

BIODIVERSITY AND DEVELOPMENT OF THE HYDROPOWER SECTOR: LESSONS FROM THE VIETNAMESE EXPERIENCE

The Use of Strategic Environmental Assessment as an Assessment Tool

Introduction

Vietnam is strongly committed to the use of Strategic Environmental Assessment in shaping development plans. With special legislative provision for SEAs under the Law on Environment Protection and their increasing application to socio-economic and land use plans at national and local level the tool is gradually beginning to have strategic influence. Yet, experience in Vietnam has shown that SEA teams are having difficulty in integrating biodiversity concerns into the assessments. Major development plans are still going forward with decision-makers and planners unaware of far reaching consequences for ecological sustainability.

This policy brief summarises a simple and locally relevant SEA methodology that can be employed to evaluate the impacts of a hydropower development plans on biodiversity. The methodology is for use in the assessment of national, provincial or river basin level impacts on biodiversity.

The overarching purpose of an SEA is to assess the risks and opportunities associated with a major strategic decisions so that planners are better informed of the trade-offs involved between sectors, areas and communities and take into account the interests and views of stakeholders. Usually an SEA is conducted as part of formulating a development policy or plan. It seeks to enhance the sustainability of the policy or plan, which by definition includes assessing the balance between economic, social and environmental considerations for current and future generations.

The main advantage of SEA is that it is able to influence change at a higher geographic or strategic level than EIAs. Infrastructure developments such as dams are approved at different levels, constitute different scales of impact, and have the potential for significant cumulative impacts. SEA is a useful tool to assess projects collectively and influence their planning, development and operation. The ideal structure is to fit SEA and EIA processes into a wider economic and spatial planning framework so that SEAs inform and guide project EIAs.

To be most effective, SEAs are best carried out as part of the planning process, using quick appraisal techniques so that results remain fresh and relevant to decision making. SEAs are much less effective as a “stand alone” procedure, a one-off event or as a “mega-EIA” which cannot be replicated as a normal part of the planning process.

The Convention on Biodiversity promotes the use of SEAs and adopts a working definition of them as a “systematic and comprehensive process of identifying and evaluating the environmental consequences of proposed policies, plans or programmes to ensure that they are fully included and appropriately addressed at the earliest possible stage of decision-making on a par with economic and social considerations” (COP 6 Decision VI/7). The main purpose of this brief is to elevate

biodiversity and ecological concerns to a level on par with economic and social considerations in SEA processes.

History and framework for SEA in Vietnam

In 2005, the requirements for SEA were laid down in Articles 14-17 of the Law on Environmental Protection (LEP).¹ Article 14 of the LEP requires SEA to be carried out on mandatory basis for a wide range of national, provincial and inter-provincial strategies, planning and plans. Rules for conducting SEAs are set out in Article 15. SEA reports need to be prepared by agencies that formulate relevant strategies and plans. They must be prepared concurrently with plan formulation and contribute directly to its content.

These framework requirements are refined in the MONRE Circular No. 08/2006/TT-BTNMT, which details the SEA procedure and contents. The circular requires plan “owners” to set up a working group to conduct the SEA. Assessments must cover environmental factors and information on social and economic implications. In this sense, SEAs in Vietnam are similar to a sustainability analysis that covers environment, social and economic effects of a plan.

Article 17 sets procedures for review of SEA reports. They are to be appraised by a review council and the results of the review must serve as the basis for the approval or otherwise of the plan. MONRE is responsible for organizing review councils for strategies/plans approved by the National Assembly, the Government and the Prime Minister. Line ministries, ministerial level agencies and Government bodies set up review councils for strategies and plans approved within their competencies. Provincial Peoples Committees organize review councils for strategies and plans decided by the Provincial People’s Committees or by People’s Councils.

Public participation

Article 17 also provides rights to organizations and individuals to submit their comments during the review of SEA Reports. Comments can be submitted to relevant environmental protection agencies responsible for establishing the review council or to agencies that are responsible for approval of the proposed plan. The review council and the agencies responsible for strategy and plan approval must consider public comment received before making their decisions.

Initial experience with pilot SEAs dependent entirely on local resources show that public participation will be one of the most challenging aspects of the process. Key problems are a lack of dedicated funds for the purpose, little guidance on how to make it work in practice, and a tendency to treat data as a source of revenue and power. These are challenges faced by most countries during the early days of EIA and SEA systems. Resistance within government to sharing data and a narrow sectoral approach to development planning will be difficult and lasting obstacles to implementation of transparent and effective SEA in Vietnam.

¹ Detailed operations measures for SEA are set out in:

- Government’s Decree on implementation of some Articles in the LEP (No. 80/2006/ND-CP, August 2006); which guides implementation, reporting and appraisal arrangements and includes a detailed list of strategies and plans that require SEA. The decree also outlines institutional responsibilities for SEA and SEA reporting requirements.
- Government’s Decree on implementing SPPs and development projects (No.140/2006/ND-CP, November 2006) which delineates core responsibilities to various government agencies in the planning process,
- MONRE Circular on SEA, EIA and Environment protection commitment (No. 08/2006/TT-BTNMT, September 2006) which provides detailed guidance and instructions on the implementation of the LEP provisions relating to SEA. Annex 1 of the circular sets out the required contents of an SEA report.

Administrative arrangements

In Vietnam, MONRE oversees SEAs for proposals submitted to the Prime Minister, National Assembly or the Government. DONREs are in charge of SEAs at provincial levels. DONREs are under the direct supervision of the Chairman of the Provincial Peoples Committee. Decree No.140/2006/ND-CP determines that MONRE will be a key organization to collaborate with the Ministry of Planning and Investment, other line Ministries and Provincial Peoples Committees during monitoring and inspecting of SEA implementation.

Hydropower and biodiversity

What is biodiversity?²

Biodiversity is “the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems” (Convention on Biological Diversity (1992), Article 2). In other words, it is the variety of life on earth at all levels, from genes to populations of the same species; from communities of species sharing the same local habitat to basin wide ecosystems.

The Vietnam Biodiversity Law 2009 defines biodiversity as the abundance of genetic resources, species and ecosystems in nature. The Law defines biodiversity conservation as “the protection of the abundance of natural ecosystems which are important, specific or representative; the protection of permanent or seasonal habitats of wild species, environmental landscape and the unique beauty of nature; the rearing, planting and care of species on the list of endangered precious and rare species prioritized for protection; and the long-term preservation and storage of genetic specimens.”

Hydropower and biodiversity

Producing electricity through hydropower avoids the burning of fossil fuels or creation of toxic waste and relies on a fuel source that is naturally regenerated and abundant. Hydropower has long been considered a renewable form of power and placed in the same category as wind and solar power as one of the sustainable or ‘green’ energy sources. In general, at a global level, more dams means less thermal power stations, and that in turn means less CO₂ and reduced climate change, which is better for biodiversity and humanity alike.

At the local or even national and international level however, inappropriate and excessive damming on the same river can negatively impact biodiversity and ecological sustainability – for this reason in Vietnam, only hydropower projects of more than 30MW are categorised as renewable. Dams and their reservoirs have the potential to flood areas of forest and terrestrial habitats. They create new access routes into forested areas facilitating increased exploitation and opportunities for settlement and new socio-economic incentives to illegally gather natural resources. They lead to significant ecological changes within the river and coastal aquatic system so that migration, feeding and breeding of some aquatic species is impeded and habitats fundamentally altered. Also, reservoirs in tropical environments can result in significant GHG emissions during construction and operation which contribute to the long terms climate change effects on biodiversity.

² Adapted from South West Ecological Surveys, Levett-Therivel sustainability consultants, 2004, Strategic Environmental Assessment and Biodiversity: Guidance for Practitioners - http://www.environment-agency.gov.uk/static/documents/Research/sea_and_biodiversity_839620.pdf

SEA principles for safeguarding biodiversity

SEA's are intended to help achieve a high level of environmental protection so that the natural systems underlying economic and social development are maintained. SEAs are identified in key international agreements to which Vietnam is a signatory (notably the Convention on Biodiversity and the Ramsar Convention) as an important tool for promoting the conservation and sustainable use of biodiversity.

The Convention on Biological Diversity requires Parties to integrate as far as possible the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans and programs.

In achieving that role in development planning, SEA's need to promote two key principles:

*The **no net biodiversity loss principle** which requires the status quo to be maintained in terms of quantitative and qualitative aspects of biodiversity (how much is there, what there it, how it is structured and distributed). Vietnam has committed to this principle through the international agreements it has joined.*

*The **precautionary principle**, implies a presumption in favour of biodiversity protection where the knowledge to ensure effective mitigation or compensation for a significant adverse impact is lacking. It should also apply in situations where there is sufficient evidence to suggest that adverse impacts are possible, but not necessarily proven.*

In applying those principles, SEAs should follow a proactive sequential approach:

1. Avoiding biodiversity loss or damage
2. Enhancing biodiversity where possible or securing opportunities for recovery
3. Compensating for unavoidable loss of biodiversity
4. Consolidating and generating information on biodiversity.

As a first step, damage to biodiversity should be avoided. Mitigation is applied only where impacts cannot be avoided and there are no alternative solutions. In particular, damage and loss should be avoided where biodiversity is particularly high, rare, threatened and difficult to replace or substitute. Opportunities to enhance biodiversity should be sought wherever possible.

A first step is for SEA's to define and recognise areas of biodiversity importance in the affected geographic region. That will include officially established protected areas and importance biodiversity areas beyond their boundaries. The Biodiversity Law and Forest Law both have strong provisions for safeguarding protected areas, especially their core conservation areas. SEAs need to ensure that the management and conservation requirements relating to protected areas are understood and met. That applies to all categories of protected area, whether established under the Forestry Law as Special Use Forest, under the Fisheries Law as marine protected areas, or under various international agreements such as Ramsar sites, World Heritage areas or biosphere reserves.

SEAs should also address the requirements of protected species and their habitats outside protected areas. For example, the Vietnam Biodiversity Law provides for the conservation of biodiversity corridors, which it defines as an area connecting natural ecological regions in which organisms living in these regions can interact. Special regulations relate to the protection of rare and endangered species. National and provincial Biodiversity Action Plans reinforce and detail actions for conserving

species and their habitats outside protected areas through ecosystem and landscape approaches. SEA should identify and recognise biodiversity corridors and other sensitive areas which make a significant contribution to the habitat requirements of protected species, or which link such habitats.

Stages in the SEA process

An SEA process follows four basic steps (Figure 1). At each step there are important opportunities for considering biodiversity.

SCOPING: The first step is to settle on the boundaries, coverage or scope of the assessment. Scoping provides an early opportunity to consult relevant stakeholders concerning the key issues of focus, the assessment methods, phases and outputs, the required data, its sources and level of detail, and any requirement for additional studies if the data is not available. The scoping phase also defines who should be consulted, how and when. Often the scoping process can continue as the SEA progresses and more information comes to hand.

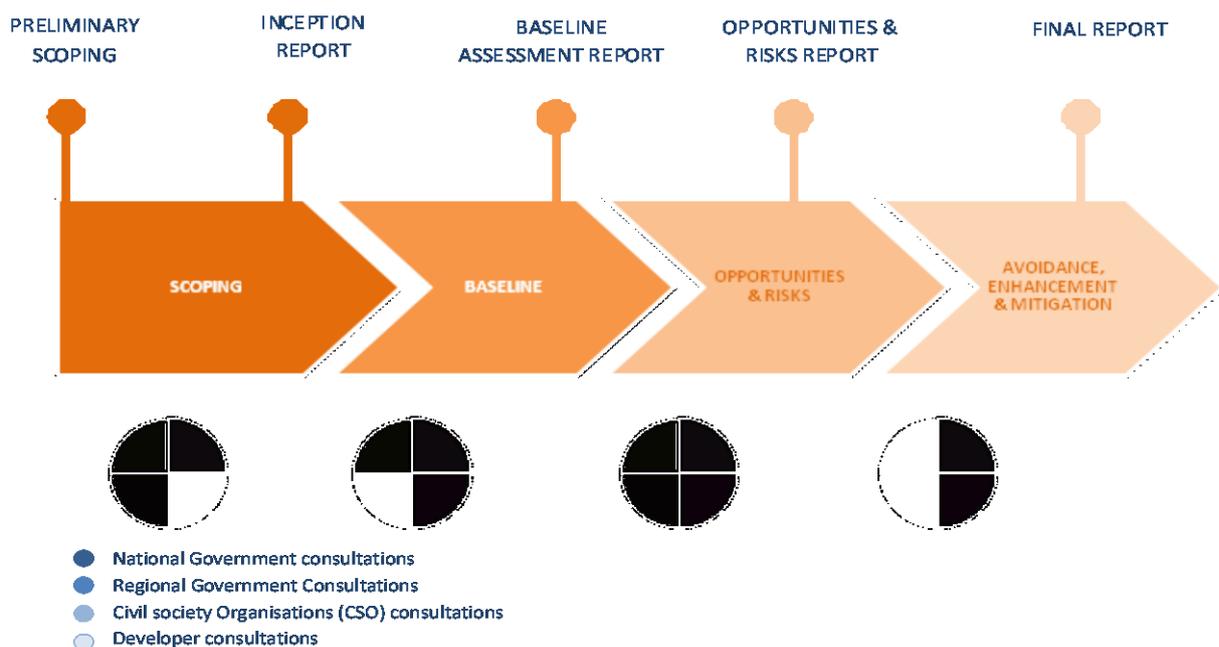
BASELINE ASSESSMENT: The second step is what is referred to as the baseline assessment. This step involves gathering information on the most important development and environmental concerns and analysing their past trends and current status.

IMPACT ASSESSMENT: The main purpose of the SEA is addressed in the third step. At this stage the risks and opportunities from the proposed mainstream projects for the strategic development concerns are assessed.

AVOIDANCE AND MITIGATION: The fourth step involves defining measures to enhance the benefits and to avoid or mitigate the negative effects of the proposed plan and its projects.

Figure 1 sets out a progressive reporting process so that government agencies and other stakeholders have an opportunity to shape the SEA at each stage.

Figure 1: The main stages in an SEA and examples of reporting and consultative approaches



Conclusions

The SEAs conducted into hydropower planning in Vietnam and the Lower Mekong Region permit some conclusions to be drawn regarding the relationship of hydropower development and biodiversity values and its policy and management implications for EVN, MOI, MONRE and other Vietnamese government agencies. They also provide important lessons for the application of SEA as a planning tool in the power development sector.

Integrating biodiversity values into hydropower planning

Foremost, past SEAs underline the potential cumulative risks and impacts on biodiversity of the numerous dams being construction or proposed under national and provincial Power Development Plans, both in terms of their aggregate footprint and spatial concentration in all Vietnam's major river basins. In these basins, fully implementing current hydropower plans will lead to a total transformation in hydrology and aquatic systems with unknown implications for the environment and overall development and social well being. Other developments in transport, agriculture, forestry and settlement are likely to extend or intensify these losses.

Baseline trend analysis suggests that natural habitats will continue to be fragmented, degraded and lost as a result of a range of development activities. Increasingly, these habitats will be restricted to areas defined by remoteness, high elevation, steep topography and other factors that limit their suitability for agriculture or production forestry but correspond closely to those suitable for hydropower development. Over the national Power Development Plan period to 2025, natural habitat losses or degradation associated with hydropower development is predicted to increase significantly. The cumulative impacts will include fragmentation of terrestrial wildlife corridors, fundamental changes in aquatic systems and diversity, increasing use and exploitation of watershed natural resources, threatening ecosystems and species that are nationally as well as globally important.

Biodiversity conservation is a foundation of environmental and development sustainability. This is Millennium Development Goal number 7 on which the achievement of the other goals is said to depend as it is a critical building block of poverty alleviation.³ Ecosystem goods and services are now recognized as the essential wealth of the rural poor and fundamental to the prospects for sustainable livelihoods. Their loss and degradation correspondingly reduces the opportunities for pro-poor sustainable development and increases rural impoverishment.⁴ For all of these reasons, *EVN and the Government of Vietnam should give higher priority to integrating biodiversity protection into hydropower policy making and planning to manage the potential risks and impacts of the planned development.*

Three broad courses of action should guide this approach:

Risk appraisal of the portfolio of hydropower projects that are being implemented and planned under the PDP VII to check if environmental liabilities or the full costs of mitigating them to international standards have been accounted and how the risks of biodiversity loss might be better managed or opportunities for pro-poor benefits might be secured. This evaluation should consider the pros and cons of a range of strategic options, such as:

³ UNDP, UNEP, IIED, IUCN, WRI (2005) Environment for the MDGs: A Message to the 2005 World Summit, UNDP, New York and UNEP, Nairobi, p4

⁴ WRI et al (2005) *World Resources 2005* op cit; and World Bank (2004) *Ensuring the Future* op cit.

- i. Scaling back the Plans at national and provincial levels (e.g. by not proceeding with certain high risk projects or reducing their concentration in high risk, biodiversity rich river basins)
- ii. Slowing the pace and phasing of Plan implementation while so many uncertainties remain on its impact on biodiversity and on ecosystem well being
- iii. Substituting for losses through other supply-side energy alternatives and securing eco-efficiencies through demand management

It is recognised that EVN is under considerable pressure to respond to growth trends but such adjustments could repay long term dividends in the form of direct savings, reduction of marginal costs and better risk assurance and management. Also, it would demonstrate a more precautionary approach to development of the sector which needs to be followed throughout the Mekong region as advocated in the MRC SEA of Mekong mainstream hydropower.

Environmental and biodiversity protection instruments are needed applicable to hydropower development at the national level with specific reference to the mitigation hierarchy of avoid, minimise and compensate or offset. Key policy options which SEAs need to promote are:

- i. **Restricted river transfers policy:** Avoidance of trans-basin/river water transfers to prevent introduction of exotic species
- ii. **Intact rivers policy:** Protection of high-value or representative rivers or watersheds in their natural state (supported by clustering of hydropower projects or their concentration in particular basins or parts of basins)
- iii. **Environmental flows policy:** Maintaining optimal downstream environmental flows (uniformly or particularly for rivers with high freshwater biodiversity values)
- iv. **Conservation offsets:** Provision for equivalent or nearest comparable offsets for all critical habitat loss or deterioration
- v. **Payments for ecosystem services:** Fair valuation of losses and payments for maintenance of ecosystem services such as enhanced watershed protection

Some of these policies are already expressed in Vietnamese laws and regulations, such as payments for ecosystem services. SEAs need to identify how these sustainability policies can be promoted through existing legal and policy frameworks in Vietnam.

This mix of strategic mitigation instruments and their application and promotion through SEAs to address the cumulative risks and impacts of hydropower development needs to be a focus for dialogue between the Government of Vietnam, its riparian neighbours and international development and financing organizations.

Integrated river basin planning and project design to safeguard critical biodiversity assets and minimise the footprint of hydropower at the regional level. This should include steps and measures to inventory and secure any unprotected sites of global biodiversity importance (i.e. Key Biodiversity Areas) as well as to ensure, as far as possible, that designated protected areas are not adversely affected by hydropower development. In addition, the comparative risks and impacts to terrestrial, freshwater and socio-economic biodiversity values should be assessed within a basin or regional ecosystem framework to identify optimal siting and sequencing of projects (balancing economic, environmental and social criteria). Such regional assessments should be carried out on a priority basis, particularly in basins with few or low-resolution data and according to their biodiversity risk classification. The highest risk basins should be targeted as a demonstration project to establish good practice and with specific attention to the most prevalent biodiversity issues and impacts of

projects identified in this study (e.g. freshwater habitat loss due to inundation or altered flow regime and with regard to proposed actions in other sectors.

Drawing attention to these issues and options underlines how important the SEA process can be in improving upfront decision making and in bringing information to bear that is relevant to risk assurance and forward planning in the hydropower sector.

Lessons learned for SEA in addressing hydropower expansion

There are four potential uses or applications of SEA methodology to the hydropower sector to enhance integration of biodiversity concerns at strategic planning levels:

Screening tool for planning future hydropower projects

SEAs to date direct attention to high risk basins proposed for intensive hydropower development, such as those located on the Annamese slope, and to projects proposed in, or near, areas of high intrinsic biodiversity value, such as high altitude rivers, karst systems, and peat swamps. These areas and projects are likely to require the most intensive and detailed planning and the most thorough safeguards and mitigation measures. As an ‘early warning’ tool, this approach facilitates an ‘anticipate and prevent’ strategy in which a full range of alternatives and adjustments can be considered to avoid damage and manage downside risks. Already, the failure to respond to the findings of past SEAs is leading to serious actual or potential biodiversity losses such as those related to the cascade development on the Dong Nai River and its impact on Cat Tien National Park. There are many similar examples throughout Vietnam of hydropower development going beyond the capacity of rivers for ecological sustainability.

Screening and scoping to focus further assessments

The past SEA’s of the PDPs provide project and basin classifications which indicate where further, more intensive assessments (whether basin-wide SEAs or project EIA) are likely to be needed in order to identify significant impacts and measures to avoid or mitigate them. Past SEAs have helped to streamline and focus more specific SEAs or project EIA on the areas and issues that matter most to the maintenance of natural systems and biodiversity.

Identification of highest impact hydropower projects prior to investment

The SEA approach has potential applications for EVN business decision-making and priority setting. Specific information from SEA reports will be of most importance to forward planning if ‘environmental risk premiums’ have not been factored into budget estimates or into policy considerations for the portfolio of hydropower projects. Going forward, better risk assurance will be most relevant with regard to calls for investment for potentially high impact projects (particularly if international financing is being sought) but even where construction has begun in such cases managers might want to reappraise their cost-benefit ratio or contingency allocations.

Identification of strategic issues and impacts, enabling efficient system-wide avoidance and mitigation

Past SEAs have identified relative frequency with which issues caused projects to be classified as ‘high’ or ‘very high’ potential impact. Such systemic impacts can be addressed at the national or basin-wide level through the policies or planning approaches described above.

These four applications illustrate how SEA can improve the quality and efficiency of project specific EA, notably by focusing the effort of project-level analysis and effecting time and cost savings; and contribute to upfront decision making, for example by providing early identification of key issues

prior to project investment and processing and developing program level approaches to manage biodiversity issues.

Strengthening data and knowledge

SEAs have encountered a number of data and knowledge constraints related to Vietnam's biodiversity, particularly for freshwater and socio-economic values. There is a critical lack of material and expertise in these areas. Overcoming these limitations requires a long term, systematic investment in inventory, data management and training, for example with regard to aquatic ecosystems.

However, these deficiencies are not confined to biodiversity and the larger issue for capacity-building is how SEA in Vietnam can be robustly applied in a data-constrained context. Priorities for addressing the most critical knowledge gaps need to be set. More critically, baseline studies need to be adapted to compensate for and begin to fill in deficiencies on a continuing basis.

Strengthening environmental policy and governance

Past SEAs highlight the urgent challenge of integrating biodiversity into hydropower planning. Given the potential risks and impacts associated with the Power Development Plan, it seems evident that hydropower planning has paid limited attention to environmental and biodiversity considerations. This is particularly the case at the strategic level 5 but it is also reflected in reported shortfalls in project design and implementation (where safeguards mitigation, analysis of site alternatives and monitoring fall short of internationally accepted practice). Both areas need to be addressed as part of work to improve Vietnam's capacity to address cumulative environmental and social risks and impacts of hydropower development.

The reasons for this situation are understandable and lie in the economic growth pressures and policy 'drivers' that encourage EVN, MOIT and other government authorities to take a maximisation approach to expanding energy capacity by 2025. Generally there appear to be few incentives for EVN or the MOIT to mainstream these issues into energy policy and plan options. This challenge can be best addressed at its institutional source. A systematic approach to mainstreaming the environment in hydropower planning calls for a restructuring of the policy and governance regime involved to ensure these considerations are taken into account in all aspects and levels of decision making including policy orientations, development planning, budgeting and hydropower design.

Building such a regime will be a long term process, one that requires a joint commitment from MOIT, EVN and MONRE to policy, structural and procedural innovation and increased staffing and resources for the purpose. It also requires commitment from international development agencies to technical assistance and support. It involves the design and institutionalisation of values, norms and rules to express and guide agencies in managing environmental assets in support of sustainable energy development.

The broad courses of action and consideration for mainstreaming biodiversity and the environment identified in this chapter provide starting points for dialogue and action with EVN and MOI to strengthen the current regime.

Specific emphasis should be given to economic tools and measures for gaining a firmer grasp of the opportunity costs associated with the cumulative effects of hydropower development on the environment, including loss of ecosystem goods and services for Vietnamese society in general and

⁵ For example, the 6th and 7th Power Development Plans have made limited reference to environmental values

for dependent communities in particular. This approach should prove helpful in substantiating losses, particularly where these are to be offset or where vulnerable communities are to be compensated for disproportionate impacts, and in evaluation of alternative energy options or dam sites within river basins.

Supporting SEA process development and good practice

Key requirements are for long term SEA strengthening within MONRE, provincial DONRE's and key line ministries and sectoral agencies. An initial, two to three year support project should be mounted which helps MONRE and selected line ministries (for example, MOIT in the case of energy development and MOT for transport) build the staff capacity, the procedures and working arrangements for effective implementation of the new SEA requirements.

Priorities for supporting SEA process development and good practice include the following areas:

Process development

Establish a vertically integrated or 'tiered' SEA-EIA system for the hydroelectric and other key development sectors in Vietnam

This framework should incorporate a series of instruments applied to each level of decision-making at an appropriate scope and level of detail. Each stage should set the context and basis for the next, beginning with SEA of policy and moving down through sector programs and river basin plans and culminating in project-specific EIA of individual hydro projects. Such a system would provide the basis for the systematic consideration of the full range of demand, supply, location and environmental management alternatives in hydropower decision making and anticipating and managing cumulative effects at the watershed level.

For example, the SEA process should be applied first at the highest policy level to determine the appropriate mix of demand and supply-side alternatives; second at the energy sector plan level to determine the optimum supply mix; third at the hydropower plan level to allocate priorities on a geographical basis; and fourth at the regional or basin level to assess optimum siting alternatives. The river basin level of assessment is especially important at Vietnam's current stage of development and the level at which the international support is most needed.

SEA good practice

Initiate demonstration projects of SEA and EIA good practice that show how to mainstream environmental/biodiversity considerations into hydropower planning and project design, construction, and operation

From a practical perspective, a crucial priority is to build quality assurance and safeguards into the tiered SEA and EIA process. This can be best done through a 'hands on' demonstration of exemplary good practice, ideally carried out through Bank-specific requirements for analytical and assessment work in connection with financing provided for hydropower development in Vietnam (understood to be pending). In that case, the focus should be on how to show ensure that EVN (or a provincial proponent) meets standards of due diligence and good practice. This should extend beyond the EIA level to focus on the appropriate prior level of SEA process that can provide assurance that an appropriate framework is in place.

Specifically, international organisations should support SEAs of hydropower plans for river basins at high risk. These should be undertaken to demonstrate good international practice. In addition,

support should be given to an EIA of a specific project with particular application to mitigation safeguards by MONRE, EVN and MOIT. This should be undertaken as a basis for learning and disseminating the lessons and, as appropriate, incorporating them into Vietnam-specific good practice guidance (and practical supplements to OECD DAC guidance to provide wider international exposure).

More ambitiously, MONRE and EVN should consider undertaking a mid-term review and SEA of the 7th Power Development Plan, MOIT should be supported to undertake an SEA of its National Plan for Small Hydropower Development, and each province with hydropower potential should be encouraged to prepare SEAs of their power development plans. This would require a coordinated, high level of support by international development agencies. Each of these SEAs should be guided by the principles and approaches set out in this volume.

This brief is part of a set of good practice materials on “*Biodiversity and Development of the Hydropower Sector: Lessons from the Vietnamese Experience*” that have been designed to widen understanding of the relationship between hydropower and biodiversity, and to provide guidance on the use of SEA as a planning tool. These resource materials are intended to support hydropower as a central part of Vietnam’s power generation sector for decades to come, without contributing to destruction of the nation’s rich biodiversity.

This volume focuses on SEA and the ways it needs to be used to better address biodiversity concerns. It is based on ICEM **Volume II – Hydropower and Biodiversity: The Use of Strategic Environmental Assessment as an Assessment Tool**.

This set of good practice manuals has been prepared by ICEM – International Centre for Environmental Management. *Biodiversity and Development of the Hydropower Sector: Lessons from the Vietnam Experience* was sponsored by a grant from the Critical Ecosystem Partnership Fund (CEPF). CEPF is a joint program of *l’Agence Française de Développement*, Conservation International, the Global Environment Facility, the Government of Japan, the MacArthur Foundation and the World Bank.