Climate Change Resilient Development: Action Plan

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Background information

Climate change, its causes, and its effects have been under a considerable amount of scrutiny by the international community. According to the UNDP, Vietnam is one of the most vulnerable countries to the effects of climate change. If sea levels rise by one meter, Vietnam will lose 5% of its land and 11% of the population will be rendered homeless; there will also be a 7% decrease in agricultural production and a 10% decrease in GDP. ICEM studies further found that with a sea level rise of one meter, some 4.3% or 9.200 km of existing national and local roads will be permanently under water, including 574 km of dykes. Almost 90% of the affected road infrastructure is situated in the Mekong Delta region and the majority is in the Soc Trang, Kien Giang, Bac Lieu and Tra Vinh provinces. Climate change is also impacting railways and coastal and fluvial transport. For these reasons, the Vietnam Ministry of Transport issued an Action Plan to Respond to Climate Change for the period of 2011-2015, in order to adopt a National Target Program to Respond to Climate Change (NTP-RCC) and to develop the construction of new forms of sustainable transport.

Quick facts

<table>
<thead>
<tr>
<th>Zone</th>
<th>National Territory</th>
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<tbody>
<tr>
<td>Time Frame</td>
<td>2011 - 2015</td>
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<tr>
<td>Topic</td>
<td>Climate Change, Sustainable Transport</td>
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<tr>
<td>Agency</td>
<td>Vietnam Ministry of Transport</td>
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Policy Details

The Action Plan, approved by Decision No.199/QĐ-BGTVT on the 26th January 2011, has as its main objective the creation of capacity to respond to climate change in order to contribute to sustainable transport development. Specifically, the Action Plan aims to assess the impact level of climate change on roads, railways, inland waterways and on the maritime and aviation sectors, both in terms of infrastructure development and transportation activities. Following this assessment, the objective is to identify suitable adaptation measures for transport construction works so as to minimize damages and ensure the smooth continuation of the various forms of transportation in a safety-conscious manner. Mobilizing international resources to support the application of climate change adaptation solutions, as well as of GHG mitigation measures, is essential in obtaining the expertise and the skills needed to manage the operations run by the agencies and units under the Ministry.

The assessment of the climate change impact on the transport sector is carried out by researching and classifying the various transport sector subfields and their activities by creating scenarios based on sea-level rises calculated by the Ministry of Natural Resources and Environment. Surveying the current ongoing sea-level rise and forecasting the impact of further rises includes considering where it would cause floods and landslides, which in turn would damage transport infrastructure and reduce its load bearing capacity, therefore disrupting transport activities and affecting traffic safety, especially in coastal areas, mountain areas and on the Mekong river delta. Only once this assessment is carried out can responsive solutions be developed and implemented. These solutions include climate change adaptation and GHG mitigation measures in the transport sector activity areas. The way in which the assessment is used is through an integrated Geographic Information System (GIS) database, which provides a specialized standards system that allows the integration of elements of climate change response into the transport infrastructure strategies, plans, and development projects.

Mitigation measures in the transport sector are achieved through the implementation of the Law on Economical and Efficient Use of Energy, which entails applying low-carbon technologies, and developing renewable energy with international financial and technical support. GHG emissions are decreased through the inspection of motor vehicles to control their individual emissions, as well as through the development of mass transit public transport in urban areas. Furthermore, a nation-wide information program for organizations and individuals is created by propagandizing through mass communications and organizing training courses, conferences and seminars on the impacts of climate change and response measures needed in the field of transportation. Such a dissemination of information aims to develop human resources and capacity-building of agencies and units especially under the Ministry of Transport.

In order to promulgate a mechanism in which preferential policies create a legal basis to diversify the transport sector and attract investment, there has to be a major restructuring of the policy-making mechanism. The Ministry of Transport has to mobilize and coordinate experts in association with other ministries, research institutes, and professional associations in order to achieve cooperation and co-management in the formulation and implementation stages of climate change mitigation and adaptation measures. Thus leading to the successful implementation of the Action Plan. Connections with international and regional programs and information exchange will also contribute to the establishment of a bilateral and multilateral partners network in the field of climate change adaptation in the transport sector.

Based on this cooperation network, it will be possible to enlist the help of developed countries and international organizations for capacity building and financial aid by intensifying the inspection, supervision and periodic evaluation of goals,
Vietnam

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tasks, progresses and results of the implementation of climate change adaptation and mitigation projects. Internal financial resources may also be found through the State budget for the national target program of responding to climate change.

Technological research is also sorely needed in order to improve the quality of design, construction, inspection and safety assessment of transport infrastructure with regards to climate change and sea-level rise. Examples of such technology include engineering geological sustainability and slide processing technology, which both ensure the resistance of transport constructions to phenomena of extreme weather and rising sea levels. The GIS database aids in applying scientific and technical advancements to the creation of low-carbon, environmentally friendly technology for vehicles and transport equipments suitable for Vietnam’s geographic conditions. Impacts are assessed, response measures are developed, and the database is managed in order to ensure that Vietnam’s transport sector is on track for successfully countering climate change and connected sea-level rise impacts.

References

