

The Ramsar Convention in Lao PDR

“Ramsar promotes integrated approaches to managing wetland systems so that human uses of these areas are undertaken to retain their natural values and ‘capital’ for future generations.”

Ramsar Secretariat, 2006

Lao PDR's wetlands and water resources are unique assets, integral to the country's economic and development potential, rural and urban livelihoods, cultural values, and environmental biodiversity.

The Ramsar Convention is one mechanism that offers Lao PDR the means to manage wetlands sustainably.

The Government of Lao PDR has made significant progress towards ratifying the Ramsar Convention; however, the final step still needs to be taken.

Siphandone wetlands have been nominated as the inaugural Ramsar site in Lao PDR yet the proposed Don Sahong dam poses a threat to its creation.

The Ramsar Conference of the Parties (COP) 10 will be held in October 2008. This is an excellent opportunity for the Government of Lao PDR to demonstrate their commitment to balance both development and environmental priorities, and ratify the treaty.

The Ramsar Convention on Wetlands of International Importance (hereafter referred to as the “Ramsar Convention”) officially came into being in 1971 in the city of Ramsar, Iran.

The Ramsar Convention is an intergovernmental treaty which provides the framework for “the conservation and wise use of all wetlands” and is involved in protecting all water-based ecosystems, permanent or temporary, natural or human made, that are not deep ocean waters.” (Ramsar, 2006)

In the context of Lao PDR a wetland can include both permanent and seasonally inundated areas, such as lakes, reservoirs, rivers, streams, ponds, canals and rice fields.

In order to accede, potential contracting parties to the Ramsar Convention identify an appropriate wetland site in their country and complete a Ramsar Information Sheet (RIS). Wetlands are selected for the Ramsar List according to their international significance in terms of ecology, botany, zoology, limnology, or hydrology which form the basis of the RIS criteria that are used for judging the suitability of a potential Ramsar site.

The Ramsar Convention provides a framework for regional

collaboration with other international conventions such as the Convention on Biological Diversity (CBD), Framework for Climate Change (UNFCCC) and World Heritage.

Although Lao PDR has been steadily working towards accession of Ramsar it is the only Lower Mekong country yet to accede. Vietnam (1989), Cambodia (1999) and Thailand (1998) have already joined. In the ASEAN region, only Brunei and Singapore have not ratified along with Lao PDR.

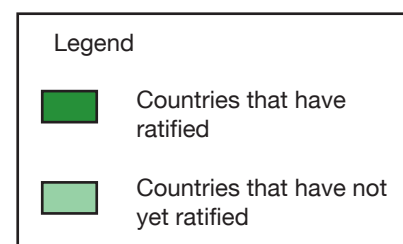


Figure 1: Parties to the Ramsar Convention in the ASEAN region

Source: © Department of Environment, Lao PDR,

Why are wetlands important for Lao PDR?

- Approximately 35% of the total water flowing into the Mekong Basin in the dry season originates in Lao PDR (WorldFish Center, 2005) and the Mekong Basin itself covers 88% of the country's total area (MWBP, 2005).
- In all, approximately thirty wetlands in Lao PDR have been identified that are of international or national importance and meet at least one of the criteria for designation as a Ramsar site (Claridge, 1996).
- The total economic value of wetlands in Lao PDR (natural and man-made) is estimated at US\$2.26 billion per year (IUCN, 2005).
- Between 6-8% of Lao PDR's GDP comes from wild capture fisheries which comprise 78% of the country's total fish production (WorldFish Center, 2003). Present fisheries yield is approximately 133,000 tonnes per year for Lao PDR (Baird, 2004).
- Local livelihoods and national economic benefits dependent on fisheries and wetlands are significant. Currently, the combined fishing catches of Lao PDR, Cambodia, Vietnam and Thailand are estimated to be worth US\$2 billion a year, providing food and income for approximately 60 million inhabitants, in the Lower Mekong basin (Globe, 2007).
- Man-made wetlands such as rice paddy fields and urban wetlands are usually not recognized as wetlands, yet they provide numerous and substantial nutritional, livelihood and economic resources.
- In Lao PDR aquatic resources are particularly important for the rural population, and often include the poorest groups in society. Frogs, molluscs, turtles, and shellfish are important sources of food apart from fish (MWBP, 2005). Aquatic plants are also used for food, building materials, medicine, or ornamental purposes.



Photo: A local Champassak fisherman catches a Giant Mekong Catfish © Suthep Kritsanavarin, 2006



Photo: Boat racing on the Mekong, Lao PDR © MWBP, 2007

- Fish and aquatic resources are the main source of protein and fat in peoples' diets in Lao PDR. Wild fish are eaten by approximately 81% of households on a regular basis, other aquatic animals by about 55% of households, and 20% of the population harvest fish from fish ponds (WFP, 2006). Food insecure households in Lao PDR tend to be those that record low engagement in fishing and hunting. Ensuring sustainability of these food gathering activities thus needs to be a priority (WFP, 2006).
- Wetlands provide a range of other indirect ecosystem services such as water retention, purification, and flood protection, and these values should be internalized when calculating the economic value of wetlands.
- Lao PDR, within the Mekong catchment zone, may represent the most important country in South East Asia in terms of fish biodiversity (Warren, 2004).
- Animal biodiversity within wetlands in Lao PDR is high, although many important bird, turtle, and mammal species are now on the verge of extinction, critically endangered, or highly threatened due mainly to external, human-induced factors (IUCN Red List, 2007). Decreased biodiversity leads to weaker ecosystems and loss of livelihoods for local populations.
- The Mekong River and its tributaries are major navigation, trade and transport routes that are extremely important for trade access and markets, and public goods and services especially given the present poor condition of Lao PDR's road and air infrastructure. Regionally, the major rivers connect the Greater Mekong Sub-region utilising the country's central geographic location.
- The cultural and aesthetic values inherent in wetlands are important in their own right, yet also increase the value of wetlands as tourism destinations. The Chao Mae Pa festival in Lao PDR and Thailand celebrates the Giant Mekong catfish. A female deity that protects the catfish is given alms during this occasion, and fisherfolk draw straws to see who will cast the first net. Boat races and other activities attract local and foreign crowds each year.

Why is the Ramsar Convention important for Lao PDR?

1. To ensure there is a balance between competing priorities of economic growth, livelihoods, biodiversity, and cultural values in wetlands.

Lao PDR has many internationally significant wetlands including the Mekong River, the Khone Falls-Siphandone complex, the Xe Pian-Xe Khampho-Boung Nong Ngom complex, the Xe Kong plains, the Xe Champhon-Nong Luang wetlands, and the Nakai plateau (see Figure 4). The Mekong River and tributaries are some of the most important wetlands in the country for biodiversity and socio-economic reasons. The Ramsar Convention promotes integrated wetland planning and management drawing on an extensive network of global resources.

2. To assist implementation of existing or new laws, policies, and management plans regarding water and wetland resources in an integrated manner.

Despite a number of laws and policies that administrate water resources, on-the-ground implementation remains the biggest obstacle.

The Water and Water Resources Law (1996) is the key legal instrument for water resource management. Various other laws refer to conservation of water resources and aquatic wildlife, navigation, irrigation, hydropower and health, but are implemented sectorally and hierarchically. The Ramsar network assists in designing and implementing integrated management plans that will clarify roles and responsibilities of all stakeholders.

3. To increase the institutional, human resource, and information flow capacity in wetland related administrations.

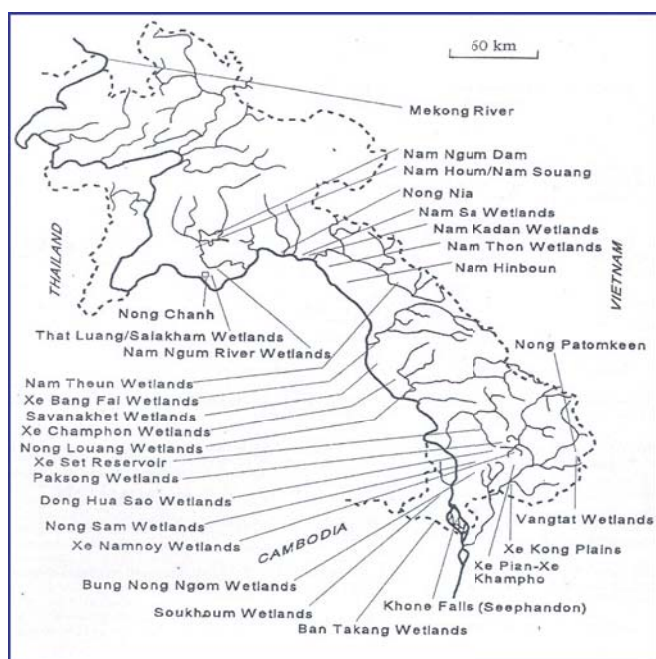


Figure 2: Important wetland sites in Lao PDR

Source: © Inventory of Wetlands in Lao PDR, 1996

A wide range of tools, processes and mechanisms are readily available to assist Parties build capacity and strengthen institutions through the Ramsar network in the form of institutional support, technical information sourced from a network of local and international experts, advice and training on conducting biodiversity surveys and economic valuations, and tools for implementing monitoring and evaluation.

4. For regional planning and management of wetlands in the Lower Mekong basin.

The Ramsar Convention can be used to instigate dialogue amongst stakeholders for problem-solving including regional downstream and upstream issues with neighbouring countries such as China and Vietnam.

What needs to be done now to ratify Ramsar?

The Government of Lao PDR has fulfilled all prerequisite conditions in the pre-accession process. They now need only to complete and sign an instrument of ratification to be sent to UNESCO for approval, prior to the Ramsar Secretariat announcing accession (Ramsar Secretariat, 2008).

The significant work completed over the past 7 years will quickly become redundant and current momentum lost if accession does not occur soon.

In order for conservation principles to be considered when planning further development in wetlands in Lao PDR, the Ramsar Convention needs to be prioritized. Utilization of these tools and information is important in light of contradictory development priorities that identify hydropower as a key poverty alleviation strategy, despite dependence on wetland resources for livelihoods continuing to be a trend in rural areas of Lao PDR.

The valuable work completed so far has created positive awareness at the national level about the need to manage wetlands.

Yet development in Lao PDR is proceeding at a rapid pace and wetlands are under increasing pressure to provide goods and services to a wider range of users, for a greater variety of purposes.

Given this reason as well as the imminent occasion of the COP 10 in October this year, Lao PDR should capitalize on this opportunity and take a decisive step forward by ratifying the Ramsar Convention.

Such an action would signify Lao PDR's commitment to joining the international community in addressing sustainable water and wetlands management, as well as provide numerous opportunities and benefits to improve institutional and human resource capacity in wetland administration.

Key milestones already achieved towards accession are:

- Submission of the Ramsar Information Sheet (RIS) by the Government of Lao PDR to the Ramsar Secretariat in mid-2006 and designation of a Ramsar site in 2006.
- Research into the extraordinary biodiversity values of the site and an inventory of wetlands in Lao PDR (Daconto, 2001; Claridge, 1996; IUCN, 2005)
- A cost and benefit analysis of acceding to the Ramsar Convention (IUCN, 2005).
- A study tour by key decision-makers to Vietnamese Ramsar sites in November 2006.
- Ongoing collaboration through the Lao PDR National Water Dialogue in 2007 and Information Workshop on the Ramsar Convention in June 2003. In August 2004, the Ramsar Technical Working Group was established.
- Participation in the Asian Regional Preparatory Meeting in January 2008 for Ramsar COP10. Representatives also attended the COP 9 in 2005.



Photo: Flying Sarus cranes in Siphandone, Lao PDR © MWBP, 2005

Once Lao PDR has acceded to the Convention, it can expect:

- Increased economic incentive to invest in Lao PDR's natural sites particularly regarding ecotourism initiatives;
- Protection of existing features for local livelihoods particularly sustainable fisheries;
- Protection of existing features for biodiversity values;
- Higher profile of Lao PDR's status in the region and as a potential model of wise water use; and,
- Strengthened framework for regional water governance providing effective mechanisms for collaboration with local and regional stakeholders.

Lao PDR's Ramsar site— why Siphandone?

The Siphandone (Four Thousand Islands) wetland complex in southern Champassak Province has been nominated as Lao PDR's Ramsar site because of the regional and local economic value of its fishing industry, its international reputation as a biodiversity hotspot, and prime ecotourism destination. The Siphandone wetlands site fulfils the greatest number of Ramsar criteria based on biodiversity values and is thus the optimal choice for Lao PDR's inaugural Ramsar site. However, there are concurrent plans to construct a hydropower plant near Khone Phapheng Falls and Don Sahong, which poses a threat to the current Ramsar accession process as it may have negative impacts to livelihoods and capture fisheries, existing wildlife populations, and important tourism sites.

Livelihoods and fisheries:

Around 201 fish species have been identified in the area. In southern Lao PDR, wild capture fisheries comprise around 20% of gross income, with more than 80% of households participating. Anywhere from 15-50kgs of fish and other aquatic food is consumed annually by the local population in southern Lao PDR (WorldFish Center, 2005).

One of the most important species is the Giant Mekong catfish (*Pangasianodon gigas*) or pa beuk, which is an indicator of the ecological integrity of the Mekong River. Its size makes it one of the largest freshwater fish in the world and it may grow up to three metres in length and weigh up to 250 kilograms (MWBP, 2004). Its population in the wild is rapidly declining. A rate of population decline of over 80% can be estimated from combining annual catch data over the last thirteen years in the Mekong River Basin area (IUCN Red List, 2007). In 2004 the IUCN Red List adjusted the status of the Giant Mekong catfish to Critically Endangered.

Other local fish species of economic and food security importance include *Mekongina erythrospila* (pa sa ee) and *Probarbus jullieni* (pa eung tad eng). Around 87% of the species are known to be migratory, including commercially significant fish.



Photo: Tourist bungalows at Don Khone © MWBP, 2005

Biodiversity:

Siphandone is renowned for its natural beauty and home to many endemic Lao animal species including critically endangered species' the Giant ibis (*Thaumatibis/Pseudibis gigantean*) White-shouldered ibis (*Pseudibis davisoni*), and the White-rumped vulture (*Gyps Bengalensis*) which has disappeared from most of South East Asia. In fact, Siphandone harbours some 20,000 water birds regularly (MRC/IUCN, 2006). Rare turtle species also inhabit the area - Cantor's giant soft-shell turtle (*Pelochelys cantorii*), the Big-headed turtle (*Platysternon megacephalum*), and the Asiatic soft-shelled turtle (*Amyda cartilaginea*), all named on the IUCN Red List. Other endangered species in Siphandone include the Siamese crocodile (*Crocodylus Siamensis*), the Giant Mekong catfish and the Irrawaddy dolphin. *Orcaella brevirostris* is one of the few river dolphin species in the world, although the population in Siphandone is small, estimated between 9-20 mammals in total. They can be sighted at their habitat near the Cambodian border (WWF, 2007).

Tourism:

In 2006-2007, there was a 45% increase in the number of visitors to Champassak Province, and an estimated US\$14 million was earned in revenue from tourism alone (Vientiane Times, 2008). Provincial tourist officials cited Siphandone and Khone Phapheng Falls as the most visited sites, as well as popular backpacker island Don Det. Tourism guidebooks consistently nominate Siphandone as a highlight in Lao PDR (Lonely Planet, 2004, 2007). Siphandone also comprises the largest complex of waterfalls in Asia (Daconto, 2001), and opportunities to sight the rare Irrawaddy dolphin are another major drawcard whilst being a stable alternative for local fishermen to supplement their incomes.

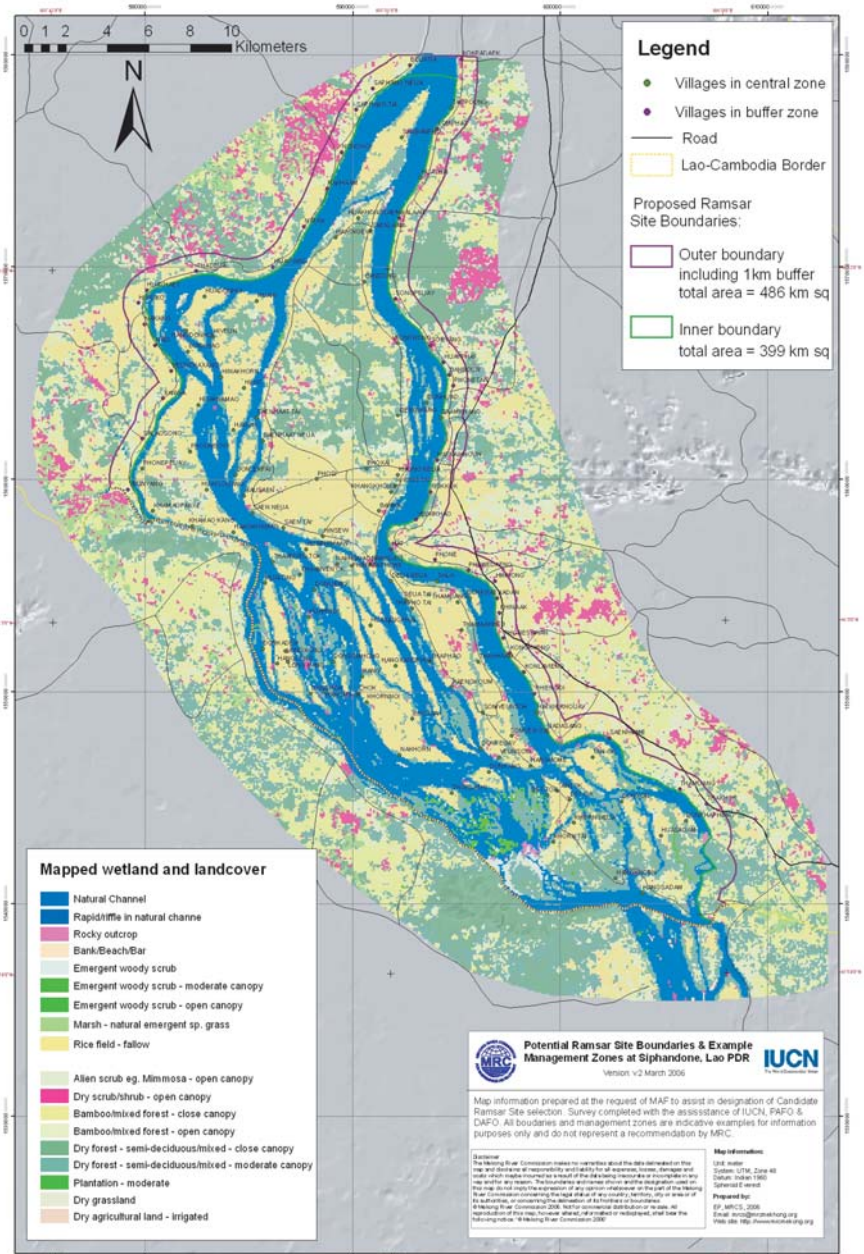


Figure 3: Map of Siphandone and proposed Ramsar site

Source: © MRC/IUCN 2006



Photo: A Siamese crocodile
© MWBP, 2005



Photo: Khone-Phapheng Falls at
Siphandone, Lao PDR © MWBP, 2005

The Don Sahong hydropower project and the Ramsar Convention

Malaysian company Mega First Corporation Berhad (MFCB) signed an agreement with the Government of Lao PDR in March 2006 to conduct an 18-month feasibility study for the Don Sahong hydropower project (DSHEP) that will be located in the proposed Ramsar site (see Figures 6 & 7). MFCB plans to sell electricity to Thailand and Cambodia, with some electricity generated for domestic consumption. Current plans will block the main channel the Hou Sahong, for fish migration which may impact negatively on local livelihoods in southern Lao and northern Cambodia, and on environmental biodiversity.

An environmental impact assessment (EIA) report has recently been conducted on the Don Sahong site dam but the report is yet to be publicly released. IUCN and others submitted comments to the Government of Lao PDR in response to the EIA report and have been informed that a public consultation meeting at central level is scheduled to occur in the near future.

The Ramsar Secretariat states that if the proposed dam will have adverse affects in achieving the criteria as listed in Lao Ramsar Information Sheet (RIS), the construction of the DSHEP could preclude the Siphandone site from being approved for the Ramsar List. Construction of the Don Sahong dam also threatens the potential creation of a Lao-Cambodian transboundary Ramsar site (Siphandone-Stung Treng).

It is important for the Government of Lao PDR to accede the Ramsar Convention prior to any hydropower projects being approved in Siphandone, given the opportunities to use the Convention's principles, tools, and management strategies to guide any future development and minimise impacts on biodiversity, local people's livelihoods, and economic security in this ecologically sensitive area.

“Ramsar does not operate through strict legal prescriptions and requirements; instead promoting cooperative management solutions and providing the ‘tools’ to assist Parties to implement these.”

Ramsar Secretariat 2006

If the Ramsar Convention is ratified now and strategically implemented in Siphandone, it can also be used to as a model of balancing economic, social and environmental priorities and provide a precedent for other developments in wetlands in Lao PDR.

Therefore, if the Ramsar Convention is not immediately approved and Siphandone not selected, consequences may be detrimental. Tourism will decline if the dam is constructed, a primary income generation activity for local villagers. Fish migratory species will be forced to alter their breeding and natural behaviours, impacting on local fishermen and the national and regional fishing industry. Critically endangered species such as the Irrawaddy dolphin may become extinct in the area (WWF, 2007), and for many highly vulnerable species Siphandone is one of their last refuges in the world (IUCN Red List, 2007).

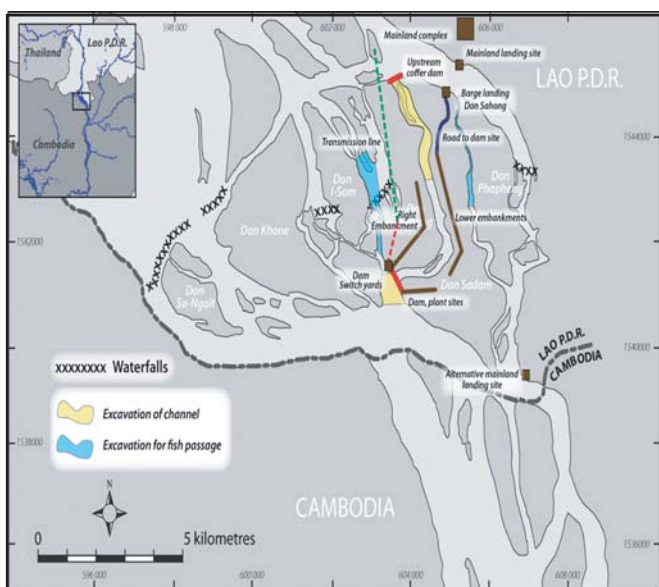


Figure 4: Proposed construction site of the DSHEP in Siphandone, Lao PDR
Source: © MRC, 2007

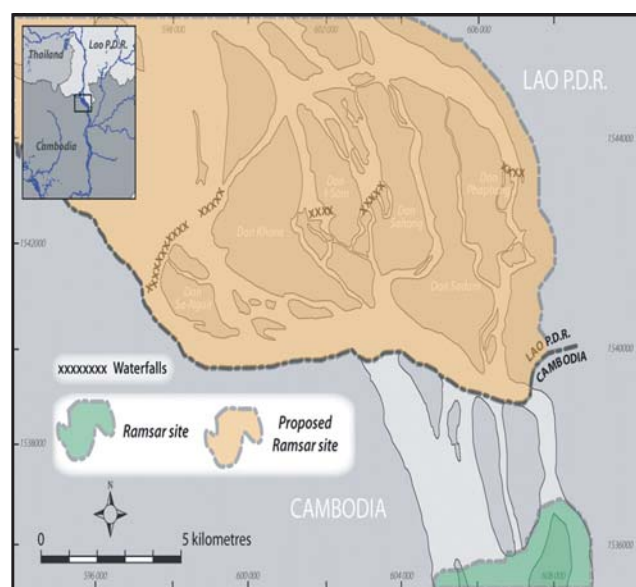


Figure 5: Boundaries of the proposed Ramsar site in Lao PDR and the existing Cambodian Ramsar site, Stung Treng
Source: © MRC, 2007

Recommendations

1. The Government of Lao PDR should ratify the Ramsar Convention immediately. The Ramsar Secretariat can be called upon to provide technical assistance along with other international organisations in the region.

2. The Water Resources and Environment Administration (WREA) should take a leadership role in convening key decision-makers from Ministry of Planning and Investment (MPI), Department of Livestock and Fisheries (DLF), Ministry of Energy and Mines, Treaty and International Law Department and the Lao National Mekong Committee (LNMC) to dialogue on the benefits and trade-offs of Ramsar and development options.

3. The Mekong River Commission (MRC) as the key regional river basin organization, is tasked with an important role of catalysing dialogue on this issue of international significance. Under the Mekong River Basin Agreement (1995) the MRC should initiate and facilitate transboundary dialogue regarding Don Sahong developments in Siphandone.

4. The National Assembly needs to discuss the potential impacts of hydropower development in relation to wetlands, and stimulate discussions within the Government, while providing regular information to the public.

5. Civil society organizations should promote education of the significance of wetlands in Lao PDR and raise the profile of wetlands and their ecosystem functions for livelihoods.

6. Lao PDR is obliged to formally notify neighbouring riparian countries of a proposed project under the 1995 Mekong River Basin Agreement when any such development may have potential impacts on its neighbours as users and custodians of an international waterway. The Lao Government should officially inform Cambodian users downstream of the Don Sahong hydropower project.

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References:

Bangkok Post, (Accessed 17 Nov 07), "Cambodia raps Laos over Mekong dams", http://www.bangkokpost.com/breaking_news/breakingnews.php?id=123623

Baird, I.G. & Beasley, I.L., 2005. *Irrawaddy dolphin Orcaella brevirostris in the Cambodian Mekong River: an initial survey*, Oryx, Cambridge University Press.

Baran, E., et al. eds. 2007. *Influence of built structures on Tonle Sap fisheries*. Cambodia National Mekong Committee and the WorldFish Center. Phnom Penh, Cambodia.

Claridge, G., 1996. *Inventory of Wetlands of Lao PDR*, IUCN, Thailand.

Daconto, G. (ed.), 2001. *Siphandone Wetlands*, Bergamo, CESVI.

Globe Magazine, October 2007, "Dam heading for a fall", pp.30-31

Hirsch, P, Jensen, K.M., 2006. *National Interests and Transboundary Water Governance in the Mekong*, Australian Mekong Resource Centre, Sydney

IUCN Red List of Threatened Species, www.iucnredlist.org/

IUCN, 2005. *Lao PDR: An Integrated Report on the Institutional and Legal Requirements for Acceding and Implementing the Ramsar Convention including associated costs and benefits*, IUCN, Vientiane.

IUCN, 2006. *Mekong Region Water Resources Decision-Making: National Policy and Legal Frameworks vis-à-vis World Commission on Dams Strategic Priorities*, Bangkok, Thailand.

Lopez, A., *The Cambodia-Lao PDR Transboundary Workshop for the Conservation and Management of the Mekong River Irrawaddy Dolphins*, http://www.mekongwetlands.org/Common/download/Lopez_Trans-BoundaryDolphinWshop_R.B.1.08.05.pdf

Lorenzen, K., Choulamny, X. & Sultana, P. 2003. *Understanding livelihoods dependent on inland fisheries in Bangladesh and Southeast Asia, Lao PDR summary report*. WorldFish, Penang, Malaysia

MWBP 2005. *Fact Sheet - The Plight of the Mekong Giant Catfish* http://www.mekongwetlands.org/Common/download/Giant_catfish_fact_sheet_formatted_160805.pdf

MWBP, 2005. *Wetland Values and Functions*, http://www.mekongwetlands.org/Common/download/IUCNLao_Ramsar_Brochure2005.pdf



Photo: Lift net fishing along the Mekong River © MWBP, 2005

MWBP, 2006. *Preliminary Status Review of the Siamese Crocodile (Crocodylus siamensis SCHNEIDER, 1801) (Reptilia: Crocodylia) in Lao PDR* http://www.mekongwetlands.org/Common/download/Laos_siamese_crocodile_report.pdf

Ramsar Convention on International Wetlands, <http://www.ramsar.org/>

Souvannaphanh, B., Chanphenxay, S, Choulamny, X, 2003. "Status of inland fisheries statistics in Lao PDR", in FAO (ed) *New approaches for the improvement of inland capture fishery statistics in the Mekong Basin*. FAO-RAP, Bangkok, Thailand.

Oh, E., Ratner, B.D., Bush, S.D., Kolandai, K., Too, T.Y. (eds.), 2005. *Wetlands Governance in the Mekong Region*, WorldFish Center, Penang, Malaysia.

Starr, P., 2003. *The People's Highway: Past, Present and Future Transport on the Mekong River System*, Mekong Development Series No.3, Mekong River Commission, Phnom Penh. http://www.mrcmekong.org/download/free_download/Mekong_Development_No3.pdf

STEA, 2006. *National Policy on Environmental and Social Sustainability of the Hydropower Sector in Lao PDR*, Vientiane.

TERRA, et al. 2007. "Open Letter to the Lao PDR Government, the Mekong River Commission, and the governments of Thailand, Cambodia and Vietnam." http://www.newsmekong.org/stop_dam_in_khone_falls_area_-_ngos

Warren, T., 2004. *Cumulative Impact Analysis and Nam Theun 2 Contributions*, ADB. http://www.poweringprogress.org/nt2/pdf_files/cia/Annex%204%20Fisheries.pdf

WorldFish Center, 2007. *The Don Sahong Dam and Mekong Fisheries*, WorldFish Center, Penang.

World Food Programme, 2006. *Lao PDR: Comprehensive Food Security and Vulnerability Analysis*, Vientiane.

Worldwide Fund for Nature, 2007. *The Don Sahong dam and the Irrawaddy Dolphin*, WWF, Vientiane.