

Draft
NATIONAL STRATEGY
FOR ENVIRONMENTALLY SUSTAINABLE
TRANSPORT DEVELOPMENT UNTIL 2020

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III EST Forum, Singapore, March 2008

Process of building EST Strategy

1. EST Project started in 2004 with support from UNCRD
2. Inception Workshop organized in Sep 2004
3. Set up Focal point – DOE, MONRE and working group.
4. Signing Grant Agreement between DOE, MONRE and UNDESA in Dec 2006
5. Identifying the Collaboration Center – the Institute of Strategy and Policy on Natural Resources and Environment – ISPONRE, signing contract in Dec 2006.
6. Start Drafting the Strategy from Jan-Sep 2007
7. Organize the 1st national workshop on the First Draft of the Strategy in Oct 2007.

Draft of EST Strategy

1. Introduction
2. Situation and Challenges
3. EST Strategies
4. Implementation

1. Introduction

2. Situation and Challenges

3. EST Strategies

4. Implementation

General Information

- **Viet Nam is a country with transport system underdeveloped. Transport infrastructure is still very poor.**
- **Pollution is increasing caused by increase of number of vehicles: 20mil. motorbikes, 600.000 automobiles.**
- **Traffic accidents is the most severe issue: 35-40 people dye, hundred wounded every day.**
- **Vehicles are mainly motorbikes, few cars and bus. There is no metro. HCM city just started tube project.**

Scope of the Strategy

- The Strategy is parallel with and supportive to Vietnam's National Strategy for Transport Development until 2020 in order to achieve sustainable development of transport to serve socio-economic development and contribute to the sustainable development of the country.
- The focus of EST is in the field of road transport, which exerts the biggest impacts on the sustainable development of all other sub-sectors such as railway, airway or maritime transport. Therefore, the Strategy will focus only on different aspects of road transport.

1. Introduction

2. Situation and Challenges

3. EST Strategies

4. Implementation plan

Situation and Issues of EST

The Strategy provides detailed analyses the situation of 10 aspects of EST in Viet Nam:

1. Air Pollution, Noise Pollution and Health
2. Roadside Air Quality Monitoring
3. Control of Emissions from Transport
4. Inspection and Maintenance of Vehicles (I/M)
5. Fuel Quality Management
6. Planning and Managing Travel Demands
7. Development of Transport Infrastructure and Road Maintenance
8. Traffic Safety
9. Social Equity in Transport
10. Information, Knowledge and Public Awareness

Challenges to EST in Viet Nam

1. Significant increase in the number of personal means of transport (mainly motorbikes) causes environmental pollution and road accidents while public transport develops slowly.
2. Poor transport infrastructure does not meet the demand and does not guarantee social equity in transport.
3. Knowledge and awareness of the society of environmentally sustainable transport is limited.
4. Solutions to environmental management in transport such as monitoring, vehicle emission control, fuel management, inspection, and maintenance are not good enough.
5. Road accidents are at high level and cause substantial socio-economic damage .
6. Planning and development of transport raise a lot of problems in environmental protection and biodiversity preservation

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Viewpoints of the Strategy

- a) Transport should ensure the promotion of socio-economic development, simultaneously meeting environmental targets, the focus of which is on the development of environment-friendly transport.
- b) Vietnam's EST Strategy should be in accordance with National Strategy for Transportation to 2020, National Strategy for Environmental Protection to 2010 and its orientation to 2020 and The Orientation of Vietnam's Strategy for Sustainable Development to 2020.
- c) Advantages of the geographical location and national conditions should be brought into full play to develop a modern, suitable, complete and effective transportation network
- d) Steps should be taken in the use of modern technology in EST, the minimization of transportation costs, social costs, making it friendly to the environment.
- e) Strict co-ordination should be ensured between the construction and completion of the targets in strategies for transport development with relevant sectoral planning
- f) Sufficient investment should be put in the infrastructure construction for the protection of transport environment,
- g) The mechanism of environmental accounting in the sector should be gradually created on the basis of synchronous calculation of compensation costs for polluting activities from different sources and should be applied to different motorized means of transport.

Objectives of the Strategy

Overall Goal

- Ensuring the sustainable development of the transportation sector in order to meet the demands for socio-economic development, simultaneously meeting the targets of environmental protection, contributing to the nation's sustainable development, and enhancing the quality of people's life.

Specific Objectives

- Construct an environmentally sustainable transportation system which meets people's demands for safe transport, ensures people's health and social equity, simultaneously keeping emission within the assimilative limit of the environment, limiting the consumption of non-renewable resources, using land economically without influencing the ecological system.

Specific Targets of the Strategy (1)

Efforts should be made to meet the following targets by 2020:

a) Minimizing emission from vehicles:

- Reducing 30% of CO₂ compared with 2005.
- Reducing air pollutant emission (SO₂, NO_x, PM, VOC), namely:
 - i) reducing 80% of PM compared with 2005 in Hochiminh City and Hanoi
 - ii) reducing 50% of SO₂, NO_x, VOC compared with 2005 in Hanoi and Hochiminh City.
- Applying the standard of emission from vehicles according to the following roadmap:
 - Euro-2: 2007; Euro-3: 2009; Euro-4: 2012
- Reducing 20% of the noise volume from transport in urban areas to 65dB compared with 2005.

b) Fuels for vehicles:

- The proportion of clean fuel is 10% of the total fuel used.

c) Vehicle tests and service:

- Examine 95% of new motorized vehicles and 100% of currently used motorized vehicles

Specific Targets of the Strategy (2)

d) Monitoring air quality:

- Creating a network of air quality monitoring stations in cities of Grades I and II.

e) Transport safety:

- Reducing 30-35% of the number of deaths and injuries compared with 2005.
- The proportion of death toll in transport accidents/100,000 is about 8.3-9.6
- The proportion of death toll in transport accidents/10,000 vehicles is about 2.3-2.8

f) Management of transport development

- The proportion of public transport users in big cities is 50%.
- The proportion of non-motorized transport users is 10%.
- The proportion of asphalted motorways and provincial roads is 100% by 2010; by 2020 the system of district roads will have been basically upgraded
- The capital for repair and maintenance of the road network should meet 80% of the requirement by 2020.

g) Land use

- Ensuring that the amount of land reserved for urban transport accounts for 15%-25% of the total urban area, including stationary and dynamic transport.

Major tasks of the Strategy (1)

1. Monitoring roadside air quality

a) Repairing, upgrading existing monitoring stations

- The quality of the roadside air quality monitoring system should be improved through the use of portable equipment, the increase in annual monitoring frequency, in daily monitoring hours (both day and night), and in the number of measuring points in each city.

b) Investing in the construction of new roadside monitoring stations

- In Ho Chi Minh city, where there is already a complete automatic roadside air monitoring system, it is only necessary to invest in good repair and maintenance work. But it is important to invest in the construction of an automatic roadside air quality monitoring system in special cities (Hanoi) and cities of Grade I (Hai Phong, Da Nang, Hue, Can Tho), and gradually in cities of Grade II with 3-4 stations in each city.

Major tasks of the Strategy (2)

2. Control Emission From Vehicles

a) Develop and promulgate regulations on emission control

- Regulations and standards of emission should be immediately completed and quickly applied in accordance with European standard Euro.
- The system of legal documents, including those about priorities, prices, taxes, insurance, should be developed.

b) Assisting the discarding and replacement of old vehicles

- Supportive funds should be created to boost up the discarding of old vehicles; suitable policies should be provided for the regulation of the import of secondhand vehicles.

c) Intensifying the control and monitoring of gas emission on roads

- Programs monitoring gas emission on roads should be implemented. Periodic checks on roads are practically important in the control over sooth emission because of its visibility.

d) IEC for awareness raising

- There should be thorough IEC campaigns on mass media. IEC funding can be mobilized from automobile and motorcycle manufacturers and petroleum companies; guidebooks about servicing automobile engines should be issued and provided free of charge.

Major tasks of the Strategy (3)

3. Inspection and Maintenance (I/M)

a) *Completing policies and regulations*

- Regulations on compulsory periodic servicing for motorized vehicles need to be developed
- Upgrade and systemize vehicle test/register procedures with a special emphasis on register frequency. Standards of service centers should be issued.
- There should be research to promulgate and implement the program for the installation of exhaust filter for gasoline vehicles and sooth filter for diesel ones (Retrofit Program).

b) *Enhancing investment in infrastructure and human resources*

- Investment should be put in the construction of internationally standardized service centers. There should be quality monitoring, periodic tests and evaluation to identify remaining problems and suggest solutions to service centers.
- Training on requirements of I/M programs should be compulsory for register staff and mechanics.

c) *Enhancing awareness and sharing information*

- There should be promotion programs to inform the public of potential benefits of I/M program for public health. There should be online systemized data of motorized vehicles to provide information for register and service centers.

Major tasks of the Strategy (4)

4. Managing Fuel Quality

a) *Solutions in terms of policies and regulations*

- Develop The Fuel Strategy for Vietnam until 2025
- Policies on clean fuels should be associated with standards of new technology for means of transport, and policies affecting fuels and new technology for means of transport need to be consistently developed.
- Subsidies for fuels that generate too much emission should be abolished and tax policies should be applied to encourage the use of clean fuels.

b) *Technical Solutions*

- The development of alternative fuels can be beneficial in terms of emission and also helps diversify and master fuel provisions.
- Complete elimination of lead, even other metals, followed by the control over benzene, aromatic matters and gaseous pressure; the level of sulphur must be reduced to 500ppm and lower (300, 150, 50ppm) along with the roadmap for Euro2-5 standard.
- Fuel quality standards should be technically suitable with engine producing technology in the emission reduction roadmap. As for 2-wheeled vehicles, it is necessary for Vietnam to have a suitable fuel standard for Retrofit program for catalytic converter installation.

Major tasks of the Strategy (5)

5. Transport Planning And Transport Demand Control

a) *Developing public transport network*

- Raise the number of buses and service quality;
- research should be boosted up; urban railway network, such as mass rapid transit and iron-wheeled vehicles, will be constructed. Urban public transport network should meet at least 50% of people's travel demand.

b) *Restricting and controlling the increase in private means of transport*

- Economic and administrative measures are to be applied to reduce the number of motorbikes and private cars. Limitation roadmap is to be made public. Policies on controlling the growth of private means of transport are implemented through regulatory and legal enactments as well as such economic policies as taxes and fees.

c) *Planning and managing transport*

- There should be good lane and route divisions on roads,
- Investment should be put in the upgrading and development of urban transport infrastructure in terms of road quality, road width, the proportion of road length to urban area, the proportion of transport area to the total urban area, multi-levelled junctions, over/underpasses, etc.

Major tasks of the Strategy (6)

6. Development Of Transport Infrastructure And Road Maintenance

a) *Investing in the development of road transport infrastructure*

- The focus should be on speedy construction of centripetal roads, ring roads, metropolitan axes, multi-level passes at intersections; priorities should be given to the construction of mass transport system such as trams, elevated rail, undergrounds in big cities in order to reduce pressure on road transport in Hanoi and HCM City.
- There should be solutions to build noise-killing walls to reduce the noise level in roadside residential areas in cities.
- Resettlement activities in road construction projects should be carried out and completed before site clearance for the construction.

b) *Seriously implementing requirements for environmental protection in transport infrastructure construction*

- Environmental management planning for road projects prior to construction should include a legal framework for environmental protection to control the implementation of environment protecting measures stated in EIA.

c) *Mobilizing resources for road transport maintenance*

- Capital should be allocated to activities solving environmental pollution problems in road construction projects, to the investment in machines and equipment to serve the work of environment inspection and monitoring.
- Socialization of road management and maintenance; “Road maintenance fund” should be established soon.

Major tasks of the Strategy (7)

7. Transport Safety

- a) *Improving state management effectiveness*
- b) *Raising safety effectiveness of transport infrastructure*
- c) *Enhancing vehicle control*
- d) *Strictly managing the work of training, granting driving licenses; managing drivers*
- e) *Boosting up transport exploitation and organization*
- f) *Strengthening law enforcement*
- g) *Boosting up propaganda and education about laws on transport order and safety*
- h) *Boosting up education of transport safety at schools*

Minimizing damages caused by transport accidents

- the regulation is applied in all national motorways from 15 September 2007 and in all roads and streets from 15 December 2007. Agencies, organizations and institutions should monitor this and should not allow their staff to ride motorbikes without helmets.

Major tasks of the Strategy (8)

8. Equity And Gender In Transport

- a) *Mainstreaming equity and gender in transport policies and institutions*
 - Equity, gender and poverty reduction are to be mainstreamed in transport policies to allow access to infrastructure and transport services for the poor, the disabled, children and women.
- b) *Boosting up development of transport infrastructure*
 - Investment should be put in upgrading, designing and constructing infrastructure (roads, stops, stations, parking areas, etc.) and public transport;
- c) *Raising community awareness*
 - There should be IEC programs to enhance community awareness of equitable transport system in the society, of their responsibilities and duties to help more disadvantaged people in the society.

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Solutions To Implement the Strategy

1. Completing The System Of Policies And Laws On Environmental Protection In Transport
2. Enhancing State Management Of Environmental Protection In Transport
3. Enhancing Investment In Environmental Protection Activities In Transport
4. Enhancing Capacity And Awareness Of Environmentally Sustainable Transport
5. Boosting Up The Application Of Modern Technology In Transport
6. Enhancing International Co-Operation In Environmentally Sustainable Transport

Priority Programs and Projects to Implement The Strategy

#	Programs	Level of priority	Completion Time	Implementing agency
1	<i>Controlling emission from vehicles</i>			
1.1.	Research program for comprehensive assessment of health impacts and economic damages caused by urban air pollution	high priority	2010	Ministry of Transport as focal point, in collaboration with Ministry of Health and other ministries and industries concerned
1.2.	Program on building the network of air quality monitoring in urban areas	priority	2020	Ministry of Natural Resources and Environment as focal point, in collaboration with other ministries and industries concerned
1.3	Program on controlling emission from vehicles and motorbikes in big cities	high priority	2012	Ministry of Transport as focal point, in collaboration with other ministries, industries and provincial People's Committees concerned
1.4	Program on research and application of technological measures to minimize emission from motorized transport and save fuel	high priority	2012	Ministry of Transport as focal point, in collaboration with other ministries and industries concerned

1.5	Program on research and application of clean fuels in transport	high priority	2015	Ministry of Transport as focal point, in collaboration with other ministries and industries concerned
1.6	Program on research and application of integrated measures to reduce particulate matters in Hanoi and Hochiminh City	high priority	2010	Ministry of Transport as focal point and concerned stakeholders
1.7	Program on investment and construction of register and maintenance centers at international standards in some big cities	priority	2020	Ministry of Transport as focal point, in collaboration with other relevant ministries, industries and provincial People's Committees
1.8	Program on research and application of measures to reduce traffic noise	priority	2015	Ministry of Transport as focal point, in collaboration with other ministries, industries and provincial People's Committee concerned
2	<i>Transport planning and management</i>			
2.1	Project for the construction of mass rapid transport system (elevated rail and underground train) in Hanoi and Hochiminh city	high priority	2012	Provincial People's Committees in Hanoi and Hochiminh City as focal points and relevant stakeholders
2.2	Program on research and application of measures to prevent and minimize the growth of motorbike number	priority	2010	Ministry of Transport as focal point, in collaboration with other ministries, industries and provincial People's Committees concerned

3	<i>Transport safety and social equity</i>			
3.1	Program promoting the implementation of national targets in minimizing road accidents	high priority	2010	National Committee for Transport Safety as focal point and relevant stakeholders
3.2	Program for mandatory use of motorbike helmets on all roads	high priority	2007	National Committee for Transport Safety as focal point and relevant stakeholders
3.3	Program on upgrading transport infrastructure for the old, people with disabilities, children and women	priority	2015	Ministry of Transport as focal point, other ministries and industries and provincial People's Committees concerned
4	<i>Implementation of the solutions of the Strategy</i>			
4.1	Program on building and completing legal documents and standards to promote environmentally sustainable transport	priority	2010	Ministry of Transport as focal point, other ministries and industries concerned
4.2	Program on community education and awareness raising on environmentally sustainable transport	priority	2015	Ministry of Transport as focal point, other ministries and industries concerned
4.3	Program on capacity improvement for transport staff (ability to check, inspect, monitor and assess emission, noise and transport management capacity)	priority	2015	Ministry of Transport as focal point, other ministries and industries concerned
4.4	Program on raising investment funds for transport, funds for road maintenance and funds for environmental protection	priority	2015	Ministry of Transport as focal point, other ministries and industries concerned

Next steps in finalization of the Strategy

- March 2008: Revised Strategy after the 3rd EST forum
- April 2008: Organize National Experts Workshop for comments
- May 2008: Revise the Second Draft, prepare Third Draft
- June 2008: In-house review and consultation with UNCRD experts
- July 2008: Revise the Third Draft, prepare the Final Draft
- August 2008: Final Draft

*Thank you for attention
and comments!*