8.1	8.1	5.4	32.4
	5) Training on capacity development for 115 ambulance system	21.6	21.6	21.6	10.8	75.6
	6) Workshop on development of emergency transportation with participation from the private sector	6.0	6.0	6.0	3.0	21.0
	7) Workshop on prevention of traffic accident and safety in community (3 courses/district x 500 districts)	300.0	400.0	400.0	400.0	1,500.0
	8) Rehabilitation capacity development in district hospitals	1,236.0	2,436.0	1,236.0	1,236.0	6,144.0
	9) Rehabilitation capacity development in provincial hospitals	396.0	396.0	396.0	462.0	1,650.0
	10) Commune-based rehabilitation for traffic accident victims (target number of communes is 10,000)	3,000.0	2,000.0	3,000.0	2,000.0	10,000.0
Subtotal 1		10,091.4	10,538.7	10,338.7	7,304.2	38,273.0
Capacity Development to Improve Preparedness for Mass Casualty Accidents	1) Training for support groups on mass casualty emergency process	63.0	63.0	63.0	31.5	220.5
	2) Training for hospital system on mass casualty emergency process	81.0	81.0	81.0	40.5	283.5
	3) Drill and exercises on mass casualty emergency (one drill per province, total of 63 provinces)	108.0	108.0	108.0	54.0	378.0
Subtotal 2		252.0	252.0	252.0	126.0	882.0
Medical Emergency Resources Development Plan	1) Training curriculum on medical emergency for traffic accident victims in medical institutions	20.0	10.0	6.0	0.0	36.0
	2) Training centers for human resource development in the health system	40.0	40.0	40.0	0.0	120.0
	3) Staffing of emergency units and commune health stations	0.0	75.0	75.0	75.0	225.0
	4) Purchase of equipment and drugs for district hospitals	5,000.0	10,000.0	5,000.0	5,000.0	25,000.0
	5) Purchase of ambulance for hospitals	5,000.0	10,000.0	5,000.0	5,000.0	25,000.0
	6) Purchase of ambulance for 115 emergency centers	2,500.0	2,500.0	2,500.0	1,950.0	9,450.0
	7) Purchase of emergency equipment for provincial hospitals for use during mass casualty accident	1,000.0	1,000.0	1,000.0	1,000.0	4,000.0
	8) Supervision training for medical emergency team leaders	0.0	5.6	5.6	5.6	16.8
	9) Periodic supervision activities in the 3 pilot areas	28.6	28.6	28.6	28.6	114.6
	10) Mid-term evaluation in the 3 pilot areas	0.0	14.1	0.0	0.0	14.1
	11) Identification of input and output indicators of the project	0.0	40.0	0.0	40.0	80.0
	12) Final project evaluation	0.0	0.0	0.0	14.1	14.1
	13) Technical support and evaluation	0.0	20.0	20.0	20.0	60.0
	14) Overseas study tour	160.0	0.0	160.0	0.0	320.0
	15) Project management	75.0	75.0	75.0	75.8	300.8
Subtotal 3		13,823.6	23,808.3	13,910.2	13,209.1	64,751.4
TOTAL BUDGET FOR 2009-2012		24,167.0	34,599.0	24,500.9	20,639.3	103,906.4

4 TRAFFIC SAFETY INSTITUTIONS

4.1 Outline of Institutional Improvement Plan

Proposed institutional improvement programs and their priority issues for the Action Program are shown in Table 4.1.1.

Table 4.1.1 Summary of 5-Year Action Program for Institutional Improvement

Development Program		Target of the 5-Year Program	Priority Action Items
Organizational Improvement	National Traffic Safety Authority	<input type="checkbox"/> Approval of the innovation plan <input type="checkbox"/> Establishment of a provisional organization and implementation of necessary activities ¹	<ul style="list-style-type: none"> • Preparation of a draft innovation plan • Coordination with relevant authorities • Capacity building with the provisional organization
	National Traffic Safety Center	<input type="checkbox"/> Approval of the established plan <input type="checkbox"/> Establishment of provisional organization and implementation of the necessary activities ¹	<ul style="list-style-type: none"> • Conduct of Feasibility Study • Coordination and consensus building • Ongoing project Monitoring and evaluation • Capacity building²
	National Traffic Safety Advisory Council	<input type="checkbox"/> Establishment of the Council <input type="checkbox"/> Start of official activities	<ul style="list-style-type: none"> • Operational regulation /guidelines • Establishment of the Executive Office • Election of Chairperson and members • Organization of periodical meetings
	National Traffic Safety Foundation	<input type="checkbox"/> Establishment of the Foundation <input type="checkbox"/> Start of official operation	<ul style="list-style-type: none"> • Conduct of Feasibility Study • Consultation from private sectors, NGOs • Submission to Advisory Council for approval • Preparatory works for the set-up of the office and invitation to members
Law and Regulation	Traffic Safety Policy Act	<input type="checkbox"/> Approval of a new law by the government, including new organizational establishment and Traffic Safety Plan development	<ul style="list-style-type: none"> • Preparation of the draft law • Coordination and consensus building • Submission to National Assembly
Notes: ¹ Major activities by the provisional organizations shall be coordinated with or should be part of the ongoing VRSP and JBIC traffic safety projects. For example, for VRSP: Component A-Institutional and Capacity Building Program, Component B- Road Safety Demonstration and Awareness Program and Component C-Road Safety Monitoring and Evaluation Program. ² Refer to JICA Hanoi Traffic Safety Human Resource Development Project (TRAHUD).			

Source: JICA Study Team.

4.2 National Traffic Safety Authority

Main functions of the NTSA will be as follows: (1) development of Traffic Safety Master Plan and Action Program, (2) promotion of private sector and community traffic safety activities and (3) provision of support to local traffic safety committees and their activities, in addition to the existing responsibilities of NTSC-Executive Office and TSPMU. The first function of the new organization, the development of a traffic safety master plan and action program, is similar with this JICA study. The NTSA is therefore expected to prepare the succeeding National Traffic Safety Plans in five to ten years time. Functions (2) and (3), however, should be undertaken immediately once this Master Plan and Action Program are approved. In particular, it is urgent that local governments' capacity to develop their traffic safety plans in accordance to their

respective local conditions will be enhanced.

To promote private sector and community traffic safety activities which are at present being implemented on ad-hoc capacity, the Government of Vietnam should take a stronger leadership and send a clear message to the community as well as to the private sector of its intention to achieve its mission for Vietnam to develop a “Traffic Safety Culture” and a “Kindhearted Traffic Society without Traffic Accident,” among others. It is also proposed that the traffic safety month should be more interesting and motivating and should promote more community activities. For the proposed new intervention to promote community traffic safety activities, the Traffic Safety Foundation, Traffic Safety Advisory Council, as well as local government organizations should play more significant roles. However, due to lack of resources in the organizations, the proposed NTSA should play wider functions in coordinating with provincial governments to promote traffic safety activities across the county.

In the Master Plan, the NTSA shall be established and be fully operational by 2015, with appropriate manpower and financial resources. By then, major functions of the new organization such as coordination mechanism, share of data and information and development of the comprehensive traffic safety measures, among others, shall be confirmed with concerned agencies. At the same time, preparatory works shall be carried out for the new support organizations during the traffic safety interventions such as Advisory Council, Traffic Safety Foundation and Traffic Safety Center. On the other hand, the ongoing VRSP and JBIC traffic safety projects would be significant opportunities to develop a new organization to upgrade human resources. Thus, accordingly, the following targets are proposed for the Action Program:

- (1) Establishment of a Provisional Organization;
- (2) Review of VRSP and JBIC traffic safety projects so as to enhance the capability through the actual project implementation and
- (3) Preparation of legal procedure for the new permanent organization.

Major activities for the coming 5-year period are shown in Table 4.2.1.

Table 4.2.1 Action Program for Development of National Traffic Safety Authority

Major Activities	Year					Major Considerations
	08	09	10	11	12	
Preparation of legal documents for the strengthening of NTSC	■	■				- Overall structure of NTSC - Rolling plan development
Consensus building and approval			■	■		- Review of draft laws
Consolidation of the full scale system					■	
Establishment of provisional organization	■					
Start of operation		■	■	■	■	
Human resource development		■	■	■	■	- With VRSP and JBIC projects
Establishment of preparatory committees for Advisory Council and Traffic Safety Foundation	■					

Source: JICA Study Team.

4.3 National Traffic Safety Center

While the NTSA will be an administrative office, the NTSC will be expected to provide necessary data and information through conduct of scientific study, research and analysis for the new traffic safety policy development. The three main activities are therefore proposed:

- (1) Research and development, monitoring and evaluation for the traffic safety measures,
- (2) Development and operation of the proposed Comprehensive Traffic Safety Database and
- (3) Human Resource Development for the traffic safety planning and implementation.

NTSC therefore has the following targets for this 5-year action program period:

- (1) To conduct a Feasibility Study on the establishment of the Center, and to build consensus among the concerned agencies particularly on data and information sharing.
- (2) To formulate a provisional organization for the ongoing traffic safety projects.
- (3) To collect necessary data and information for the next five-year plan.

Table 4.3.1 shows the major activities planned during this 5-year action program period.

Table 4.3.1 Action Program for National Traffic Safety Center Development

Major Activities	Year					Major Considerations
	08	09	10	11	12	
Conduct Feasibility Study for Center development	■					- Operational regulation and financial viability - Coordination with other institutes
Design and development of the Traffic Safety Database software		■				- Traffic data, Accident data, Road Inventory data, etc. - Driver and Vehicle information
Collection of data and information for the Database			■	■	■	- Driver and Vehicle information, socio-economic information., etc. and other available data
Establishment of provisional organization	■					- Based on the existing organizations and staffing
Collection of data and information for the evaluation of ongoing projects		■	■	■	■	- With VRSP and JBIC safety projects
Monitoring and evaluation for ongoing projects		■	■	■	■	- With VRSP and JBIC safety projects
Human resource development in the provisional organization		■	■	■	■	- With VRSP and JBIC safety projects
Preparation of Human Resource Development Plan		■				- Trainers' training
Implementation of the Human Resource Development Project		■	■	■	■	- Collaboration with educational institutions

Source: Study Team

4.4 National Traffic Safety Advisory Council

The objective of the National Traffic Safety Advisory Council is to provide linkages between government sectors and private sectors. Thus, participation of the private sector and NGOs into the traffic safety activities shall be enhanced particularly for the dissemination of the traffic education and propaganda. The Advisory Council will be formulated with members coming from both government and private sectors. The Council will be responsible in conveying any request and advice from the private sector to the NTSC and vice-versa, so that traffic safety measures would be more effective and appealing.

The Advisory Council is expected to play a significant role in developing the traffic safety culture in Vietnam as a coordinative body between the government and private sectors. Table 4.4.1 shows the major activities planned during this 5-year action program period in relation with the establishment of the Advisory Council.

Table 4.4.1 Action Program for National Traffic Safety Advisory Council

Major Activities	Year					Major Considerations
	08	09	10	11	12	
Preparation of the charter for the Council and consensus building	■					- Responsibility for the foundation - Status and authority of the Council
Preparation of Operational Regulations and Guidelines	■					- Membership, voting rights, etc - Annual Report
Establishment of Executive Office		■				- In the proposed NTSA (authority)
Selection of the members and chairperson		■				- From Government, NGO, Private sector, International community
Preparation of annual Action Program			■	■	■	■
Permanent operation			■			- Periodical meetings

Source: JICA Study Team

4.5 National Traffic Safety Foundation

The National Traffic Safety Foundation is aimed at providing sustainable fund resources for continuous dissemination activities to increase traffic safety awareness and also to promote traffic safety interventions with NGOs and private companies as well as communities. Not only local organizations but also foreign organizations are envisioned to be involved in the Foundation. Foreign organizations such as international automobile companies have extensive experiences and know-how on the conduct of traffic safety campaigns and activities. Moreover, they have played significant roles in various forms in foundations from other countries. On the other hand, the automobile industry, which is a leading industry for the development of automobile society, is envisioned to take social responsibility in achieving more desirable traffic society in the concept of Corporate Social Responsibility (CSR).

A foundation is one of the popular systems present in the traffic safety sector in other countries. Many types of traffic safety foundations are operating from national level to local level, from research activity to propaganda activities. In Vietnam, there are some

NGOs providing support for traffic safety campaigns and other activities. Since the proposed Foundation shall promote nationwide activities, accordingly, it shall require sufficient funding available for its operation. It will then be necessary to invite many organizations, particularly those from automobile and its related sectors. To make the Foundation more attractive to the target sectors, aside from encouraging these corporations to adhere to the concept of CSR, some incentives may also be provided for their contributions such as tax exemption for social contributions. The proposed National Traffic Safety Advisory Council should take responsibility in preparing a more desirable environment and to make participation to traffic safety activities of the Foundation more attractive.

During this 5-year action program period, the National Traffic Safety Foundation development program is aimed at establishing the Foundation and making it fully operational as soon as possible so that funds for Traffic Safety Culture development program will be secured. Major activities for the action program are shown in Table 4.5.1. The legal procedure should be completed by 2010, and from then on, it shall gradually build up the organization according to the expansion of the activities.

Table 4.5.1 Action Program for National Traffic Safety Foundation

Major Activities	Year					Major Considerations
	08	09	10	11	12	
Feasibility Study on establishment of the foundation	■					- Corporate status, tax incentives - Fund operation
Preparation of Articles of the Foundation		■				- Relationship with NTSA and Advisory Council
Preparation of Operational Regulations of the Fund		■				- Compliance - Audit system
Establishment of the Executive Office		■				-
Preparation of yearly activity plan and Schedule		■	■	■	■	- Traffic Safety Culture development - National Traffic Safety Campaign
Start of Operation			■	■	■	

Source: JICA Study Team

4.6 Development of Legal System for Sustainable Traffic Safety Policy

To eliminate complex traffic accident causes including defects on road facilities and lack of social consciousness on traffic safety as discussed in the Master Plan, the comprehensive approaches and sustainable efforts shall be the most important strategies. In order to ensure sustainability, needless to say, it is important to establish a comprehensive institutional infrastructure such as a Traffic Safety Policy Law, which covers new organizations and systems proposed in the Master Plan. The Policy Law shall cover the function of the NTSC and the PTSC, policy guideline for the Traffic Safety Plans (Master Plan and Action Program). Under this Law, implementation regulation of the NTSA, National Traffic Safety Advisory Council and Traffic Safety Foundation implementation regulations should also be clarified and identified clearly.

For Traffic Safety Plans development, the laws should define the status of the Traffic

Safety Mater Plan and Traffic Safety Fundamental Plan (Five-year Plan) which will be prepared by the NTSC, and status of the Local Traffic Safety Plan prepared by the provincial governments and city governments. In addition, this JICA Traffic Safety Master Plan Development Study is aimed at formulating a nationwide Traffic Safety Fundamental Plan, and based on this fundamental plan, each provincial government shall develop their own Traffic Safety Plan.

Target of the Action Program is to legalize proposed institutional innovations discussed in this chapter. The Traffic Safety Policy Law may not be absolutely necessary; it may include other laws or ordinances such as the Road Traffic Law, as long as proposed institutional innovations are legalized.

4.7 Cost Estimation and Investment Plan for the Institutional Innovation

Table 4.7.1 shows the estimated investment cost and schedule for the institutional innovations discussed in this chapter. Total investment required is USD17.37 million during the 5-year action program period.

Table 4.7.1 Overall Investment Plan for Institutional Improvement Five-Year Action Program

Unit: (Million USD)

Program	Cost Item	Cost	Investment Plan					Remarks
			08	09	10	11	12	
National Traffic Safety Authority	Legalization	0.06	0.03	0.03	-	-	-	Consultant fees
	Office Facilities	4.50	-	-	-	-	4.50	
	Equipments	0.15	-	-	-	-	0.15	
	Capacity Building	0.20	-	0.05	0.05	0.05	0.05	Training
	Total	4.91	0.03	0.08	0.05	0.05	4.70	
National Traffic Safety Center	F/S	0.06	0.03	0.03	-	-	-	Consultant fees
	Office Facilities	9.00	-	-	-	4.50	4.50	
	Equipments	1.00	-	-	-	0.50	0.50	
	Software	0.12	-	0.06	0.06	-	-	Consultant fees
	Capacity Building	0.32	-	0.08	0.08	0.08	0.08	Training
	Total	10.50	0.03	0.17	0.14	5.08	5.08	
National Traffic Safety Advisory Council	Legalization	0.03	0.03	-	-	-	-	Consultant fees
	Total	0.03	0.03	-	-	-	-	
National Traffic Safety Foundation	F/S	0.10	0.05	0.05	-	-	-	Consultant fees
	Office Facilities	1.80	-	1.80	-	-	-	
	Capacity Building	0.05	-	0.05	-	-	-	Training
	Total	1.94	0.05	1.90	-	-	-	
	Grand Total	17.37	0.14	2.15	0.19	5.13	9.78	

Source: JICA Study Team

5 ECONOMIC EVALUATION AND IMPLEMENTATION PLAN

This Chapter will present the economic justification for each proposal in each sector, and the Investment Fund Resources and Implementation Schedule for the whole Action Program.

5.1 Overall Economic Evaluation of the Action Program

1) Cost Estimation for the Action Program

Total cost of the Five-Year Action Program is estimated at USD1,351 million (about VND22,289 billion). Table 5.1.1 summarizes total cost presented by implementation year. Based on the total cost of the proposed Action Program, the following should be taken into consideration.

- The GOV's approved Scheme to ensure National Traffic Order and Safety as indicated in Decision No 259/QDD-TTg dated 4 March 2008 estimated an amount of VND 6,953 billion. The very large discrepancy of the estimated costs between the Scheme and the Action Program however is due to very different scope in terms of timing and coverage.
- Total cost of this Action Program is approximately 1.66% of the nationwide GDP in 2007, which is lower than the economic loss due to traffic accidents nationwide (about 2.8% of GDP as already mentioned).

2) Economic Benefit from the Action Program

The EIRR for said investment is showing a high EIRR of 21%, Net Present Value (NPV) at USD 50,798 Million and Benefit/Cost Ratio (B/C) at 1.86, which economically justifies the Action Program.

The sensitivity of EIRR is tested in terms of cost increase and benefit decrease. The Action Program is still economically viable with 13% EIRR even if the cost increases 10% and benefit decreases 10% (Table 5.1.2).

Table 5.1.1 Cost Estimation for the Five-Year Action Program by Sectoral Program

Unit: (Million USD)

	Traffic Safety Program	Annual Investment Plan					Total
		1	2	3	4	5	
Road Infrastructure	1) Black Spot Improvement Plan	8.3	7.9	10.9	13.1	12	52.0
	2) Traffic Safety Audit System Development Plan	0.3	0.7	0.6	0.5	0.4	2.5
	3) Traffic Safety Corridor development Plan	0.7	30.4	50.1	50	50	181.2
	4) Highway TS Facility Enhancement Plan	39.6	77	92.2	91.9	91.9	392.6
	5) Vulnerable Road User Accident Prevention	1.5	12.8	25	25	25	89.3
	6) Expressway Safety Development Plan	1.2	1	0.3	0.3	0.3	3.1
	7) Road Work Traffic Safety Development Plan	6.7	2.7	5.1	0.2	0.2	14.9
	8) TS Monitoring and Maintenance Plan	0.5	0.3	0.4	0.4	0.4	2.0
	9) Human Resource Development Plan	-	-	0.1	0.7	0.4	1.2
	Sub-total	58.8	132.8	184.7	182.1	180.6	739.0 [54.7%]
Transport Management	1) Safe Driving and Vehicle Safety Development	-	12.5	51.6	46.4	3.3	113.9
	Sub-total	-	12.5	51.6	46.4	3.3	113.9 [8.4%]
Traffic Enforcement	1) Enforcement for Inexperienced Road Users				4.9	5.7	10.6
	2) Enforcement for Deliberate Law Violations	3.2	2.0	3.5	3.5	3.5	15.6
	3) Traffic Safety Culture Supporting Program		0.2	3.9	4.2	4.0	12.2
	4) Comprehensive TS Enhancement Program		0.3	4.1	4.6	4.2	13.2
	5) Database Development Program		0.9	5.6	5.6	5.6	17.7
	6) Human Resource Development Program		1.8	4.2	4.6	2.8	13.5
	7) Enforcement Equipment Modernization Preparation	53.6	47.7	44.8	35.7	31.9	228.7
	8) Transport Inspectors Program		2.8	5.2	4.7	3.3	16.1
	Subtotal	56.7	53.0	66.1	63.0	57.7	327.7 [24.3%]
Traffic Safety Education and Traffic Safety Culture	1) Safety Practice for Pre-school Children			0.2	0.2		0.4
	2) Traffic Safety Education for Students		0.0	0.1	2.0	3.6	5.7
	3) Community Involvement Program		0.0	1.0	2.0	1.7	4.7
	4) Institution and Human Resource Development for Schools		0.0	0.4	0.4	0.2	1.1
	5) Traffic Safety Culture Development Program		7.2	10.4	10.8	8.4	36.9
	6) Traffic Safety Campaign and Propaganda		0.2	0.0	0.0		0.3
	Subtotal		7.5	12.2	15.5	13.9	49.0 [3.6%]
Medical Emergency	1) Pre-hospital Care Enhancement		10.1	10.5	10.3	7.3	38.3
	2) Capacity Development for Mass Casualty		0.3	0.3	0.3	0.1	0.9
	3) Medical Emergency Resources Development		13.8	23.8	13.9	13.2	64.8
	Subtotal		24.2	34.6	24.5	20.6	103.9 [7.7%]
Institution	1) National Traffic Safety Authority	0.1	0.1	0.1	0.1	4.7	5.1
	2) National Traffic Safety Center	0.1	0.2	0.1	5.1	5.1	10.6
	3) National Traffic Safety Advisory Council	0.1	0.1	-	-	-	0.2
	4) National Traffic Safety Foundation	0.1	1.9	-	-	-	2
	Subtotal	0.4	2.3	0.2	5.2	9.8	17.9 [1.3%]
Grand Total Investment (USD million)		115.7	238.9	358.5	345.4	292.3	1,350.8 [100%]

Source: JICA Study Team

Table 5.1.2 Sensitivity Analysis (EIRR: %)

EIRR		Cost Increase			
		<i>0% up</i>	<i>10% up</i>	<i>20% up</i>	<i>30% up</i>
Benefit Decrease	<i>0% down</i>	21%	17%	13%	10%
	<i>10% down</i>	16%	13%	10%	7%
	<i>20% down</i>	12%	9%	6%	4%
	<i>30% down</i>	7%	5%	2%	0%

Source: JICA Study Team

5.2 Investment Fund Sources

There are potential funding sources, as follows:

- Value-added generated by transport to State budget
- Surcharge for ensuring traffic safety in addition to funds collected from fines
- Surcharges on motor fuel
- Surcharges on weight-distance charges
- Surcharges on vehicle insurance compulsory
- Surcharges on vehicle license fees
- Surcharges on road tolls
- Contribution by private sector
- Development loans and grants

Among them, the first one, the value-added generated by transport, is advantageous for majority of cases and it justifies the investment of state budget in transport and/or traffic safety projects by contributing to the increasing magnitude of state budget through tax and through other contributions for socio-economic development. But this value-added cannot be an extra receivable resource for traffic safety.

The last two, contribution from private sector and development loans and grants, largely depend on the sponsors/donors and need special mobilization mechanism. The private sector is proposed to contribute to the Traffic Safety Foundation as presented in previous section while securing loans and grants is the responsibility of the Government. Therefore, the issue is how to mobilize the rest of potential funding resources for the Five-Year Action Program.

The other sources could be mobilized for traffic safety after the formation of adequate institutional framework.

5.3 Implementation Policies

To ensure the successful implementation of the Action Program, it is necessary to confirm the following:

- Implementation strategies
- Roles and responsibilities of any road safety stakeholder
- Monitoring and evaluation.

1) Implementation Strategies

The improvements to be implemented cover all major sectors related to road safety and the individual countermeasures were phased to ensure maximum effect. The strategies adopted are as follows:

- The Action Program proposes various measures based on the 4E approach and the “All-People” and “Comprehensiveness” policies. Therefore, implementation should also be based on the same approaches/policies.
- For the great social impact of the proposed Action Program, a very strong leadership from the Government is essential to ensure the smooth and sustainable implementation.
- In addition and equally as important, a close relationship among responsible agencies and between central and local governments is necessary; thus, the adoption of the 4Cs (cooperation, collaboration, coordination, and communication) approach is advisable.
- The initial years of this Action Program shall have preparatory works as the main tasks, which will prove convenient and provide opportunities for further activities. Among the preparatory works, those concerning institutional and planning issues are being emphasized, which impacts greatly on the smooth and sustainable implementation of the entire Master Plan and the first Five-Year Action Program.
- For some key strategic improvements to be carried out, absolute funding will be necessary (such as for the development of an improved accident data system). For some other proposed measures, however, some amount (or “seed money”) should be enough to realize and encourage desirable results and developments. There are also some proposed measures which may require funding or support for a limited period only, after which, anticipated developments and resulting activities (or sustainable operation) would eventually take over the funding requirement:
- For staffing development and technical assistance, funds for technical specialization training of key personnel is necessary so that in the future, the more comprehensive safety improvements that will be required could be implemented by adequately-trained and skilled local professionals. For the interim period, technical assistance from international specialists and consultants would be required to assist in planning and implementation of the key strategic improvements as well as in the training of local staff through demonstration projects

2) Roles and Responsibilities of different road safety stakeholders

Following the “All-People” policies, any stakeholder could and should take part in the traffic safety activities. It is enviable for each stakeholder to actively participate and own to their roles/responsibilities as professionally as possible. To do that, suitable legal framework and policies to encourage these stakeholders are very essential.

3) Monitoring and Evaluation

All road safety activities should be monitored to ensure that money is being spent effectively and lessons are learned about the most and least successful schemes.

Given that funds are always limited for such purposes, it is imperative that the money available is spent in the most efficient, prudent and effective way to tackle the problem. As each initiative is implemented, the effectiveness of that measure should be monitored (ideally by comparing accident data from the before and after program implementation for equivalent periods of time).

Monitoring of an overall action program aimed at institution building and strengthening the key agencies with road safety responsibilities must focus on whether the objectives of the action program are being achieved. It is necessary to ensure that the activities of the consultants and specialist advisors have been effective and that the impact of such activity is having the desired effect in terms of strengthening the capability of the country to tackle the problem.

The use of monitoring frameworks is to be recommended and generally results in greater success in terms of implementation of action programs.

This identifies (in a framework format) exactly what activities are to be carried out as part of the action program implementation and seeks to identify performance indicators that can be used to see whether or not the desired impact has been achieved. They can be used during implementation to identify whether the project is progressing as desired in terms of development and institutional impact.

PART V CONCLUSION AND RECOMMENDATION

1 CONCLUSION

The National Traffic Safety Master Plan Study has been completed by the JICA Study Team in cooperation with the NTSC and other line ministries, MOT, MOPS, MOET, and MOH. Major findings of the Study are summarized as follows:

- (1) Smooth economic development has brought rapid increase in rate of motorization. As of 2007, a total of 23 million vehicles are registered across the country, 90% of which are motorcycles, a phenomenon creating a unique motorization characteristic in the world.
- (2) Number of traffic accidents has decreased since 2002; however, the number of fatalities has remained high with over 10,000 fatalities since year 2001. In 2007, total number of fatalities and injuries reported were 12,800 and 10,266 respectively, which increased economic losses to approximately 3% of the GDP.
- (3) Causes of the traffic accident are intricately-intertwined between physical situation and human errors, mixed traffic and reckless driving behaviors. Many traffic accidents have occurred on the main national highways, particularly in the major urban areas and its conurbations, of which 70% of total fatalities are motorcycle users. The major causes of accidents are over speeding and reckless overtaking. Moreover, it should be underscored that more than half of the total victims are below 30 years old.
- (4) The Government of Vietnam has undertaken numerous countermeasures as well as enlisted the support, assistance and cooperation of international donors to alleviate one of the most pressing social problems in the country at present, which is traffic safety. While some of the countermeasures are showing positive results such as the nationwide campaign for helmet wearing, however, there is still a long way to go to develop safe driving behaviors among traffic participants in the country.
- (5) Urgent traffic safety issues have been addressed by the different sectors, such as black spot improvements and traffic safety corridor improvements for the Engineering sector, and enhancement of the traffic enforcement capacity and dissemination of the school traffic safety education for Enforcement and Education Sectors respectively, as well as development of the 115 system for Emergency sector. However, these efforts are still on the pilot stages and only in very limited areas.
- (6) Based on the current road traffic safety situations in Vietnam, the Traffic Safety Master Plan and its Action Program have been developed. The Master Plan is aimed at developing traffic safety development policies and strategies toward 2020, while the Action Program will be the implementation program of the proposed Master Plan policies and strategies for the next five years (2008-2012). However, based on the endorsement schedule of the proposed plans of the government, the actual implementation period of the Action Program should be re-interpreted to the period 2010-2014.

- (7) Proposed Action Program is an integration of different sectoral programs into a comprehensive program: Transport Engineering (9), Transport Operation (1), Traffic Enforcement (8), Traffic Safety Education and Traffic Safety Culture Development (6), Medical Emergency (3) and Institutional Improvement (4), for a total of 31 programs.
- (8) Estimated investment cost is USD1,351 million (about VND22,289 billion) million for the next 5 years, where 55% of the total investment is for engineering improvement followed by enforcement sector with 24% share in total required investment. License and vehicle system improvement and medical emergency improvement share approximately 8% of the total respectively. Those investments are mainly for the hardware improvement such as safety facilities, nationwide communication system, among others. Investment share for Education sector on the other hand is smaller because focus for these sectors are soft components such as human resource development which requires much lesser investment as compared with infrastructure and equipments investments in the other sectors. The economic internal rate of return (EIRR) for said investment is showing a high EIRR of 21%, which economically justifies the Action Program.

2 RECOMMENDATION

Proposed national road traffic safety Master Plan will be a basic policy and guideline for the national government. Local governments shall be required to prepare their own Traffic Safety Development Plan based on the policy and guideline. The Master Plan and Action Program include all the ongoing measures and efforts, but the following are some of the major recommendations:

- (1) Mission of the Road Traffic Safety Development Policy: A Kindhearted Traffic Accident-Free Society
- (2) Proposed targets toward 2020 are:
 - (i) To reduce the number of fatalities into half (based on 2007 figures).
 - (ii) To strengthen the capability and functions of the organizations involved in road traffic safety and to develop new organizations and rules/regulations necessary to ensure sustainability of traffic safety measures.
- (3) Proposed basic strategies in the implementation of the traffic safety measures in the Master Plan are in two areas, Basic Planning Policies and Implementation Strategies:

Basic Planning Policies

- (i) Covering the three elements of Person, Vehicle and Road Traffic Environment, six (6) measure areas are identified for implementation of effective and efficient traffic safety measures.
 - Development of Safe Road Traffic Environment
 - Enhancement of Safe Driving
 - Ensuring Safety in Vehicles
 - Effective and Efficient Traffic Control and Enforcement

- Enhancement of Traffic Safety Education and Propaganda
- Development of Post-Accident Countermeasures (Medical Emergency)

(ii) Institutional development

(iii) Human and financial resource development

Implementation Strategies

a) Comprehensive traffic safety development

b) Traffic safety culture development

c) Technological innovation

(4) Proposed focus areas to reduce the number of traffic accident fatalities are: (i) Motorcycle, (ii) National Highways, (iii) Urban areas and its Conurbation, (iv) Young Population, (v) Commercial Vehicles, and (vi) Post-accident measures.

(5) Intersectoral institution and resource development for sustainable traffic safety development proposes three institutional development programs:

(i) Administrative Enhancement Programs that includes enhancement of NTSC and PTSC,

(ii) Research and Development Program for the proposed Traffic Safety Center, and

(iii) Resource Development Program that includes Traffic Safety Foundation, new Vehicle Tax System and Traffic Safety Human Resource Development.

(6) Sectoral Traffic Safety Measures

(i) Transport Engineering (MOT): Traffic safety facilities shall be improved based on the function of the road network including National Highways, Urban Roads, local roads as well as Expressways. In addition to the facility improvement, the following systemic reforms shall be implemented and introduced;

- Traffic Safety Audit System
- Traffic Impact Assessment system
- Traffic Safety Project Monitoring and Maintenance System

(ii) Transport Operation (MOT): Two important systems are proposed in this sector. One is new license and inspection system for motorcycle, the other one is Safe Driving Management System for transport companies which will identify transport operators' responsibility on the traffic accident.

(iii) Traffic Enforcement (MOPS): for the traffic enforcement sector, current efforts on the human resource development and modernization of the enforcement activities, as well as traffic accident database development shall be further strengthened in order to meet the rapid expansion of the motorization.

(iv) Traffic Safety Education (MOET): The Study has proposed a comprehensive traffic safety education system not only in school education, but also community education with the concept of "Participation, Experience and Practice" so as to develop a desirable traffic safety culture (behavior) among the people of

Vietnam.

- (v) Traffic Accident Medical Emergency (MOH): Medical emergency system in Vietnam is presently under the development stage, so that it is difficult to develop effective system for the traffic accident emergency alone. In the short-term period, it is proposed that 115 emergency system be disseminated to the people for better access and use of the system. But the insurance system, including the Compulsory Liability Insurance, should be urgently improved.
- (7) Recommendation on the Human Resource Development: Two types of human resource development will be required. One is to educate leaders and experts from various concerned organizations and another is to develop adequate manpower to implement the proposed traffic safety measures, such as traffic police and traffic engineers. The leaders and experts will be provided advanced training in the proposed Traffic Safety Center. Traffic Police and Traffic Engineers will be educated in the higher educational institutes such as universities and academies.
- (8) Recommendation on the Financial Resource Development: One of the significant issues in the successful implementation of both the Master Plan and the Action Program is the availability and source of funding. In order to ensure smooth implementation of the proposed traffic safety measures, the availability of sufficient budget will be indispensable. Since the present available fund resources are very limited, other alternative sources of funds should therefore be urgently developed. The Study proposes a Traffic Safety Fund for Traffic Safety Culture development and other road user charges for overall traffic safety measures. The new license and inspection system for motorcycle is expected to increase the responsibility of the motorcycle users, and at same time, the surcharges from fees can be one of the potential fund resources.
- (9) Comprehensive Traffic Safety Action Program is proposed for the coming five (5) years in order to achieve the proposed three target as follows:
 - (i) Majority of road users have formed the inherent habit of respecting all traffic rules.
 - (ii) A reduction of 5.2 - 6% in traffic accidents per year against previous year, in terms of the absolute number of fatalities.
 - (iii) Strengthening of the capability and functions of the organizations involved in road traffic safety.

PART VI TECHNICAL ASSISTANCE FOR CAPACITY DEVELOPMENT ON THE TRAFFIC SAFETY CULTURE AND FOUNDATION

1 INTRODUCTION

Background: After numerous collaborative efforts from the JICA Study Team, the NTSC and other counterpart teams, this Master Plan Study which is primarily aimed at developing a National Road Traffic Safety Master Plan until 2020 and formulating an Action Program for the next five years has been completed. The Master Plan and Action Program have introduced a series of traffic safety development programs covering both intersectoral and sectoral issues which aim to reduce by half the number of fatalities as well as to improve institutions concerned with traffic safety. This includes proposed programs for organization (or re-organization, as the case may be) and systems development towards comprehensive traffic safety policy development.

The submitted Master Plan and Action Program will undergo the usual and necessary approval process by the Government of Vietnam. Current serious traffic accident situation however requires immediate implementation of whatever effective countermeasures can reduce the number of traffic accident fatalities. While the Government of Vietnam has already initiated urgent implementation of measures such as helmet wearing and strengthening of traffic law enforcement to curb this serious and worsening traffic situation, further efforts are urgently and strongly required to ensure sustainable traffic safety development. Among the urgent required measures is the improvement of traffic safety awareness since lack of it accounts for more than 80% of the cause of traffic accidents. Thus, the community-based activity (traffic safety culture activity) that aims to raise traffic safety awareness among road users was proposed in the Master Plan and Action Program. In order to successfully implement these community-based activities, a comprehensive approach that includes not only the concerned Ministries such as MOT and MOPS but also the local governments, civic organizations, homeowners associations, and private companies will be requested, with the National Traffic Safety Committee (NTSC) expected to play a key role during the implementation.

To respond to this urgent need, the NTSC has requested additional technical assistance from the Government of Japan for sustainable traffic safety development to achieve the proposed mission of the Master Plan of a “Kindhearted Traffic Accident-Free Society”. And this Part VI is a summary of the said additional technical assistance.

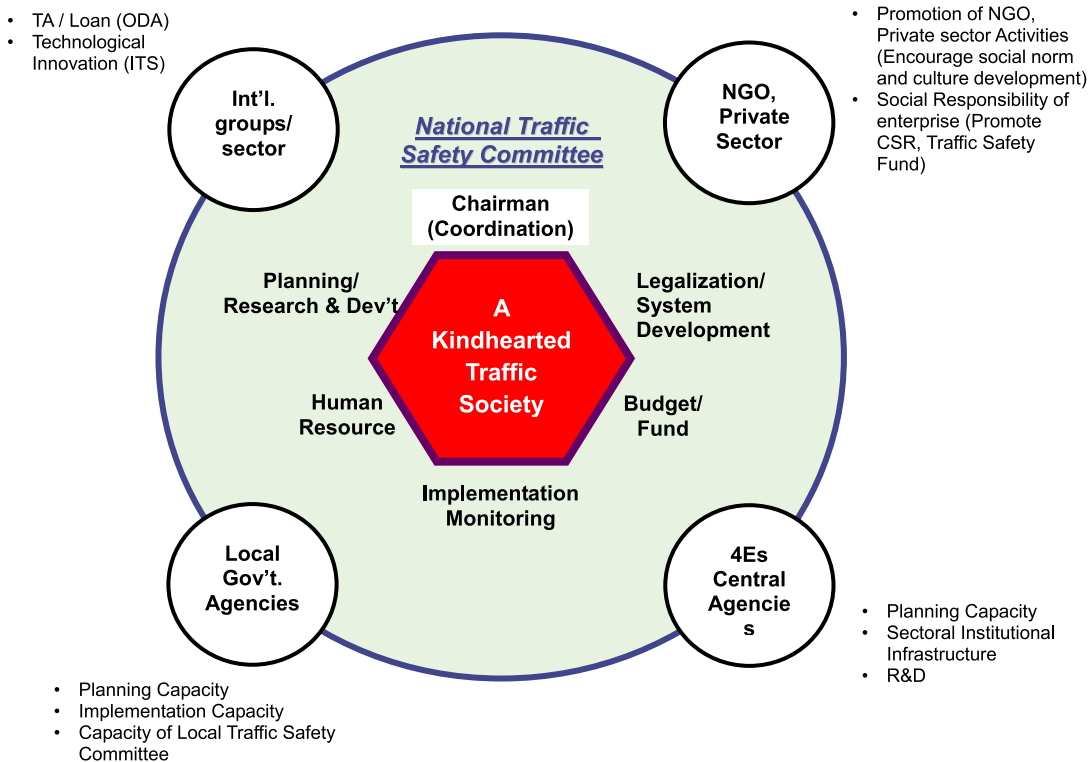
Objectives: One of the significant improvements towards sustainable traffic safety development is the functional strengthening and capacity building of the National Traffic Safety Committee, particularly in the promotion of the comprehensive traffic safety development. The Master Plan and Action Program have proposed several safety programs for the communities to enhance peoples’ traffic safety awareness wherein NTSC is expected to play significant roles in promoting it through coordination with related agencies, assessment on how to secure new budget for the activities and development of public relation activities for nationwide coverage. Therefore, to further

strengthen NTSC function, the additional assistance will focus on the following areas:

- (1) Examination of required institutional mechanism for Traffic Safety Culture Development,
- (2) Examination on the establishment of a Traffic Safety Foundation, and
- (3) Support for traffic safety campaign to enhance peoples' safety awareness.

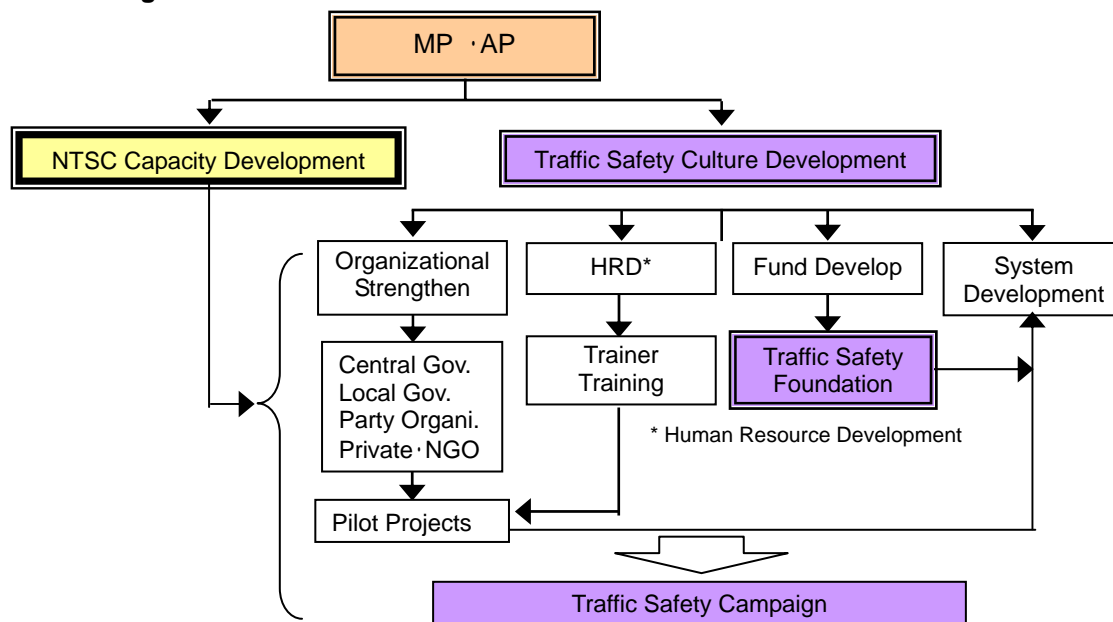
Implementation Methodology: The function of the NTSC proposed in the Master Plan is presented in Figure 1.1.1, mainly formulating a comprehensive and sustainable traffic safety development plan as well as establishing a communication and collaboration mechanism with sectoral agencies, local government agencies, international donors, and the private sector. On the additional technical assistance, in order to improve practical knowledge and skills, the Master Plan proposes to promote an approach with "Participation, Experience and Implementation". The NTSC Executive Office established taskforce teams for each of the activities while the pilot project and examination was implemented with the JICA Study Team. Figure 1.1.2 shows a work structure for the additional work as well as the relation between the main objective and focus areas.

Figure 1.1.1 Proposed Functions of the NTSC



Source: JICA Study Team

Figure 1.1.2 Work Structure for the Additional Assistance



Source: JICA Study Team

2 PILOT PROJECT OF TRAFFIC SAFETY CULTURE DEVELOPMENT

2.1 Introduction

1) Background and Rationale of the Pilot Project

An important role of the NTSC includes the implementation of intersectoral traffic safety measures. NTSC has already planned and implemented traffic safety campaigns every September as well as implemented measures for specific themes such as helmet wearing. While these implemented measures have positive results, unfortunately, the peoples' dangerous driving behaviors and habits have not yet completely changed to be considered the formation of a traffic safety culture. Traffic safety culture evolves from the daily practice of proper road use behavior which in turn accumulatively internalizes an individual's attitude, develop its subjective norm and safety-consciousness leading to a safe habit. This then gradually develops into a sense of social conscience which will naturally and inherently transform to a traffic safety culture behavior.

While traffic safety education is being implemented in schools under the MOET, measures of safety education at community level do not have enough examples. The necessary measures at the community level towards behavioral changes are not only implementation of educational activities but also the formulation and implementation of a comprehensive program which includes the improvement of both traffic environment and traffic enforcement. And since a comprehensive program shall require as indispensable various sectoral measures, the more that NTSC's role becomes very important. In addition, while practical activists are the people in each community under the supervision of the PTSC, it is necessary to establish a system and formulate policies towards sustainable implementation of traffic safety culture activities. Thus, this pilot project was implemented with the sole purpose of providing NTSC with the necessary experience and basic implementation knowledge towards the institutionalization of the traffic safety culture activity.

The pilot project is therefore aimed towards:

- (i) Studying knowledge of behavioral habits through practical traffic safety culture activity
- (ii) Identification of the coordinating organizations that shall play a key role in implementing the traffic safety culture activity along the national highways to improve coordination capability.
- (iii) Identification of possible recurring implementation issues that can hamper sustainable traffic safety culture development to guide them in future implementation activities.

1) Problem Statement

Risk-taking behavior, of students in particular and the youth in general, is the major factor of human error that has caused majority of traffic accidents on national highways and hence resulting in road traffic safety problems at present. Countermeasures to address the problems shall be derived from the development and improvement of road user attitude and behavior through education and training so that they can apply their learnings in their day-to-day road use and traffic participation. It is expected that once this learning on proper road use and behavior is put into consistent practice, it becomes an inherent behavior, and thus, eventually, accepted as a safety culture in the communities.

2) Priority Target Audience

High school students have a high tendency of risk taking behavior. They have low perception of risk, and instead consider risk-taking as a challenging character admired by peers and friends. Also, when they ignore the red light, others are bound to follow, which in turn, results to road traffic accidents and hence, social dilemma.

3) Objectives

- (i) To introduce "Safe School Zone focusing on Safe Route to School"
- (ii) To educate high school students on how to bike and walk to school safely
- (iii) To encourage community participation and to raise awareness on traffic safety in the community

The success of the safe route to school program lies in the enthusiasm of the local authority/municipality, school, and community for working together towards a common goal, that is, to increase awareness and to lower the number of road traffic accidents.

Therefore, the cooperation among parties concerned, community participation and an integration of education, engineering, enforcement, encouragement and evaluation are the vital key to the successful development of traffic safety culture and to the sustainable improvement of motorists' and other road users' behaviors.

4) Site Selection

Since a JBIC-financed traffic safety project will be implemented along the national highways from 2009, it was decided that the site of the pilot project was to be selected from along these national highways (NH3, NH5, NH10, NH18). Doing so, the output of

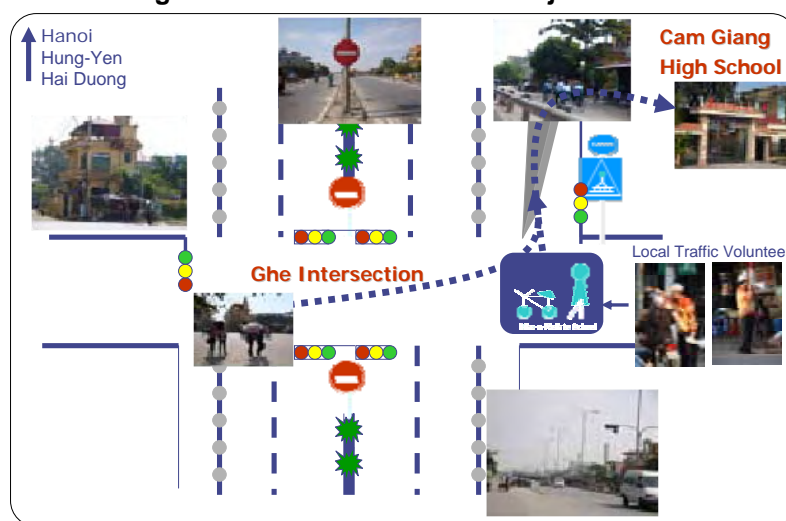
this pilot project will be able to continue to the next step.

Based on the discussion with members of the task force of counterpart teams, an agreement was made to conduct a pilot traffic safety culture project under the Master Plan study in Cam Giang, with Cam Giang High School students as the target group.

The pilot study covers an area of 500 to 1000m from Cam Giang High School to Ghe Intersection in Tan Truong Commune, Cam Giang District.

Cam Giang High School has 1,390 students and 69 teachers where 95% of students and 85% of teachers commute to school by bicycle and motorbike, respectively.

Figure 2.1.1 Location of Pilot Project



Source: JICA Study Team

2.2 Characteristics of the Pilot Project Site

1) General Situation of Cam Giang High School in Hai Duong Province

The following are some of the characteristics of Cam Giang High School:

- (i) Cam Giang High School has more than 1,500 students and most of them walk or bike from/to their residence to/from school daily in approximately 5-7 km of travel distance.
- (ii) Cam Giang High School is located along NH No. 5 which is an international highway where industrial zone is located and a lot of accidents frequently occur.
- (iii) More than 100 students and local residents use and cross the roads at Ghe intersection daily.
- (iv) High school students have a high tendency of risk taking behavior and low perception of risk.
- (v) The more risk behaviors they perform, the more respect and admiration they receive from their friends.
- (vi) Once the students ignore a red light, others follow which result in potential road traffic accidents and hence becoming a social dilemma.

2) Characteristics of Traffic Situation on Ghe Intersection

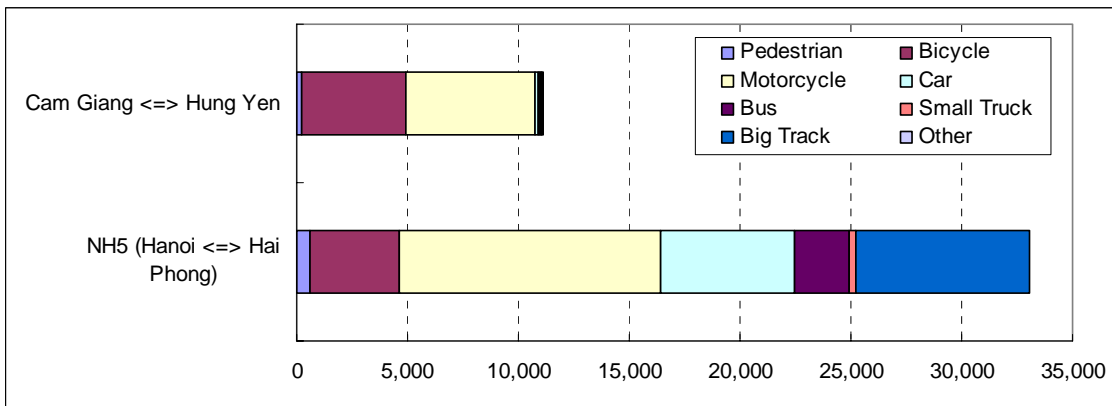
Ghe Intersection is located in Tan Truong Commune, Cam Giang District, Hai Duong

Province which has a total of five (5) public and private schools in its vicinity.

(i) Daily Traffic Volume

Traffic volume on NH5 is more than 30,000 vehicles per day. The share of the two- and four-wheeled vehicle is almost the same. The traffic volume Direction of Cam Giang and Hung Yen is more than 10,000. Majority of them are bicycle and motorcycle. (Figure 2.2.1)

Figure 2.2.1 Daily Traffic Volume at Ghe Intersection

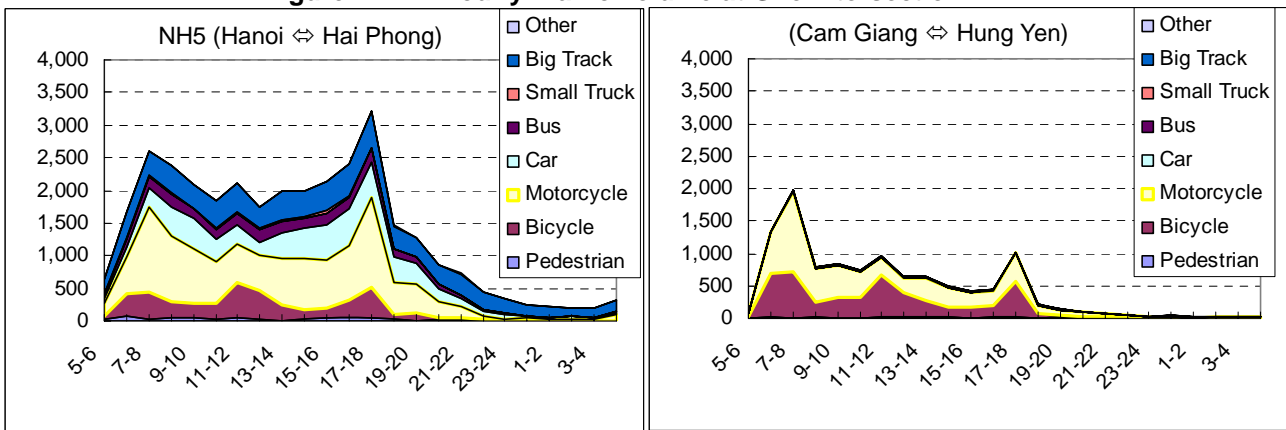


Source: JICA Study Team

(ii) Hourly Traffic Volume

There are 2 peak hours in this intersection, around 08:00 and 18:00, wherein traffic situation becomes very complicated.

Figure 2.2.2 Hourly Traffic Volume at Ghe Intersection



Source: JICA Study Team

3) Traffic Safety Awareness of Local Residents

A sample of 107 residents living near Ghe intersection participated in an interview survey on traffic safety awareness. Questions asked during this survey are those pertaining to traffic behavior at Ghe intersection, opinion about traffic safety, traffic accident experience, and personal information.

The following are some of the major findings during the interview survey:

- (i) Almost all road users feel unsafe when crossing Ghe intersection.
- (ii) Majority of road users feel unsafe during peak hours (6:00-8:00 and 16:00-18:00).

- (iii) Major reasons perceived contributing to unsafe road traffic are “People’s driving manner” and “Lack of traffic lights and signs”.
- (iv) The most important countermeasure that is perceived to improve traffic safety is the operation of traffic lights and installation of signage.

4) Identified Traffic Safety Issues on the Pilot Site

The results of the survey indicate that it is necessary to operate a traffic signal on Ghe intersection during peak hours at the least to keep traffic safe and smooth. In addition, traffic safety culture activities by traffic police and local volunteers may be requested to protect vulnerable road users and to promote awareness among road users when traffic signal is operated in the intersection.

2.3 Traffic Safety Culture Activity in the Pilot Project

1) Objectives and Pilot Activity Introduced

The conduct of traffic safety culture activities is aimed at:

- (i) Introducing “Safe School Zone” focusing on “Safe Route to School” to raise road users’ awareness and encourage community and student participation in traffic safety culture activities in Cam Giang;
- (ii) To identify the coordinating organizations that shall play a key role in implementing the traffic safety culture activity in the provincial school along the national highways for initial capacity building purposes.

The traffic safety culture activities introduced during the pilot project are as follows:

- (i) Activity 1: Traffic Safety Culture (TSC) Student Activity Corner
 - Quiz time (Q & A about traffic laws & traffic signs)
 - Demonstration on high risk behaviors
 - Student activity corner: PR of TSC youth club website
- (ii) Activity 2: Safety Patrol Volunteer Program at Ghe Intersection
 - Operation of traffic light during school peak hours
 - Improvement on road environment
 - Repaint crosswalk marking

2) Student Activity Corner

Improvement of Equipment on Campus: Based on the observation and assessment before the conduct of the pilot project, the following activities that can contribute to traffic safety education were implemented in cooperation with the school teachers.

- (i) Placement of Banner on School’s gate
- (ii) Setup of student activity corner (and improvement of information board)
- (iii) Re-painting of traffic sign on the wall

Opening Ceremony Activities: The opening ceremony was well-attended, with more than 100 invited local authorities participating in the event. A representative from the committee, the School Headmaster and the JICA representative delivered their

speeches during the ceremony.

Ten students volunteered to work on the TSC student corner and 10 local residents volunteered to serve as crossing guards at Ghe Intersection during the conduct of the pilot project.

Figure 2.3.1 Opening Ceremony



Source: JICA Study Team

Quiz Time (in cooperation with the Local Traffic Police): There were 15 questions for the quiz time provided by the local traffic police. The students attentively listened to the questions and responded well. Most students enjoyed participating in this activity as it was the first time to have such program activity in school where winners were awarded with prizes.

Risk Behavior Demonstration: In cooperation with the local traffic police and upon advice from the JICA Study Team, selected students were asked to dramatize situations that exhibit high risk taking behavior that receives positive attention from other students.

TSC Student Activity Corner: Volunteer students promoted TSC through question and answer activities with other students conducted in the activity corner. In addition, information materials related to traffic safety education such as reading materials and other toolkits to raise awareness among students were made available to the students. More than 100 students and other interested people visited the activity corner.

Figure 2.3.2 Risk Behavior Demonstration **Figure 2.3.3 TSC Student Activity Corner**



Source: JICA Study Team



Communication and Information Tools: On the activity targeting student, the following tools were conducted to promote traffic safety awareness and proper behaviors.

Traffic rules and regulations including traffic signs, risk behaviors, and traffic quizzes were provided for traffic safety education which published in the leaflet.

Figure 2.3.4 Communication and Information Tools for Students



Source: JICA Study Team

Expected Outcome from the Activity

- (i) Students will be provided opportunity for practical learning outside the classrooms through actual performance and experience of traffic safety activities.
- (ii) Students can express their opinions and participate in the demonstration activity which will highly likely heighten their awareness and appreciation for road traffic safety.
- (iii) Teachers will gain more practical knowledge and experiences via TSC activity on campus which could be adapted to and applied when teaching their subjects.
- (iv) The activity itself presents the practical messages that traffic safety education will be successful only through an effective cooperation and coordination mechanism among concerned agencies. The activity is therefore expected to have significant influences over the local authorities, residents, other neighboring cities in the future.

3) Safety Patrol Volunteer Program

Improvement of Traffic Facilities of Ghe Intersection: Based on observations made before the conduct of the pilot project, the following facilities that are indispensable to traffic safety were improved in cooperation with related agencies.

- (i) Operation of Traffic Signal
- (ii) Setup of adequate traffic sign and zebra crossing (paint marking)

Safety Patrol Volunteer Program: Traffic signal was operated during school peak hours: 06:30-07:30 and 17:00-18:00.

In cooperation with DOT for the traffic signal operation and local traffic police for enforcement and guidance to local volunteer crossing guards, the pedestrians and other local road users felt more confident in using the road at Ghe intersection.

Figure 2.3.5 Safety Patrol Volunteer Program



Source: JICA Study Team

4) Expected Outcomes from the Activity

- (i) Pedestrians and other vulnerable road users will feel more safe and confident in crossing the roads in the presence of safety patrol activist.
- (ii) Pedestrian accidents are expected to be reduced during the implementing period.
- (iii) The safety patrol activity will play a great role in making a significant impact on the quality of life of people in Cam Giang.
- (iv) The safety patrol activity will play an important role in influencing local decision makers to introduce similar activities to their administrative cities.

2.4 Evaluation of Pilot Project

The traffic safety culture activities have various types of community-based activities depending on region and target group. It is important that each community understand the objective and goal of the activity and continues to implement the activity until the safety behavioral habit is acquired. PTSC, under the supervision of the NTSC, has to provide instructions and adequate guidance to the local people who conduct the community activities. An evaluation process for each conducted activity shall be requested. For this pilot project, NTSC and the JICA Study Team had conducted the evaluation of the pilot activities. Although there was no standardized evaluation method adopted since there were various programs conducted as previously discussed, evaluation results were considered to be valuable inputs for further activities.

1) Lessons Learned from the Pilot Project

(i) Difficulties and Limitations

- (1) Local authority from different organizations and fields still have limited knowledge and experience on how to effectively cooperate and coordinate as a team. This led to some delay and uncertainty on which agency should be the focal point to implement the pilot project. This was further constrained by the limited time to conduct the pilot project.
- (2) Period of traffic signal operation was very limited only to a certain given time.

(ii) Cooperation among Concerned Agencies

The school and people at grass root level, the local residents in particular were willing to learn, cooperate and participate in the activity so long as there was a top-down command while the local authorities were hesitant to get involved (even if it was in line with their responsibility.)

(iii) Level of Communication among Concerned Agencies

Local authorities still rely on a written document/letter for one-way communication (rather than face-to-face communication) leading to delay in the process.

(iv) Identification of Key Agency to Implement the Pilot Project

Local peoples' committee in cooperation and coordination with local authority and transportation agencies concerned, the traffic police in particular, should be the key agency to propose and implement the project.

(v) Possibility for Project Sustainability

- (1) In terms of budget, the school believes that they can secure sponsorships from the local companies in the industrial zone in Cam Giang District. However, it would be very helpful and but appropriate for the central government or for an international donor to make representations to the companies on behalf of the district.
- (2) In terms of making the project sustainable, the school believes that technical transfer assistance for building capacity of their teachers, students and local residents on how to effectively think and work together is needed. In addition, a strong support from the central and local governments will be necessary to ensure project sustainability.

2) School and Residents Perspectives¹

(i) School's Perspective

- (1) A total of 95% of students consider the quiz time and risk behavior demonstrations of TSC student activity corner to be very useful.
- (2) A total of 90% of students consider the provision of TSC toolkits as a good incentive. However, they also believe that contents should vary depending on the activity.
- (3) TSC student activity corner was successful in improving student's awareness as most students keep updating the information on traffic safety and discuss among each other.
- (4) Traffic safety patrol at Ghe Intersection was very interested and helpful and expressed desire to remain in the activity.
- (5) The remaining issue after the pilot project is the land acquisition of the retail shop that obstructs the passage to school at Ghe intersection.
- (6) The pilot project is generally regarded as successful and is expected to be

¹ The survey has collected responses from 40 residents and 40 school officials and staff.

continued.

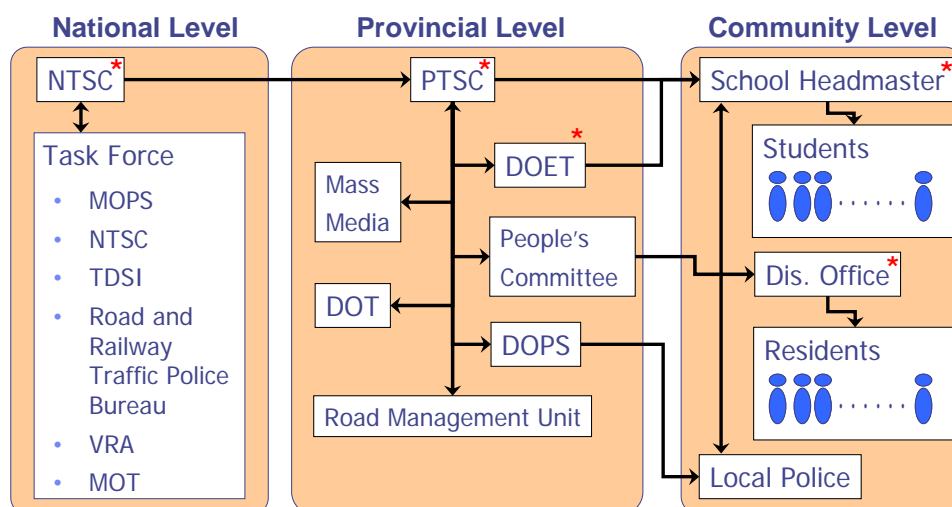
(ii) Residents' Perspective

- (1) Period for traffic signal operation was too limited to only a certain given time.
- (2) A total of 60% of residents consider traffic signal operation at Ghe intersection was effective while 40% consider its operation not effective since it was not fully operated during the entire day.
- (3) A total of 95% of residents think that the traffic safety patrol activity brought about considerable changes while 5% perceive the traffic safety patrol volunteers as having negative attitude and are impolite.
- (4) There are still some issues that remain such as local residents' still low level of awareness; limited operation of traffic signal; the relatively far distance of students' residents from school; and the project's limited implementation only at Ghe intersection.
- (5) A total of 95% of residents regard the pilot project to be successful and therefore should be continued. It was recommended that for the school, there should be more Q&A shows with broader, longer and more frequent activities; more enhancement on traffic safety education in schools and communities.
- (6) There should be black spot identification project at schools nationwide.
- (7) There should be the sharing of experiences with foreign countries.

3) Clarification of Key Roles of Coordinating Organizations

To ensure effective implementation, it is necessary for concerned organizations to coordinate with each other to collectively promote and implement traffic safety culture activities. Figure 2.4.1 illustrates the proposed coordination mechanism. In addition, the general public should be organized for traffic safety culture activities, with NTSC as the lead organization.

Figure 2.4.1 Coordinating Organizations for Traffic Safety Culture Activities



* : Core Agency

Source: JICA Study Team

Table 2.4.1 lists the following key roles that will be indispensable to ensure sustainable implementation of traffic safety culture activities such as safe school zone focusing on safe route to school implemented during the pilot project.

Table 2.4.1 Clarification of Key Roles of Coordinating Organizations

Key Player	Activity	Responsibility
PTSC	Overall coordination	NTSC
School	Safety instruction to student	DOET
Traffic Police	Instruction & Enforcement at site	DOPS
DOPS	Traffic Signal Operation	VRA, DOPS
People's Committee (Propaganda committee)	PR activity	People's Committee (Propaganda committee)
District Office & local residents	Coordination with local residents, activity by local volunteers	District Office (Traffic Safety Committee)

Source: JICA Study Team

2.5 Conclusions and Recommendations

1) Conclusions

The conduct of the pilot project can be concluded as follows:

- (i) The implementation of traffic safety culture activity on Safe Route-to-School Program was relatively successful in terms of (1) encouraging local participation; (2) raising awareness on traffic safety, and (3) promoting traffic safety education and traffic safety culture activity in the school and the local community of Tan Truong Commune, Cam Giang District, Hai Duong Province.
- (ii) An introduction of traffic safety culture development through a pilot project activity presents an opportunity for capacity building and human resources development not only at the central and local government agencies but also in the school, community and people at grass root levels.
- (iii) The most important outcome of the pilot project implementation is that it helped in identifying the key coordinating organizations that play a key role in implementing the traffic safety culture activity in the provincial area/school along the national highways, which is the Local People's Committee. However, it was also established that it should work in close cooperation and coordination with other concerned local authorities, transportation agencies and traffic police in particular to ensure its successful implementation.
- (iv) This pilot project was implemented as part of the capacity strengthening needed in NTSC to implement the traffic safety project proposed in the Master Plan. NTSC was able to undergo various processes of community-based activities on "Participation, Experience and Implementation" through this pilot project, which is expected to become very useful in its future undertakings which are expected to expand nationwide.

2) Recommendations

The traffic safety culture activity has taken on various types of activities that respond to respective social economic situations in each region. However, the organization which

is in-charge of directing and supervising the implementation as well as in preparing the action plan has not developed. In particular, it is necessary to promote the activity in coordination with World Bank's Vietnam Road Safety Project (VRSP) or JICA's Northern Vietnam National Roads Traffic Safety Improvement Project to establish suitable organization in each region through the following:

- (i) Formulation of action programs under the leadership of NTSC.
- (ii) Establishment of the taskforce team headed by PTSC. The taskforce team shall undergo training in project implementation and to improve monitoring capability.
- (iii) NTSC monitors the activity and establishes a system and organization to develop as a social habit.
- (iv) Based on the results of the pilot project, strict enforcement by traffic police and improvement of engineering will be required at black spot. The coordination should develop between road administrative office and traffic police.

3 TRAFFIC SAFETY FOUNDATION

3.1 Objective of the Foundation

The recently concluded "Study on the National Road Traffic Safety Master Plan in the Socialist Republic of Vietnam until 2020" (hereinafter referred to as the Master Plan) has indicated Traffic Safety Culture as one of the very important issues to address to achieve its proposed mission of achieving "a kindhearted traffic accident-free society." This is based on the fact that one of the major causes of traffic accidents in Vietnam is human error, thus changing of road user behavior is indicated to be a priority strategy of the Master Plan.

The Master Plan has expressed the main objective of the Traffic Safety Foundation (hereinafter referred to as the Foundation) as "aimed at introducing new policies and practices on safety culture to the Vietnamese communities."

Moreover, in particular, the Foundation is envisioned to:

- (i) Awaken the public concern for traffic safety culture;
- (ii) Support communities and various groups towards traffic safety culture development at their levels;
- (iii) Provide capacity building for key persons such as a community leaders, professional drivers and relevant officers; and
- (iv) Develop and set-up a fund mechanism wherein financial resources generated either from Government allocations, private contributions and even revenues from its activities will be managed to ensure sustainability of traffic safety activities in Vietnam

3.2 Role of the Foundation

The basic role of the foundation is to stimulate the social concern for traffic safety and to support actual traffic safety activities executed by local communities, schools, government, private companies. Most of the role of the foundation is supposed to assist

the programs under the initiative of local authorities as well as the state government, however, at the initial stage the foundation so far needs to take an initiative and to promote the program by implementing the pilot projects as the model for various regions.

3.3 Establishment of the Foundation

1) Basic Policy

The following core criteria that need to be assured and satisfied for setting up the Fund are as follows:

- (i) Legality of establishment and operation of the Fund must be assured and guaranteed.
- (ii) The selected form of the Fund must be appropriate to goals, missions and activities of a traffic safety fund, whose operations shall mainly serve for public benefits and for nonprofit purposes.
- (iii) The scope of operation of the Fund must be appropriate to comprehensive traffic safety framework in Vietnam.
- (iv) The operation and development of the Fund must be sustainable, effective and transparent (availability of sources of funds, effectively operating for a period of time, with good programs, etc).
- (v) The Fund would be open and attracting attention, participation, support, and contributions from individuals, organizations, relevant agencies, communities at home and abroad, both in terms of initiatives, programs and finance;
- (vi) Private sector's participation and social responsibility would be promoted during and through the operation of the Fund.

2) Comparative Assessment of Various Types of Foundation

In light of Vietnamese laws and practice, four alternative types of foundations are hereby considered for the setting up of the Traffic Safety Foundation: (i) Governmental Fund; (ii) Charitable Fund; (iii) Local Association; and (iv) Association of Foreign Businesses.

Table 3.3.1 shows a comparative assessment of these various types of funds based on legality, capital resources, organization, operations, and finally, appropriateness to the proposed Traffic Safety Foundation. And among these four alternative types of foundations, the governmental fund and charitable fund ranked highest in the evaluation. However, the charitable fund's more open nature shall provide access for various sectors of the society to be involved in traffic safety activities while lessening financial burden on the government. On the other hand, its weak point of being a charitable fund which leads to sustainability issues can be strengthened with adequate support from the government and the general society.

Therefore, it is recommended that the Foundation be established as a charitable fund.

Table 3.3.1 Comparative Assessment of Alternative Types of Foundations

	Legal Basis	Sources of Capital	Organization	Core Operations	Appropriateness for Traffic Safety Foundation
Governmental Fund	No law but pursuant to specific Decisions	<ul style="list-style-type: none"> · State budget · Environmental charges, fees, fines · Donors 	All key positions assigned to Government officials	Acts as an arm of the Government to implement specialized tasks and activities	Appropriate
Charitable Fund	Decree No. 148 Circular No. 09	<ul style="list-style-type: none"> · Founding members · Membership fees · Donors · State budget allocation (may be in special cases) 	<ul style="list-style-type: none"> · Key positions assigned to Vietnamese citizens · A foreign national may be elected an honorary chairman 	Promotes development of culture, education, healthcare, physical training, sports and science, charity, and humanitarian purposes, as well as community development purposes operating on a non-profit basis	Appropriate
Local Association	Decree No. 88 Circular No. 01	<ul style="list-style-type: none"> · Founding members · Membership fees · Donors · State budget allocation (in certain designated projects) 	Not provided by law	Protects members' legitimate rights and interests	Not appropriate
Association for Foreign Businesses	Decree No. 08	<ul style="list-style-type: none"> · Founding members · Membership fees · Donors 	Not provided by law	Promotes members' business operations	Not appropriate

3.4 Conditions for and Characteristics of a Charitable Fund

The proposed Traffic Safety Foundation, as a charitable institution, needs to conform to Decree No.148/2007/ND-CP of the Government dated 25 September 2007 on the organization and operation of social and charity funds in Vietnam, as well as other related regulations. In addition, as a charitable fund, it should comply with the following:

- To be a non-governmental organization and to be established by competent state authority
- It should serve the interest of science, charity and humanitarian purposes as well as community development purposes.

1) Conditions for Establishment

- Foreign individuals and organizations may contribute their capital/property with Vietnamese individuals or organizations to establish a fund in Vietnam.
- Has operation purposes in conformity with Decree No.148.
- Has written commitments on the contribution of initial minimum capital/property from its founding members.

Minimum Capital for a charitable fund with nationwide operation: VND 10,000,000,000 (Ten Billion Vietnamese Dong).

2) Organization and Management

Organization and management structure of the Charitable Fund includes:

- Fund Management Council: Has detailed tasks and powers as provided by law; has at least 3 members appointed by the founding members: chairman, vice chairman and member(s). The term of office of the Council shall not exceed five years
- Fund Director: The Director is legal representative of the Charitable Fund and bears responsibility for all activities of the Charitable Fund.
- Fund Control Board: The Control Board operates independently and has the following tasks:
 - (i) To inspect and supervise the operation of the Charitable Fund in accordance with the charter of the Charitable Fund and legal regulations.
 - (ii) To report and propose to the Fund Management Council on inspection and supervision results and the financial status of the Charitable Fund.

3.5 Traffic Safety Foundation Programs and Activities

1) Enhancement of Peoples' Knowledge and Consciousness

- Development and periodic publication of Traffic Safety Pocketbook (probably every 3 to 5 years).
- Conduct of seminars and workshops in selected pilot communities.
- Providing technical support by assisting in development of seminar/workshop formats and methodologies, dispatching of experts and providing necessary materials for implementation.
- Development of manuals, posters, leaflets, audio-visual/video-clip presentations (AVPs), website, etc.
- Distribution of materials nationwide upon request.

2) Human Resource Development

- Development of educational manuals, pocketbooks, video, etc
- Assists local authorities in organizing and hosting seminars and workshops through program preparation, provision of necessary materials as well as equipment such as riding simulator, and dispatch of experts and instructors.
- Conduct of traffic safety training seminars for professional drivers and teachers in driving schools.

3) Enhancement of Community Involvement/Participation for Network Development

- Assists local authorities in organizing and hosting workshop-cum- training on how to make their community a safe place to live in. Assistance will be in the form of expert advice on how to organize and conduct the workshop-cum-training, distribution of traffic safety education manuals and pocketbooks, and dispatch of experts or instructors.

- Develops model for a “Traffic Safety Culture Club” and transfers know-how to members of local communities.

4) Consensus- and Trust-Building in Community by Prioritizing Safe Community and Safer Road User Issues

- Conducts study on the development of a series of traffic safety episodes to raise public participation activities and materializes them for mass media.
- Assists the local authorities in the conduct of workshop through design of how to conduct a workshop for motorcyclists, bus drivers and pedestrian guidance, provides necessary training materials, and dispatch of instructors.

5) Development/Improvement of Traffic Safety Standard

- Content development for public relation programs, supports local authorities in the conduct of seminars, provides program contents, and dispatch of experts.
- Assists the public in launching of these competitions in cooperation with local media through dispatch of experts and/or instructors and providing a technical know-how of the program.

6) Development and Enhancement of Collaboration and Responsibility for Action among all Stakeholders

- Takes initiative in conduct of parades on major highways in cooperation with MOPS, MOT and the private sector.
- Launch of a campaign on driver competition from the perspectives of safe driving skills and behavior.
- Periodic hosting of the fair/exposition wherein the public sector presents traffic safety issues and the private sector presents their related materials as well as services.
- Assists local stakeholders hosting the forum through provision of technical inputs on how to conduct the forum and through dispatch of experts.

7) Expenditure and Revenue of Activities

The Foundation is projected to face a deficit of USD 11.92 Million, or an annual average of USD 2.38 Million annually, during the 5-year implementation period.

For the Foundation to achieve a balanced cash flow, it is therefore imperative that more profitable activities be introduced, or subsidies from the government be proposed particularly for activities without any revenue. Otherwise, the Foundation may need to reduce the planned activities according to its financial capability.

3.6 Financial Structure of Foundation

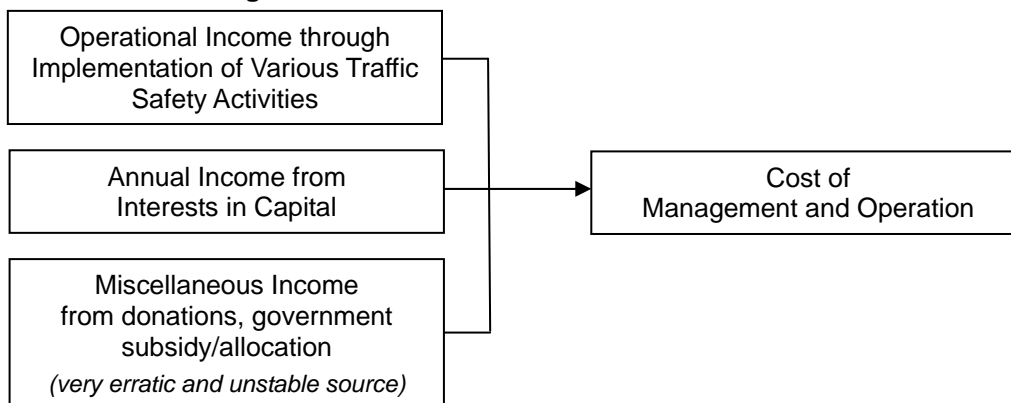
1) Basic Structure

While Decree 148 (No.177/1999/ND-CP) indicates that the fund is set up and operated for non-profit purposes, this doesn't however restrict the Foundation from recovering costs or if at all possible, generating revenues from its activities. For without profit or

revenues, the Foundation will not be sustainable due to the limited source of funding for its activities.

Figure 3.6.1 shows the envisioned cash flow process of the Foundation.

Figure 3.6.1 Cash Flow Process of the Foundation



Source: JICA Study Team.

2) Charter Capital

Donor

- (i) Industries: manufacturers of motorcycles, automobiles, and other related products and accessories (e.g. tires, traffic safety goods, etc); none life and life insurance companies; transportation companies of cargo and passenger
- (ii) Public Sector: Grant or loan from the government and ODA

Required Amount of Capital

Provided that all of the maintenance cost can be covered by interest payments from capital management, the required amount for the Foundation's capital will be about USD 33 Million (around VND 57 Billion).

3) Operation Revenue

Government Activities and Foundation Activities

It is sometimes more beneficial for the public for an activity to be implemented by a Foundation on behalf of the government since this results in better quality of service and higher efficiency. Thus, the following should be clarified:

- (i) Existing government services or activities that may be transferred to the Foundation
- (ii) New activities started by the Foundation which can generate income/revenues
- (iii) Possible Government support (regulations, subsidies, etc)

Chargeable Activities

With sustainability of Foundation's operations as the end in view, the following are some examples of chargeable activities that may be conducted:

- (i) Promotion and management of campaign as award for excellent driver
 - Donation from private sector
- (ii) Provision of traffic safety information

- Development and publication of traffic safety materials
- (iii) Support for the improvement of driving education
 - Training fees from teachers of driving schools
- (iv) Training of professional drivers and high accident-risk drivers
 - Training fees from driver trainees

4) Involvement of Government

Government's support to the Foundation's operations may be classified into: (i) Commission of government services; (ii) Subsidies for Foundation activities; (iii) Loan with low or no interest; and (iv) Donation.

3.7 Conclusions and Recommendations

1) Conclusions

Regarding the Traffic Safety Foundation, alternative organizational establishments were discussed and the Charitable Foundation was found to be the most appropriate over other organizational structures such as Governmental Fund, Local Association, and Association of Foreign Business in terms of capability and social acceptability. This additional technical assistance has further confirmed the role and importance of a traffic safety fund in the NTSC and related organizations, which can contribute to the capacity development of NTSC aimed at the development of a new system.

Traffic safety foundation is useful not only for traffic safety culture development activities, especially community-based activities related to traffic safety, but also in human resource development and formulation of the action program. However, since private contribution may vary from time to time depending on the economic situation, it may be difficult to secure sufficient funding for programs and activities at times such as during this time of the current global economic recession. Therefore, in order to ensure sustainable fund resource, self-financing mechanisms will be needed with governmental support.

2) Recommendations

The Traffic Safety Foundation should be established the soonest possible time to promote sustainable community-based traffic safety program. Main objective of the urgent establishment is not only to ensure fund sourcing but also to formulate core organization with sufficient knowledge, skills and strong leadership.

The Traffic Safety Foundation will be a charitable fund; however, full operation as a charitable fund may have to wait until automobile sector is matured enough to share the cost among other sectors. Until then, several forms of government support will be required to generate new resources of fund from fees or charges or business activities.

It is also recommended that the Foundation be established under the VRSP or JICA Northern Region Safety Projects as a government subsidiary organization. The project will be aimed at the establishment of an appropriate system and capacity development on the operation to ensure independence and sustainability by the end of the loan projects. NTSC initiatives will be based on the results of examination on this additional technical assistance.