

A Perspective on Vietnam

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Environmental concerns in Vietnam have received increasing recognition since the 1980s. Policies, strategies, plans, programs, and projects have been implemented by scientists, experts, and managers dedicated to sustainable development. Several laws on natural resources and environment were issued during the last decade, establishing a very basic legal framework for natural resources and environmental management. However, technical regulations are still seriously lacking. The enforcement of laws and regulations needs to be improved. Environmental sustainability should be integrated with socio-economic development plans.

General Environment and Natural Resources Situation

Vietnam is endowed with diverse natural resources, including land, forest, water, mineral, energy, and biological resources. It has 8.4 million hectares of agricultural land and 12 million hectares of forestland; the latter figure reflects a serious deforestation of about 40 percent during the last half century.

A dense network of rivers and creeks covers Vietnam. The total annual runoff is estimated at 835 billion km³, of which 63 percent is generated outside the country; most of the large rivers in Vietnam are international. Groundwater potential is roughly estimated at 58 km³. The country's hydropower potential is 17,400MW, of which 17 percent is developed, contributing half of Vietnam's electricity production. The development of water resources so far has made an enormous contribution to economic growth. In addition to natural calamities, such as devastating floods and severe drought, even lacking drinking water in several areas, water pollution was recently widely recorded. Water quality is deteriorating.

With its tropical rainforest and monsoon savanna, marine and wetland life, and mountainous sub-alpine scrubland, Vietnam is home to one-tenth of the world's inventoried species of birds, fish, and mammals. Forty percent of the current inventoried plant species in Vietnam are endemic.

Sub-national Environmental Priorities

Vietnam's current planning schema divides the country into eight sub-national zones based on geography and socio-economic development. These zones are characterized by diverse environmental conditions and concerns. Two of these zones, the Central Highland Zone and the Mekong Delta Zone, both of which lie within the Mekong River Basin, have special implications for the regional environment. They demonstrate Vietnam's position as both an upstream and a downstream water user.

The Central Highland Zone includes the Upper Sesan and Srepok River Basins, both of which are tributaries of the Mekong River. The Central Highland Zone is characterized

by high ethnic diversity and an economy that is dependent upon the natural resource base. Coffee production is a central part of the local economy, and the zone has significant hydropower generation potential. The Central Highland Zone's once-rich forest resources have largely been lost to deforestation by war before 1975, and by a widespread conversion to agricultural land resulting from the commercialization of agricultural production, population pressure on land resources, and the challenges of adapting shifting cultivation to new socio-environmental demands. Control of forest loss and integrated water resources management are vital for the Central Highland's ecological and economic future.

The Mekong Delta Zone's diverse natural resources are of great importance to Vietnam's agriculture and economy, accounting for some 50 percent of the country's total agricultural production, including 55 percent of its rice production. The zone's rice and fishery products contribute significantly to export revenues, and account for about 27 percent of national GDP. In the Mekong Delta Zone, land, water, fish, and forest resources are linked closely with each other in several diverse ecosystems. The fertility of the alluvial plain is caused by seasonal flooding. However, some major constraints have limited full agricultural development. These constraints include deep and prolonged inundation, salinity intrusion, the spread of acid sulfate water, and freshwater scarcity. The management and flooding of coastal wetlands plays an important role in fisheries and forestry production, as well as in biodiversity protection. However, export markets have sharply increased demand for shrimp cultivation, leading to a serious degradation of these coastal ecosystems. Efforts are being extended for safeguarding what still remains, with a view to sustainable resources management.

Transboundary Issues

Along its 3,700 km of land borders, Vietnam abuts on China, Laos, and Cambodia. Mountains, narrow valleys, and forests dominate border areas, where neighboring countries share a rich yet degrading biodiversity and their common ethnic societies and values. The Truong Son range along the Vietnam-Laos and Vietnam-Cambodia borders has a diverse relief, which explains the region's rich biodiversity. A number of national parks and national reserves have been set up there, such as in Vu Quang, Pu Mat, and Yok Don. The region lying at the Indo-China junction between Vietnam, Laos, and Cambodia is another biodiversity-rich area. A national park has been established in Chu Mom Ray. Some cooperation among Vietnamese scientists and their Lao and Cambodian counterparts has taken place, with meetings from time to time. However, this interaction needs to be greatly improved.

Vietnam shares not only borders with neighboring countries, but also natural resources and environmental impacts. These impacts may include watershed deforestation, water pollution, declining fish and wildlife population in the hinterlands, dislocation of border populations, and illegal transboundary trade.

As mentioned above, of Vietnam's dense watercourse network, seven rivers — all international — are the largest in terms of catchment and runoff. In most cases, water flows into Vietnam. In the Mekong Delta, only 5 percent of annual runoff is generated

locally. The Hong-Thai-Binh system (Red River) receives 42 percent of its runoff from China, while the Ca and Ma Rivers receive 15 percent of their water from Laos. In a few cases, Vietnam takes the position of upstream country: the Upper Sesan and Srepok that join the Mekong River in Cambodia and the Ky Cung and Bang Giang that join the Pearl River in China. These facts illustrate the geo-political positions of both downstream and upstream riparian countries, as well as the potentially strong impacts of transboundary water and related resources development and management in Vietnam.

National Framework for Environmental Governance

Vietnam's policies on the environment were set out quite comprehensively in the "1991 National Plan for Environment and Sustainable Development," which was documented into the "Vietnam Country Report" to the UN Conference on Environment and Development, Rio de Janeiro, 1992. These policies aimed at:

- Satisfying the basic material, spiritual, and cultural needs of current and future generations of Vietnamese people by wisely managing the country's natural resources.
- Establishing and enforcing policies, action plans, and institutional frameworks to ensure the sustainable use of natural resources that are closely connected to all aspects of the process of socio-economic development in the country.

In 1995, the government approved the National Biodiversity Action Plan, of which the immediate objectives were to protect the country's endemic ecosystems, protect those biodiversity components that are now subject to overexploitation or ignored, and promote and identify the utilization values of all biodiversity components, based on the sustainable development of natural resources in order to serve the country's economic targets.

Another key statement is Directive No. 36 on strengthening environmental protection during national industrialization and modernization, issued in 1998 by the Communist Party of Vietnam's Political Bureau. The directive calls upon the whole country to participate actively in environmental protection activities.

Legislative and Institutional Framework

In the 1990s, Vietnam adopted a number of laws related to natural resources and environmental protection, including the Law on Protection and Development of Forest (1991), Law on Land and Territory (1993), Law on Environmental Protection (1994), Law on Minerals (1996), and Law on Water Resources (1999). Under these laws, natural resources belong to all Vietnamese people, and the government exercises unified management over natural resources and environmental protection throughout the country.

The institutional framework for environmental governance consists of:

- The administrative hierarchy, with representation at the national level through the National Assembly, and at the provincial, district, and commune levels through People's Councils and Committees.

- More than ten line ministries and central agencies dealing with natural resources, and other ministries with general planning responsibilities. The Ministry of Science Technology and Environment formerly played a central coordinating role in environmental management; in July 2002, a new Ministry of Natural Resources and Environment was established, and is currently developing its functions.
- Professional agencies, such as research institutes, universities, and national and international NGOs.

Through the above-mentioned legal and institutional framework, Vietnam has introduced a large number of globally accepted principles on environmentally sustainable management into its legislative system. However, there is long way to go in developing effective enforcement of these laws, since regulations are still missing and/or overlapping and institutions are either new or weak.

Environmental Information and Public Access to the System

At the national level, the National Environment Agency of the Ministry of Science, Technology and Environment (MOSTE), now the Ministry of Natural Resources and Environment (MoNRE), is directly responsible for the collection, analysis, and dissemination of environmental data and information. MOSTE/MoNRE collaborates with line ministries and all provinces in environmental data and information activities through their sectoral and provincial departments responsible for science, technology, and environment. Line ministries and provinces have also set up their own databases, and provide MOSTE/MoNRE with information as and when required.

The principles of provision of environmental information and facilitation of public access to this information are defined in the Law on Environmental Protection, which states that governmental authorities have the responsibility of periodically reporting on the environmental situation to the National Assembly, and informing the public. MOSTE/MoNRE submits a State of Environment Report (SOER) every year to the National Assembly on general information concerning the national environmental situation. Some of the main contents of the report are published and disseminated to the public through mass media.

The environmental information and decision-making procedures in Vietnam are, in principle, transparent. Public participation is defined by “four musts” — “People must be informed, people must participate, people must discuss, and people must have control over” — which govern development activities at all levels, from the village community to the national level. Every citizen can request environmental information directly, or through their representatives, the central and local governments.

Legally, all citizens have access to the environmental information available at environment offices. Deputies and individual citizens can also ask for detailed environmental information related to specific projects and programs. Line agencies have the responsibility to answer and adapt to these requirements. The Science, Technology and Environment Committee of the National Assembly assists deputies in accessing relevant government agencies. This apparently sound system design is not workable as

yet, due to unclear regulations and mechanisms for implementation. The same procedures are applied at lower levels regarding environmental information and public access to this information. The Provincial Department of Science, Technology and Environment reports periodically to the Provincial People's Council. Again, enforcement is as weak as at the central level if not worse. Mass media, including national and local newspapers, radio, and television, have been very active in raising public awareness, environmental protection, and defending grassroots rights. Mass media groups are a step ahead in revealing issues, such as illegal timber cutting and water and solid waste pollution.

Transparency is limited for the following principal reasons:

- Fragmented management of natural resources and environment-related sectors, and restricted inter-agency exchange of information.
- Limited availability of environmental information: a robust database of Vietnam's environmental information is still in the process of being developed. Lack of environmental information is serious in some provinces, where information databases do not yet exist and even annual State of Environment Reports have not yet been produced.
- Inadequate monitoring of the ambient environment and inadequate survey of natural resources depletion: the national environmental monitoring network is still very limited. Natural resources data are collected and analyzed by various agencies without significant coordination and management by MOSTE/MoNRE. Most industrial enterprises do not monitor the pollution they create.
- Limited human resources for the provision and dissemination of environmental information, as well as for environmental decision-making with adequate public participation. The staff of the National Environment Agency is still limited; except in large cities and provinces, most provincial environment offices have only four to five staff members.
- People's knowledge and awareness is still low, and this prevents the democratic process from being fully practiced.

The reasons for these inefficiencies are many. Among others, the following are important: laws are enforced, but by-laws and technical regulations are still lacking; public participation is not clearly defined; the necessary conditions for public participation are not provided; information systems are fragmented; mechanisms for legislative enforcement are still to be set up; and awareness of governance practices is weak. In such conditions, the responsible authorities are relatively free to interpret based on their knowledge and capacities. Even when willing to do their best, they have difficulty with proper implementation. Capacity building is sorely needed. Good results have been observed in projects with external funding and/or cooperation, and these could be seen as pilot models.

In practice, the lack of reliable information and the absence of well-organized services for information delivery to interested people are creating many difficulties in access to environmental information. Access to information concerning specific development projects, including environmental information, is still limited to those offices and organizations directly involved. To improve public access to environmental information,

it is necessary to elaborate and issue requisite legislative and administrative regulations, to better organize information services at various administrative levels, and to strengthen the capacity of local NGOs and mass media groups.

In principle, public access to environmental information and transparency in environmental decision-making exist in Vietnam, but the current framework is still far from effective.

Decision-making Processes and Opportunities for Public Input

Similarly, in principle there is support for public input into environmental decision-making in Vietnam. In practice, however, the current framework is ineffective. The overall process is such that provincial planning proposals are formulated in close consultation with line ministries before they are submitted to the central government through the Ministry of Planning and Investment for approval. Major development projects are studied by central agencies with the participation of local authorities.

Decisions relating to entire zones within Vietnam are made by the central government in consultation with relevant provinces and cities within that zone. The planning process is guided by the Ministry of Planning and Investment and finally appraised by an ad hoc central council. The responsibility for supervising and monitoring zone development plans falls directly to the government, mostly through its line ministries. An exception occurs when inter-provincial river basin organizations are established under the interpretation of some articles of the Law on Water Resources. On this matter, the law stipulates that integrated river basin planning must ensure the unified management of water resources in combination with the administrative system. There might be some practical difficulties in implementation, since relevant agencies in the administrative system generally have authority over the sub-basin areas lying within their jurisdiction, while the law stipulates that integrated river basin planning organizations are affiliated with the Ministry of Agriculture and Rural Development. Further improvement is expected with the establishment of MoNRE.

At the provincial level, there is an ongoing decentralization of functions and powers in the decision-making process. Provincial authorities are delegated the authority to make decisions about numerous issues related to the use and management of local natural resources and the environment. For example, in land use and management, the province has the power to establish land and territory use plans as well as to hand over land to organizations. The district has the power to hand over land to households and individuals.

At the grassroots level, a policy of community participation and socialization of socio-economic development and environmental protection is practiced. Mass organizations (e.g., Union of Women, Youth, Farmers, and Revolution Veterans) play an active role at the grassroots level. Recently, the Grassroots Democracy Decree (1998) at the commune level stipulated that people must be consulted on commune development plans, such as economic affairs and job generation, land use, water supply, and environmental sanitation, before the plans are decided on by the Commune People's Committees.

With the newly introduced participatory approach, communities have been encouraged to organize themselves for specific purposes, such as water use and environmental sanitation. New developments can be observed in irrigated fields. Under the Participatory Irrigation Management (PIM) schemes assisted by several donors, water users of on-farm irrigation schemes have been forming their own organizations (water user associations, water cooperatives), as they maintain their membership in different administrative communes. This form of water management was not initially supported by local administrative authorities. They finally supported the new management system after remarkable progress was made in maintaining a reliable water supply and in the full collection of water fees. PIM, however, has been developed slowly and needs to be formally introduced nationwide.

Environmental Impact Assessments (EIAs) have been required by law since 1994 for application to both operating enterprises and new projects, as one of the key tools in the decision-making process. EIA is applied largely in infrastructure development projects, such as hydropower, irrigation, transport, and industry projects. EIA reports are always appraised by an EIA Commission, which consists of scientists and managers and may also include representatives of social organizations and representatives of the population, before being approved by MOSTE/MoNRE. Community participation is thus mentioned, but only as optional and therefore not quite enforceable. Professional associations, such as the Vietnam Association for Conservation of Nature and Environment, are often invited to participate in EIA activities. It is, however, necessary to mention that the technical capacity for EIA among local professionals is still very limited, especially in the overall and strategic assessment of macro and long-term plans.

It is hoped that elsewhere EIAs will be done comprehensively and in the early phases of project conception and design. EIAs of many important projects were, in fact, carried out a long time after their pre-feasibility or even feasibility studies had been passed. Some large projects, such as the Yali hydropower plant, have been limited in their EIAs and resettlement plans to power plant and reservoir surroundings only. The National West Highway project started to organize greater public participation in environmental issues only months after the project's implementation had begun. In contrast to those experiences, the Son La hydropower project's feasibility study is being run better, that is, more prudently studied, with significant participation by national institutions, NGOs, and local people.

Current Contributions to Regional Environmental Governance

As a downstream country, Vietnam is conscious of both the quantity and quality of the water flowing downstream into its borders, as well as the possible reforestation of barren lands upstream. In the Mekong case, Vietnam is determined to effectively implement the Mekong Agreement for sustainable use of the Mekong's water resources, and to prevent as much as possible any negative impacts from the unsustainable use of water from upper parts of the basin. Vietnam is also eager to cooperate with China and Laos for the sustainable use and protection of Hong and Ca and Ma Rivers, respectively.

Vietnam is attempting to restrain itself in its use of water resources to avoid pressuring upper basin countries. Vietnam is prudent in dyking its Mekong branches, as it used to do for controlling seasonal floods, so as to avoid increasing flood levels in Cambodia's upper delta. Vietnam has adopted, instead, a policy of "co-existence with the floods." Vietnam is also keen to develop and facilitate international navigation along Mekong channels. The case of the My Thuan Bridge illustrates this policy. Instead of having a 25m vertical clearance bridge as justified well by future needs, Vietnam chose the Mekong option of 37.5m vertical clearance in order to accommodate Cambodian requirements. By doing so, Vietnam had to make a larger investment. The two countries later entered into a bilateral agreement on Mekong navigation and consolidated their cooperation in the field.

As an upstream country, Vietnam has obligations toward downstream neighbors, just as it requires from its upstream neighbors. The Upper Sesan is the major upstream river in Vietnam. As mentioned above, Upper Sesan hydropower potential ranks third countrywide and the Yali Dam, a major hydropower plant on the Upper Sesan, ranks second. The Yali project was identified in the 1960s by the Mekong Committee as one of the two most interesting projects (together with Nam Theun II in Laos) in the Lower Mekong Basin. The pre-feasibility study was undertaken in 1991 and 1992 with an EIA report financed by Switzerland through the Mekong Programme. The political context in Cambodia at that time prevented any access to Sesan downstream areas in Cambodia for inclusion in the EIA study. The report only covered the Vietnamese part of the river. The Vietnam National Mekong Committee did recognize its obligation to inform downstream areas about the potential impacts of upstream development. It notified the Cambodian National Mekong Committee about Yali project development at least twice. However, the two sides regretfully missed an opportunity to undertake an EIA study for Cambodia once the political stability at the sites allowed it.

As a hydropower plant, Yali's operation will have impacts on downstream areas, including both positive (increased flow in the dry season) and negative (a change in river ecology). A negative impact occurred during the project's construction in 2000. The operational test of Yali's hydraulic works did not take into account impacts on downstream areas and regretfully caused some damage to local people. The neglect by the hydropower developer was worse. Fortunately, the matter was brought in time to the attention of the Mekong River Commission (MRC), the right body in such an event. The Vietnamese Government and its Ministry of Industry gave timely instructions to Electricity of Viet Nam (EVN) and Gia Lai Province for the necessary mitigation measures and, most importantly, for future upstream/downstream collaboration mechanisms. Both the Cambodian and Vietnamese sides have had constructive discussions with mutual understanding. Meetings between Cambodian and Vietnamese Committees for the Management of the Sesan River were organized with the MRC Secretariat acting as facilitator and observer. In one of their periodic meetings in April 2002, both sides agreed to undertake EIAs and hydrodynamic modeling studies along the Sesan River in Cambodia with financial support from EVN and SWECO and Statkraft Groner as international consultants.

At the same time, there is recognition that among the Vietnamese, the concept of Vietnam's own upstream obligations was still vague. Vietnam therefore needs to be

aware and to educate stakeholders, including local populations and authorities and relevant central agencies.

Prospects for Improved Regional Environmental Governance

Natural resources and the environment have a regional nature. While regional water resources issues are characterized and limited within each watershed, environmental issues are not. A larger framework of regional institutions is needed if protection of environment is the aim.

The principles of sustainable use of resources and protection of the environment are generally adopted by governments. Discrepancies remain, however, with the mechanisms for promoting and translating them into practice. Regional institutions should first of all adapt themselves to these principles and should be among the most active stakeholders in playing a promoting role. This promoting role should start with awareness raising, focusing on general public awareness among decision-makers and grassroots people.

There is no single agency or organization that can effectively address regional and transboundary environmental challenges on its own. This task requires coordination based on the strengths and weaknesses of existing regional institutions. Among the regional institutions cited above, the MRC's strengths are in managing, at the Lower Mekong Basin level, the operational water and related resources database, the permanent hydrology measurement and water quality monitoring network, and the day-to-day communication and hydrology forecasting system between the MRC Secretariat and the four National Mekong Committees and National Hydro-Meteorology Services. The active participation of nationals, whether governmental or non-governmental, is a prerequisite. They are the ones who translate regional findings into country strategies and programs and implement them.

In Vietnam, external donors also give priority to resources and environment sectors. Through technical assistance and research studies, they have contributed substantially to the transfer of modern concepts, such as sustainability, efficient and effective governance, new good practices, and capacity building. In sum, they have contributed to a change in thinking and behavior with a view to broader vision, integrated action, and stronger ownership. Recently, national stakeholders expressed their desire to see more effective coordination among donors, in conjunction with their support to national governance reform.

Regional efforts can and should help in policy dialogue, human resources development, mutual understanding among the region's people, and conflict resolution. The effort should not be to mobilize so as to compete successfully, but to cooperate in reconciling competing needs. The concept of a Mekong region, instead of a Mekong basin, with five countries and one Chinese province is still questionable in terms of how study outputs within such a framework would be further delivered to relevant governments for consideration.

Summary and Recommendations

Improving environmental governance arrangements and processes at the national level should be promoted and implemented as a basic condition for improving environmental governance arrangements and processes at the regional level. It is important to recognize that regional trends will likely influence national ones.

National environmental governance concerns and issues may be summarized into the following elements:

- Enabling environment, including the general framework of national policies, legislation, regulations, and financing for the sustainable management of natural resources and environmental protection.
- Institutional framework, both within the general administrative structure, and within the river basin in the case of water management.
- Incorporation of environmental issues into national socio-economic plans.
- Decision support system in planning and prioritization, including the provision of the information and tools required to guide rational allocation and management decisions, in a combination of regulatory and economic instruments.
- Effective coordination among agencies.

Environmental governance arrangements and processes at the regional level, while supporting national efforts, could also apply their principles by focusing on transboundary issues. Elements for improvement may consist of:

- Promotion of regional cooperation and agreements, which are legal frameworks for effective cooperation.
- Cooperation on environmental governance should be oriented to strategic and cross-sectoral matters, such as awareness raising, information exchange, EIA information dissemination, capacity building, and coordination of criteria and guidelines.
- Cooperation on water resources governance should have a basin approach and should be institutionalized under river basin organizations. The Mekong River Commission should be further supported and strengthened. Cooperation on other shared river basins should be promoted and should be institutionalized under appropriate forms.
- Exchange of experiences among environmentalists and managers on the formulation and enforcement of regulatory and economic instruments.
- Closer cooperation between governmental organizations (national and regional) and international and local NGOs in the promotion of public participation, especially participation of minority ethnic groups and affected people.