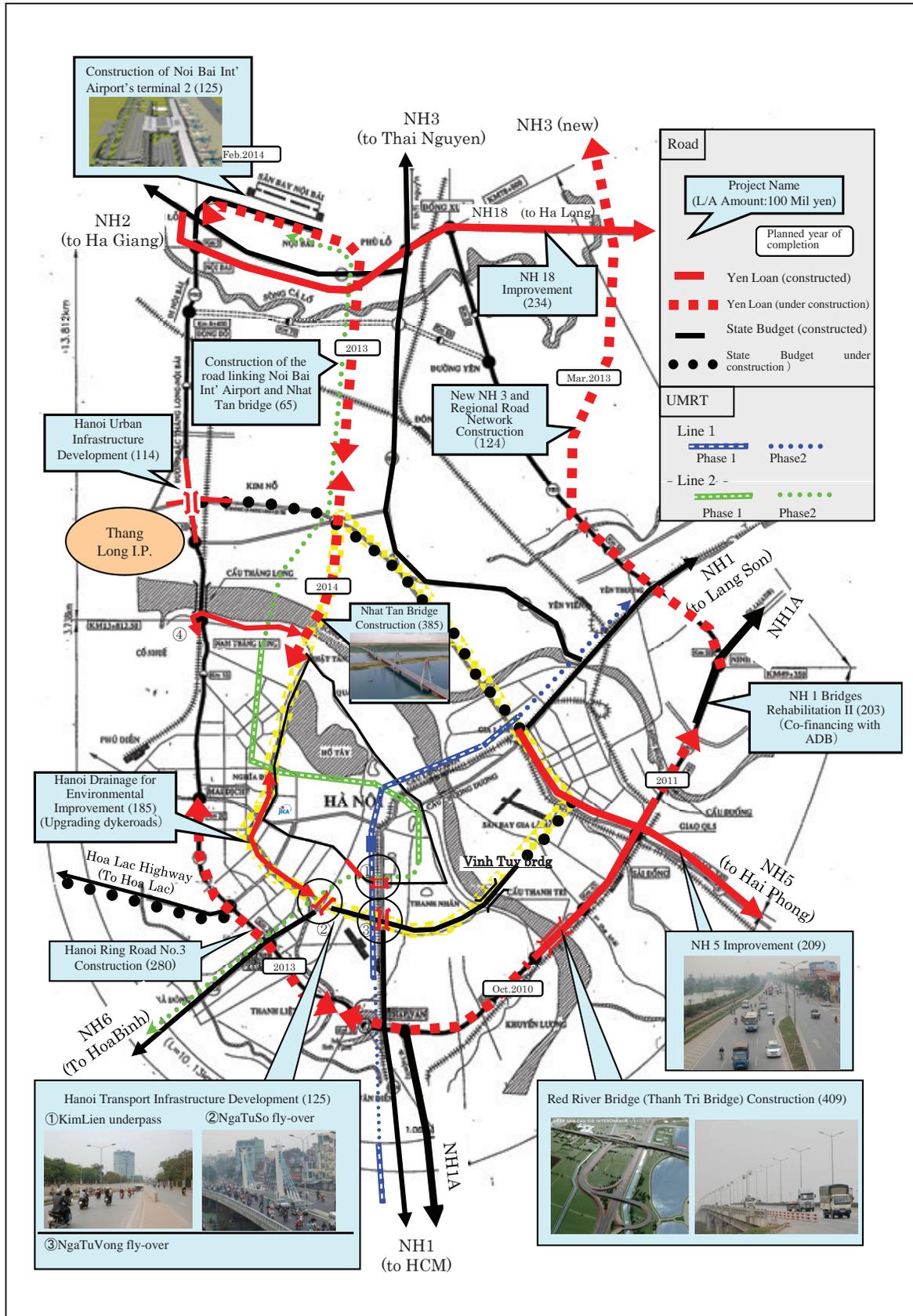


# Transport Infrastructure Network in Hanoi



## Improvement of Transport Infrastructure in the North

The Government of Vietnam has defined the triangle area connecting Hanoi, Hai Phong Port City and area of Ha Long Bay located at the north of Hai Phong as the development center of the North. Therefore, the construction of transport infrastructure in this area was ranked first priority during 1990s, after the resumption of Japan's ODA to Vietnam. In 1993, the first Yen Loan Project, namely "National Highway No. 5 Improvement Project" to facilitate the transportation between Hanoi and Haiphong, and "Master Plan for Transport Development in the Northern Part of Vietnam"(1993-1994), formulated the comprehensive master plan on transport network for this area have been completed. Based on this master plan, yen loans have been provided for the rehabilitation project of Hai Phong Port and expansion of Cai Lan Port, which plays a supplementary role to the Hai Phong Port. Also, the construction of national highways connecting Cai Lan Port with Hanoi and Hai Phong (National Highway No.18 and National Highway No.10), Bai Chay Bridge on the National Highway No.18 and Binh Bridge located inside Hai Phong City was financed with yen loans.

Thanks to the construction of the above-mentioned works during 1990s, important national highways and seaports in development triangle of the North have been improved, expanded or newly constructed. This has helped to dramatically strengthen the network of transportation in this area. As a result, private sector investment into Hanoi's suburban areas, Hai Phong City as well as areas along national highways has been promoted, making a contribution to economic development and poverty reduction in this area.

In addition, in 2000 JICA supported the formulation of the Strategy for national transport network development and this Strategy has become the basis for formulating master plan in the near future. Based on research results, JICA continuously supported the construction of major transport infrastructure in the North and other regions. Although the rapid mechanical process and upgraded infrastructure have been reached, the traffic safety awareness of drivers has not been improved. This leads to the increase in traffic accidents and this issue has become a big social issue. Therefore, JICA also provides support in road traffic safety measures in the North.



## Establishment of East West Economic Corridor

Known as the East West Economic Corridor, the route starting from Da Nang (Vietnam), through Laos, connecting the border areas in Thailand and Myanmar, can be considered as vital for economic growth and poverty reduction through regional integration for the countries in the Greater Mekong Sub-region (GMS). JICA has been engaged in the development of the East West Economic Corridor together with other donors such as ADB, etc. Since the end of 2007, the completion of the Laos-Thailand 2 Friendship Bridge which was constructed by ODA has officially opened East West Economic Corridor. In Vietnam, JICA has supported the improvement of Da Nang Port, the door to this Corridor (including the construction of bridge and the access road from the city to the port) and construction of Hai Van Tunnel (completion by May 2005) to improve the bottleneck along it like Hai Van pass on the way to Da Nang. Thanks to this work, the transportation from Da Nang Port, through Hai Van Tunnel to Laos on National Road No 9 has been dramatically improved. Moreover, JICA has supported the formulation of a master plan for Da Nang City, not only from the viewpoint of an independent city but also from the view point of East West Economic Corridor.

1999 ~ 2007: Da Nang Port Improvement Project

1999 ~ 2007: Hai Van Tunnel Construction Project

2008 ~ 2009: The Study on Integrated Development Strategy for Danang City and Its Neighbouring Area



## 3-2 Improvements in Living Conditions and Corrections of Development Disparities

### 1) Improving Basic Social Services

#### (1) Health Care Service

In Vietnam, the side-effects of economic growth and support by donors of different countries as well as the health and medical reforms have contributed to the improvement of various basic indicators including the infant mortality rate (24 deaths per 1,000 births in 2011), maternal mortality rate (56 deaths per 100,000 births in 2011), and the average life expectancy (75.2 years in 2011). However, improvements in the health situation have progressed unevenly; therefore providing sufficient benefits to people in the rural areas and the poor is still an urgent challenge for Vietnam's health sector.

On the other hand, although the ratio of infectious diseases has decreased rapidly, there are still many problems including the recurrence of dengue outbreaks in some areas, the spread of HIV/AIDS among the youth and epidemics of emerging infectious diseases such as Avian Influenza in Human. As for the hospital system, problems such as patient concentration in hospitals at the central level, and the low satisfaction rate of patients, are points of concern.

Against this background, in accordance with the Country Assistance Program for Vietnam, JICA would emphasize the capacity development of medical workers, in strong connection with the Ministry of Health and the core medical institutions at the central level, contributing to improvements in the quality of health and medical services throughout the country. JICA would place the highest priority on support for formulation, piloting and implementation of policies through the development of medical human resources (doctors and nurses). In addition to the afore-mentioned activities, with the aim of disseminating experience and scaling up achievements in the past, JICA would assist the provision of equipment and facilities through grants and loan assistance, thereby improving the health services at the local level in an effective manner.

As for emerging and re-emerging infectious diseases, JICA would continue to stress relations with the National Institute of Hygiene and Epidemiology (NIHE) with the aim of enhancing their capacity and sustainability and would consider exploring new cooperation depending on the state of infectious diseases. For ensuring the effectiveness of the above-mentioned cooperation programs, JICA would strengthen policy dialogue with the Ministry of Health.



Bach Mai Hospital



National Institute of Hygiene and Epidemiology

## (2) Basic Education

In Vietnam, the net enrollment rate for primary education reached 97.4% in 2007. The gender gap is small and the share of female students is 47.7% as the national average (2005). The adult (15 years of age or over) literacy rate is as high as 90.3% (2005), and the quality of Vietnamese teachers is rather high.

On the other hand, there remain issues in basic education to be solved, including elimination of regional disparities in access to education, transition to full-day schooling from double and triple sessions in a day in order to ensure sufficient length of class hours, which is said to be short in an international comparison, transition from lessons emphasizing rote memory to those encouraging thinking, and the improvement of educational administrative capabilities, etc. Big disparities between regions exist and several major concerns are: insufficient facilities and equipment, lack of curricula and educational material, inadequate quantity and low quality of teachers, high rate of drop-out of the poor, physically-handicapped children and ethnic minority pupils in remote mountainous areas.



In this field, Vietnam has carried out considerable reforms and received support from many international organizations. However, the scale of support has been narrowed. Thus, JICA would consider supporting to the improvement of Rural Development and Livelihood from the viewpoint of poverty reduction, depending on actual needs of Vietnam.

Lecture of fine arts in primary school in Bac Giang province (JOCV)

## (3) Support to the Socially Vulnerable

In parallel with making policy support, JICA would continue emphasizing cooperation that provides direct benefits to the socially vulnerable, such as the disabled, mostly through grass-root activities. JICA would also cooperate with the Vietnam Women's Union in dealing with women trafficking. These support measures, with the aim of assisting people vulnerable to risks, are urgently required from the viewpoint of human security.



Community-based rehabilitation support program for the physically-disabled



Physical therapist (JOCV)

## Improvement of the medical services

JICA is combining effectively grant aid and technical cooperation at 3 core hospitals, namely Bach Mai Hospital in Ha Noi, Hue Central Hospital in Hue, and Cho Ray Hospital in Ho Chi Minh City, in order to improve infrastructure and enhance abilities of medical staffs of those hospitals, as well as to promote the training activities toward provincial hospitals.

Moreover, with an aim to overcome the difficulties of facilities of provincial hospitals, JICA has supported to build and upgrade the facilities of Thai Nguyen Central Hospital, Lang Son Hospital and Ha Tinh Hospital. In the near future, JICA also plans to support 10 other hospitals nationwide by ODA loans.

Beside the above contributions, in order to cope with infectious disease, since 2006, JICA has been supporting the National Institute of Hygiene and Epidemiology (NIHE) to consolidate the management of bio-safety and enhance testing skills of highly hazardous infectious pathogens in accordance with the international standard, helping Vietnam to control dangerous diseases in the fastest and the most effective way.

In addition to the support in upgrading the hard components such as infrastructure and medical equipments, assistance to the soft components in term of giving advices on health policies, sustaining the medical system based on cooperation with 3 core hospitals and human resources development, JICA is making important contributions to improving the quality of medical services in Vietnam.

### In the North:

- 1998 ~ 2000 Improvement of Bach Mai Hospital (Grant Aid)
- 2000 ~ 2005 Functional Enhancement of Bach Mai Hospital
- 2004 ~ 2009 Strengthening Health Services Provision in Hoa Binh Province
- 2005 ~ 2007 Improvement of Hoa Binh Hospital (Grant Aid)
- 2006 ~ 2009 Bach Mai Hospital Project for Strengthening Training Capacity for Provincial hospitals
- 2006 ~ 2010 Capacity Development for NIHE to control emerging and re-emerging infectious diseases
- 2011 ~ 2016 Capacity Development for Laboratory Network in Vietnam of Biosafety and Examination of Highly Hazardous Infectious Pathogen
- 2010 ~ 2015 Improvement of the Quality of Human Resource in the Medical Service System
- 2006 ~ 2011 Regional and Provincial Hospitals Development (Phase 1) (ODA loans)

### In the Central:

- 2005 ~ 2006 Improvement of Medical Equipment of Da Nang Hospital (Grant Aid)
- 2004 ~ 2006 Improvement of Hue Central Hospital (Grant Aid)
- 2005 ~ 2010 Improvement of Medical Services in the Central Region

### In the South:

- 1992 ~ 1995 Improvement of Cho Ray Hospital (Grant Aid)
- 1995 ~ 1999 The technical cooperation project for Cho Ray Hospital
- 1999 ~ 2004 In country training program on enhancement of clinical techniques
- 2004 ~ 2008 In country training program for strengthening medical human resources in the Southern Area
- 2010 ~ 2013 Strengthening Medical Rehabilitation Services in the Southern Area of Vietnam



Training for nurses at Emergency Department (Bach Mai Hospital)



Improvement of Hue Central Hospital (Grant Aid)

## 2) Rural Development and Improvements in Livelihood

In Vietnam, because of the rapid industrialization process, the share of the agriculture, forestry and fishery sector accounts for only 20.3% of GDP (in 2007), and tends to be decreasing. However, three quarters of the total population live in rural areas and agriculture, forestry and fishery sector employs 53.9% of the population, so these sectors still have a major impact on the Vietnamese economy and society. Especially the rural areas play a major role as suppliers of food and raw materials and a market for industrial products, and also contribute to sustainable socio-economic development of the country in terms of natural environment conservation and ensuring a stable society.

With respect to agriculture, since the Doi-Moi policy was introduced, economic liberalization measures such as permission to possess agriculture-related properties, the removal of crop price controls and application of advanced agricultural technology have encouraged the diversification of products and the improvement of agricultural productivity. As a result farmers' incomes have increased. The Vietnamese government, encouraging such direction, aims at diverse, productive, high-quality and sustainable crop production to satisfy domestic consumption and export demands.

In terms of rice production, Vietnam is far below that of Japan and China (4,869kg/ha in Vietnam in comparison with 6,537kg/ha in Japan (FAO, 2007)). Therefore, it is essential to increase Vietnam's agricultural productivity. Major issues as weakness of extension system, insufficient access to financing, weak farmer's organizations, low quality of crops including safety issues, small land plots per farming household (the average is 0.3ha in the north and 1.2ha in the south), aging irrigation facilities, and the absence of agriculture insurance have become hindrance to the development of agriculture in Vietnam.

In addition, it is essential to address bottlenecks in livelihood improvements of the rural population that include vulnerability to natural disasters, insufficient development of potential industries other than agriculture (a limited number of farming households can earn their living by farming alone, and diversification of livelihoods is a key issue), deterioration of infrastructures and pressures on the natural environment (decreasing forest resources), etc.

In this context, JICA, in accordance with the Country Assistance Program for Vietnam, would aim to improve livelihoods of the rural population, particularly the poor, and give priority to the Northern Mountainous Regions (specifically the Northwestern region), Central Highlands Region, and Mekong Delta Region through selective and targeted support and cooperation with the Development Triangle which was agreed at the Japan-CLV Summit Meeting. Furthermore, Japan's ODA would provide the following four pillars of assistance:



Capacity Building of HCMC University of Technology to Strengthen University-Community Linkage



Capacity Building for AR-CDM Promotion

### **(1) Agriculture, Forestry and Fishery**

Taking into consideration the situation of considerable change of environment of local people after the accession to the WTO, JICA would provide support for the poor to improve policy/systems and upgrade technology, especially in the three aforementioned priority areas. Attention should be paid to improving the extension system so that technology improvements can better benefit farmers and fishermen.

### **(2) Development of Rural Industries**

To support diversification of livelihoods in the rural area, JICA would support development of traditional handicraft, tourism, and utilization of natural resources, aiming at comprehensive livelihood improvements in collaboration with activities for access and quality improvement of basic social services.

### **(3) Natural disaster prevention**

Vietnam is one of the most disaster-prone countries. Natural disaster causes hunger and poverty to the citizens. Today, JICA is implementing various activities to strengthen the community natural disaster prevention in the local, improve disaster risk management (DRM) capacities of functional bodies and upgrade infrastructure for natural disaster prevention. JICA also implements Japanese government's emergency relief assistance.

### **(4) Infrastructure Development (Power Distribution, Roads, Water Supply, Irrigation etc.)**

JICA supports the establishment of an adequate institution for proper operation and maintenance for improvement and sustainable use of local infrastructure, aiming at poverty reduction and livelihoods improvement.



Participatory Approach for Contribution to Improvement of Safe water, Nutritional and Health Environment in three Rural Communes (Photograph: ILSI Japan CHP)

## Development of Northwestern Mountainous Region

Although economic growth has been progressed rapidly in Vietnam, the development disparity between the rural and urban areas, and between regions remains considerable. The Northwestern Region is the poorest area in Vietnam facing many difficulties in the process of socio-economic development. Therefore, JICA has implemented comprehensive cooperation with the Northwestern Mountainous Region with the purpose of narrowing the social gaps. Under such direction, JICA has conducted a development study “Master Plan Study on Improvement of Rural Living Conditions in North Western Mountainous Region” in order to gain a thorough grasp of local challenges and potentials, then contributing to supporting the Government of Vietnam to make the long-term development policy for the region. Based on the study, JICA recognizes the agriculture and forestry sector are the main production force of the region, and thus has been implementing the technical cooperation project with the purpose to promote artisan crafts, increasing added-value of potential crops, and bringing regional resources into play for regional sustainable improvement and development. Moreover, JICA also carried out a preferential loan-funded project for development of basic infrastructure (roads, power distribution, water supply, irrigation) in rural areas - an indispensable factor contributing to regional development. Through the collaboration of the development study, technical cooperation and yen loan, the development program in the Northwestern mountainous region will be implemented in an effective manner.

### ODA Loans

- 1995 ~ 2002 Rural Infrastructure Development and Living Standard Improvement (I, II, III)
- 2002 ~ Small-scale Pro-poor Infrastructure Development Project (I, II)

### Technical cooperation

- 2007 ~ 2008 Master Plan Study on Improvement of Rural Living Conditions in North Western Mountainous Region
- 2008 ~ 2011 Project on Capacity Development on Artisan Craft Promotion for Socio-economic Development in Rural Area
- 2010 ~ 2015 Project for Northwest Region Rural Development
- 2010 ~ 2015 Project for Sustainable Forest Management in the Northwest Watershed Area



Small-scale Pro-poor Infrastructure Development in Lai Chau Province



Artisan Craft Promotion for Socio-Economic Development in rural area

## 3-3 Environment Conservation

### 1) Urban Environmental Management

Economic growth and rapid urbanization in Vietnam have caused serious environmental problems.

Urban water pollution increases because of direct flow of untreated daily and industrial waste water and floods occurs more frequently due to poor management of drainage systems. Untreated hazardous waste including hospital waste and lack of environment-related treatment works also pose a serious problem. Air pollution is a concern not only in central cities but also in residential quarters and it exceeds the environmental standards. In such a situation, the Vietnamese Government has been intensifying measures to alleviate environmental problems by setting up “an environmental protection strategy” and defining targets aimed at restricting rapid pollution growth. Furthermore, the Vietnamese Government has built a basic legal system on environmental management, of which laws on environmental protection were amended, and sanctions were introduced with the detail circulars. In addition, since 2006 the government decided to allocate one per cent of the national budget to environmental protection expenses. With a mind to strengthen natural resource protection, the Ministry of Public Security established a department of environmental protection police in 2007 that has strictly punished any violation of environmental protection law. Human resources and finance remain insufficient in the administrative structure of environmental protection in the Ministry of Natural Resources and Environment - also in the line body of urban environment management, in local departments of natural resources and environment.

Consequently, JICA has been supporting all aspects of infrastructure, human training, operation mode improvement, planning, institution improvement through the programs/projects on technical cooperation and financial assistance focusing on the fields of the water environment management, waste management in the medium and big cities and industrial zones which are in need of urban infrastructure improvement and are severely polluted.

Regarding water environment management, with a target of reducing pollution to meet the demand on diversified water sources and improving water quality from Vietnam rivers, JICA has supported human resources training for management bodies, waste water treatment plants, investigation and research agencies for the water environment management, administrative offices relating to the water environment management in the key cities at risk of high pollution level such as the four big cities of Hanoi, Hai Phong, Da Nang and HCMC, and other cities as well such as Hue, Ha Long and Can Tho, where dense population has caused serious pollution problems.

Regarding waste management, 3R Initiative has been applied: Reduce, Recycle, Re-use, JICA focuses on technical assistance in waste classification and construction of waste treatment plants.



Hanoi Drainage Project for Environmental Improvement



Wasted - material toys for Hue pupils



Lecture on environment education in a Hanoi primary school

## 2) Natural Environment Conservation

Vietnam forests are important for not only providing us with wood materials and charcoal but also water conservation, ecological environment protection. However, due to the conversion of forest land to farm land because of population growth, hunger, poverty and illegal deforestation, forest cover decreased from 43% in 1945 to 28% in 1995. Thanks to afforestation efforts, forest cover had reached 37% by 2005. The Vietnamese government made efforts on making “a forest development strategy 2006-2010,” considering the forest redistribution and rehabilitating forests in both quality and quantity. Despite these efforts, there remain difficulties in forest management, such as lack of forest wardens and staff, sluggish implementation of the program on local people’s participation in forest management, and lack of forestry improvement measures.

Ten percent of the world animal species are found in Vietnam, and it is one of rich biodiversity nations in the world. Parallel with the establishment of nature conservation zones with 30 national parks accounting for 7.6% of the country area, the development of “a management strategy of nature conservation zones by 2010” (in 2003), the government has implemented programs for environmental protection through the participation of the local people and opened human resources training for ecosystem conservation and natural resources management in the national parks. In addition, a law on biodiversity was ratified in 2008. However, illegal hunting of wild animals, deforestation destroying the living environment of fauna and flora has resulted in 700 species in danger of extinction; the world’s valuable biodiversity is being lost at ever faster rate.

Thus, JICA has promoted cooperation on programs/projects on sustainable management of natural environment and forest for the improvement of biodiversity, forest area and its quality. In addition to decentralization, JICA has supported the overall management of natural resources, and the mobilization of peoples’ participation and their livelihood improvement.



Afforestation based on CDM (in cooperation with Honda Vietnam Corp)



Capacity Building for Preparing Feasibilities Studies and Implementation Plans for Afforestation

### 3) Climate Change

Vietnam which has more than 3,200 km coastal line, is one of the countries which are affected significantly by climate change. According to the Ministry of Natural Resources & Environment's scenarios, it is forecasted that til 2100, the sea level will rise up to between 75 cm and 100 cm, thus flooding 40 percent of Mekong River Delta and more than 20 percent of Ho Chi Minh City area. In response to that, the Government of Vietnam has timely adopted the International Convention on Climate Change and has been actively developing institutional instruments for climate change response. One of these actions was the endorsement of National Target Program on Response to Climate Change in December, 2008.

JICA, in connection with other donors and international organizations, has committed to support Vietnam in formulating overarching policy on climate change by conducting policy dialogues to the Government of Vietnam as well as by financing for execution of the above-mentioned Program.

With respect to mitigation measures, right after the 13th Session of the Conference of the Parties to the Climate Change Convention (COP13) within the United Nations' Frame Convention on Climate Change, the developing countries gave more prominence to "Reducing Emissions from Deforestation and Forest Degradation (REDD)", and JICA has been actively consulting on Vietnam's REDD policies including a thorough grasp of the status of forest resources as a contribution to REDD. JICA has been also considering support in efficient use of renewable energy, and using ODA loans for promotion of energy saving in Vietnam enterprises.

For adaptation measures, JICA conducts analysis on impacts of climate change to Mekong River Delta, supports to mitigate natural disasters' impacts in the Central area, plants protection forests in coastal areas as well as advocate sustainable development planning.



Flood prone area due to the affect of climate change



Coastal protection forest in Quang Nam Province

## Improvement of Urban Water Environment

In the past, Hanoi was seen as the Venice of Indochina whereas the ancient capital of Hue was known as a water palace. In a country that is such rich in water resources like Vietnam, “Town” and “Water” exist in an inseparable relationship. Time after time, the authorities have had to work hard to master the flooded rivers and they have made every effort to build the city where an amicable symbiosis of man and water was possible.

However, urban infrastructures had been ruined and made obsolete due to long lasting wars. In addition, since the 1990s, because of rapid economic growth and urbanization, the inner city infrastructure hasn't been able to meet the needs of the population increase. Due to the poor management of drainage system and waste water treatment, damage caused by flooding is frequent.

In order to improve this situation, to meet the request from the Government of Vietnam, JICA conducted a survey on the development of drainage system and waste water treatment of Hanoi. Based on the survey result, since 1995 “Hanoi Drainage Project for Environment Improvement” (including drainage system and waste water treatment) has been carried out with ODA loans. Likewise, JICA has supported some main cities in Vietnam such as HCMC, Hai Phong, Hue, etc.

In addition, JICA has been conducting technical cooperation with Vietnamese Academy of Science and Technology for enhancing the capacity on analysis technology of water quality and treatment in research institutes, acting as advisors for state management agencies. Through these measures, the condition of Vietnam's water resources is expected to improve.

### **(In Hanoi)**

- 1993 ~ 1994 The Study on Urban Drainage and Wastewater Disposal System in Hanoi
- 1995 ~ 2005 Hanoi Drainage Project for Environment Improvement (ODA loans)
- 2006 ~ Second Hanoi Drainage Project for Environment Protection (ODA loans)

### **(In Ho Chi Minh City)**

- 1998 ~ 1999 The Study on Urban Drainage and Sewerage system for HCMC
- 2001 ~ 2009 HCMC Water Environment Improvement Project (ODA loans)
- 2006 ~ Second HCMC Water Environment Improvement Project (I) (ODA loans)
- 2009 ~ 2010 Project for Capacity Development on Sewerage Management (I)

### **(Others)**

- 2003 ~ 2006 Project for Enhancing Capacity of Vietnamese Academy of Science and Technology in Water Environment Protection.
- 2008 ~ 2012 Project for Enhancing Capacity of Vietnamese Academy of Science and Technology in Water Environment Protection (Phase 2).
- 2005 ~ Hai Phong City Environmental Improvement Project (ODA loans)
- 2008 ~ Hue City Water Environment Improvement Project (ODA loans)
- 2008 ~ 2010 Study on river basin's water environment management
- 2010 ~ Project for strengthening capacity of water environmental management