



Strategy and Program Assessment

Document Stage: Final
2005

Vie: Country Environmental Analysis

Asian Development Bank

1. Background

1. Viet Nam is among the world's fastest-growing economies. Its stable political regime and robust macroeconomic fundamentals have catalyzed significant recent achievements in terms of economic growth, poverty reduction, and improved living conditions for its most poor and disadvantaged groups. However, such rapid economic growth, coupled with a growing population and a shrinking natural resource base is straining the nation's environmental quality.

2. Environmental Issues and Challenges

2. **Land Degradation.** The majority of Viet Nam's land is classified as having degraded soils. Land degradation in Viet Nam results from: natural topographical and geological conditions which make certain areas susceptible to soil erosion, deforestation, contamination from chemicals used during wars and use of pesticides, increase and overuse of cultivated land area, and acidification and salinisation of soils. It was estimated in 2002 that approximately 50% of Viet Nam's land area had poor quality soils as a result of human activity, while approximately 70% of the country is affected by soil erosion hazard to varying degrees. Given the high dependence of Viet Nam on agriculture (78% of livelihoods) soil erosion and fertility losses are issues of concern with potential for significant economic impacts.

3. **Forest Resources.** While overall forest cover in Viet Nam has been increasing in recent years from a low of 28% in 1990 to a current level of 37.6%, the quality of forest cover is decreasing. Rich and medium stocked forests are now concentrated mainly on hilltop or steep slope areas that are unsuitable for other land uses. Identified threats to forest cover include clearing for agricultural land, unsustainable exploitation of timber and non-timber forest resources for subsistence and commercial uses and forest fires. The number and total area of protected areas increased from 0.4% of the total land area in 1992 to 7% in 2005. However, despite increases in the number and coverage of protected areas, the management of these areas is compromised by lack of proper institutions (management boards) or management boards with low levels of funding and staff capacity.

4. **Marine and Coastal Resources.** Viet Nam's marine and coastal resources provide economic livelihoods for a large proportion of the nation's population. Economic activities in the marine and coastal zones are managed by individual sectors and there is limited coordination between various stakeholders. This leads to unsustainable resource extraction (especially for nearshore fisheries), which, *inter alia*, creates a growing dependence on marine aquaculture as a source of both domestic protein and foreign exchange. In many ways aquaculture is proving to be an important national product, however, it is often developed at significant environmental cost to the natural surroundings. Of particular concern is that Vietnam's vaguely gazetted and underfunded marine and coastal protected areas are being converted to other uses (e.g. shrimp farming, shipping channels, dredge disposal areas). Government agencies are well aware of this situation and are in the process of formulating new ordinance for strengthening conservation of biodiversity, wetlands, and marine protected areas. Following the promulgation of these ordinances, there will be a substantial need for financial and regulatory support for their implementation.

5. **Biodiversity Resources.** Viet Nam lies at the junction of two major biogeographical areas, which lays a foundation for a naturally biodiverse country, as demonstrated by the fact that Viet Nam is home to approximately 3% of the globally threatened species. Whilst biodiversity remains high for the moment, the total numbers of many species are low and may have dropped below long-term viable levels in some cases. The percentages of populations of globally threatened species that are conserved within protected areas are generally low. Pressures to reduce biodiversity include wildlife hunting and consumption, mono-cropping, land fragmentation, and a lack of conservation incentives. Data on trade of wild or illegally captured fauna species listed on the CITES convention indicate a general increase in such trade. Importantly, recent research indicates that poverty is not a primary factor fuelling the trade in wildlife, and that as household income increases so will the demand for the capture and consumption of wildlife, which will pace further stress on biodiversity resources. This points out to the need to find alternative sources of the wild resources such as domestication.

5. **Mineral and Groundwater Resources.** The country has a wide variety of mineral resources. However, environmental management of mining activities remains relatively poor. Illegal mining activities are common in certain areas. For example, gold mining is causing significant local and regional environmental impacts, due to the mercury contamination of downstream watercourses and groundwater. Groundwater quality is generally suitable for most domestic purposes, although there are hotspots of contamination. Groundwater resources are abundant; however, in the Red River and Mekong River deltas, over-exploitation is leading to falling water tables and subsidence issues.

6. **Surface Water Resources.** Overall, Vietnam has abundant surface water resources. However, upstream diversions, droughts and seasonal variations in river flows mean that some areas in Viet Nam experience low per capita water availability. In terms of surface water quality, upstream water quality of most rivers remains suitable for sustaining freshwater ecosystems and/or domestic purposes, while downstream quality is generally poor, unsuitable for domestic purposes and is causing freshwater ecosystem decline. Water quality is poorest in urban areas, which tend to be in downstream areas near the mouth of the rivers and the main downstream sources of pollution are untreated industrial and domestic wastewater discharges. Salinity intrusion is a particular issue of concern in the Red River and Mekong Deltas.

7. **Pollution and Waste Management.** Air quality is considered to be severely degraded in cities and industrial areas throughout Viet Nam. This pollution causes a noticeable and regular occurrence of respiratory problems. The main pollutant is dust (monitored by Total Suspended Particulates (TSP)), which is usually 1-5 times higher than national standards. Major stationary sources of pollutants are factories, power plants and biomass fuel burning mainly for heating in households. Vehicles are the major mobile source of air pollutants. The majority of solid waste disposal and landfill sites are poorly operated and maintained. Environmental and social issues, associated with landfills in Viet Nam, include contamination of groundwater and surface water by leachate, emissions of air pollutants and odours, vermin, public health problems from gases and emissions, waterborne diseases and dust and noise. Health and safety issues are particularly significant for wastepickers who work informally on landfill sites and who are generally socially marginalized, disadvantaged group, comprising a high proportion of women and children.

8. **Industrial Environmental Management.** Industrial activities have been increasing in recent years as demonstrated by an increase in contribution to the GDP from 36.7% in 2000 to 40.0% in 2003. In the same period the total number of enterprises increased, while the proportion of State Owned Enterprises (SOEs) decreased. Industrial activities contribute significantly to environmental degradation in terms of noise, air and water pollution. Low standards of technology, combined with weak monitoring and enforcement of environmental standards exacerbate problems associated with industry.

9. **Tourism Development.** Tourism is increasingly realized as an important contributor to socio-economic development. The turnover from tourism increased by 94% between 2000 and 2003 and tourism now contributes approximately 10% of the total GDP. The increasing level of tourism activity is putting strain on physical and natural resources. Key environmental management issues include the effects of infrastructure development, solid and liquid waste management, disturbance and social impacts on isolated communities and stress on natural areas. More investments are needed to maintain the quality natural assets that support tourism industry.

10. **Environmental Management of Transport and Energy Projects.** The rapid economic growth of Viet Nam is leading to corresponding growth in the demand for energy and transport infrastructure. Energy generation and rural electrification projects are being carried out throughout Viet Nam both with and without international assistance. Major transport projects such as the Ho Chi Minh Highway as well as urban and rural road network development are being undertaken. Key environmental management issues include a lack of strategic environmental assessment of master plans and regional plans. No policy guidance available for the development agency (Ministry of Transport, Electricity of Vietnam) to conduct the assessments, and the regulatory agencies do not have the capacity to review or undertake such assessments. Implementation of appropriate safeguards during project construction and operation is weak. Considering the ecological footprint that they create, strengthening the process that integrating environmental considerations into the design, construction, and operation of transport and energy projects will play a vital role in managing the environment in Viet Nam.

11. **Natural Hazards and Disaster Management.** Viet Nam is prone to a range of natural disasters including floods, typhoons, droughts, mudslides, and salinity intrusion. The average economic loss from natural disasters is estimated to be \$200 million/year. The impact of these disasters generally affects those people living near lowland areas – estimated to be about 72% of the nation's population. Although the frequency of many natural disasters cannot be easily controlled within Viet Nam, the magnitude of disasters are often exacerbated by domestic activities such as clearing of shoreline protecting mangroves and coral reefs, and clearing soil protecting-forests.

12. **Climate Change.** As would be expected given the rapid rate of industrialization and rising incomes, greenhouse gas (GHG) emissions in Viet Nam are rising. Emissions from the energy sector are the main source of GHG emissions. About 72% of Viet Nam's population lives in coastal and delta provinces, and the Red River and Mekong River deltas provide most of the country's food surplus. The impact of a 13-94 cm rise in sea level by 2100 as a result of GHG emissions could cause extensive saltwater intrusion and reduce a significant portion of agricultural lands.

13. **Transboundary Issues.** Viet Nam shares substantial lengths of land borders with China, Cambodia and Laos. Key environment-related trans-boundary issues with these countries and with Thailand include water diversion and water pollution in upstream areas of the Mekong and Red Rivers, regional air pollution, trans-border infrastructure construction including roads and electricity lines and wildlife trade and logging (mostly illegal).

14. **Poverty and Environment.** Recent analyses have drawn the following broad conclusions about the links between poverty and environment in Viet Nam: (i) poor communities are concentrated in areas with degraded or low quality environmental conditions and depleted natural resources including the northern mountainous region, central highlands and Mekong Delta; (ii) poor communities are the most dependent on the environment and natural resources for maintaining their livelihoods - approximately 70% of Vietnamese people earn their living from the land, and therefore they are directly dependent on the quality and availability of natural resources; and (iii) poor communities are the most at risk from suffering effects to their health or livelihoods if there is a decrease in environmental quality or availability of natural resources. Despite these broad conclusions, there is no data in Viet Nam to support the assumed reciprocal impacts of environmental conditions on poverty and poverty on the environment.

3. Government's Strategy

15. In recent years, the Government of Vietnam (GOV) has demonstrated a strong commitment to the strengthening of the strategic, legislative and institutional context for environmental protection and management. The strategic and policy framework has been enhanced through the development and adoption of a number of high level strategies including the National Strategy for Environmental Protection to 2010 with Vision to 2020 (NSEP) and the Vietnam National Agenda 21 Strategy (VA21). Importantly, overriding GOV strategies such as the Strategy for Socio-Economic Development 2001 to 2010 (SEDP) and Comprehensive Poverty Reduction and Growth Strategy (CPRGS) contain recognition of the links between environment and poverty and include a range of environment-related actions. In general, there is a high degree of similarity between priorities contained in the strategies and there are no conflicting or inconsistent priorities. However, there is a lack of clear hierarchy/priority between the strategies and the issues and objectives contained in documents are numerous and the targets (where available) are ambitious.

16. The review of the key environmental legislative instrument, the Law on Environment Protection (LEP) was completed in late 2005 and is due to be adopted in mid-2006. The revised LEP will result in substantial changes to the structure and content of the main piece of environmental legislation in Viet Nam. Information received to date indicates that the revision will strengthen the legislation and introduce requirements for strategic environmental assessment and increased responsibility of GOV ministries and departments in managing environmental issues. Other important pieces of environment-related legislation that have been developed in recent years include the revised Law on Water Resources, the revised Land Law, the Forest Protection and Development Law, and a number of regulations relating to fines for environmental pollution/violations, wastewater charges and establishment of the Viet Nam environmental protection fund.

17. The GOV has established the Ministry of Natural Resources and Environment (MoNRE) as the line ministry with central responsibility for environmental issues.

MoNRE is responsible for the current process of decentralization of environmental responsibilities from the national to the provincial and local levels. Further capacity building and institutional strengthening at both the national and local levels, and further demarcation of the environment-related roles and responsibilities of central and local agencies will be required to ensure that the anticipated benefits of decentralization are realized.

4. ADB's Strategic Approach

18. Given the key environmental issues, challenges, and opportunities in Viet Nam, it is necessary that the ADB incorporate sound environmental management in all its operations. To assist in this, a range of recommendations have been developed which are intended to improve the environmental sustainability of the planning and implementation of the CSP as discussed below.

2. The first recommendation relates to the revision of some of the CSP concept papers to strengthen environmental interventions. A number of environmental risks that may be incurred by implementing CSP concept papers have been identified and specific recommendations to reduce risks have been developed.

3. The second recommendation is that given Vietnam's substantial needs, ADB may want to consider new ways to support environmental sustainability. There are far more needs to support environmental sustainability in Vietnam than ADB can provide. Therefore, it is useful to develop a list of principles under which different approaches to support environment management could be evaluated and prioritized. A draft set of principles has been developed for consideration. Based on these principles, three priority areas have been identified: (i) Support to strengthen MoNRE's capacity to regulate environmental quality throughout Viet Nam (lending product); (ii) Support to Electricity Viet Nam to strengthen its environmental management system (non-lending product); and (iii) Support to Ministry of Transport to implement its Environmental Action Plan; (non-lending product).

4. The third recommendation relates to strengthening of environmental safeguard support within ADB's Viet Nam Resident Mission. Given the emerging importance of environmental integration into the CSP's lending and non-lending products, it may be a prudent investment for ADB to engage an environmental specialist to oversee ADB's environmental interests in-country. The task of the VRM environmental specialist(s) can focus effort on programmatic support that ADB cannot easily provide through project-level consultancies or missions from Manila. For example active and regular participation on the International Support Group on the Environment; regular and ongoing advisory services to government on the development of legal instruments (Biodiversity Law, Clean Air Law, Circulars, decrees, etc under the proposed Law on Environmental Protection); ongoing awareness raising amongst VRM and Mekong Department on emerging environmental issues and opportunities in Viet Nam; and in-house advisory services to missions and consultancies on environmental matters (e.g. support to Recommendation 4 below).

5. The fourth recommendation is that ADB may want to support strengthening of systems to exchange information with local environmental stakeholders. One approach to achieve this recommendation is to organize an *ad hoc* environmental advisory group of knowledgeable in-country specialists from a broad spectrum of environmental

stakeholders: NGOs, government agencies, and projects. The proposed approach for this advisory group is keep its rules simple and expectations modest.

6. The fifth recommendation relates to improved co-ordination between the CSP and the GMS Core Environment Program. There is substantial opportunity to improve co-ordination between the Hanoi and Manila based CSP and the Bangkok and Manila-based Core Environment Program with the aim of optimizing synergies between these two initiatives.