



Integration for Biodiversity in Cambodia

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1. Introduction

Cambodia reported¹ on intersectoral policy, sectorial policy in environment sector, forest sector, fisheries sector, agriculture sector, water resources sector, energy sector and mining, tourism sector, environmental education, financial sector; other international agreements; regional agreements; impacts of biodiversity mainstreaming on poverty.

2. Intersectoral Policy

Cambodia ratified the Convention on Biological Diversity (CBD) in 1995, but the country's history on implementation of the convention related principles dates back to 1925, long before the establishment of the Convention and of the Ministry of Environment (1993), when the first protected area in Southeast Asia was established. Although the concept and principles of the convention have been increasingly adopted in many government and sectoral policy documents, biodiversity is not always expressly elaborated and frequently embedded under the term natural resources.

The government policy framework governing Cambodia's implementation of CBD provisions by sectoral agencies and also providing the basis for participation and input by development partners, NGOs and communities of the provisions of CBD lie in the following documents:

- The Government Rectangular Strategy (2009-2013)
- The Cambodia Millennium Development Goals (CMDGs 2003)
- The National Strategic Development Plan (NSDP) 2006-2010
- The National Environmental Action Plan (1998-2002)
- The National Biodiversity Strategy and Action Plan - NBSAP (2002).

Starting in the late 1990's, Cambodia has undertaken numerous initiatives to embark on a decentralisation process that involves a three-tiered system of planning and budgeting focused on the commune, district, provincial and the national levels under the Royal Government of Cambodia's (RGC) overall reform programme. The reform was further reinforced through the government's rectangular strategy announced in 2004 and has now entered into the second term of implementation. Governance reforms lay the foundations in which local Commune/Sangkat Councils, along with the District and Provincial Councils, will have the power to govern, coordinate and provide oversight in resource management, with the technical support of line departments at these various levels. As a result of this effort the demand for natural resources, biodiversity protection and sustainable use in particular, has been adopted and become increasingly seen in the commune development planning processes.

¹ Cambodia (2009). Fourth National Report to the Convention on Biological Diversity, Ministry Of Environment, October 2010, 172 pp.

. In order to support the reform process, a national committee to support decentralization was formed with mandates, among other things, to promote mainstreaming of natural resource and environmental management with an overall development objective to achieve sustainable management of natural resources and the environment, assure secure and equitable access to land and natural resources and create opportunity for natural resources related economic activities, thus contributing to poverty reduction.

An organic law (2008) on sub-national administration provides further basis for the establishment of sub-national councils with the responsibility to oversee local development and natural resources management. The law requires the review of the functions at the national level and their delegation to the lowest most effective levels, including those related to natural resource management. Since its passage in mid 2008, a national committee for sub-national democratic development with a mandate to review the national sectoral functions for their reallocation to sub-national councils was decreed on December 31, 2008. The election of the district and provincial councils was scheduled to be held in May 2009.

Cambodia Millennium Development Goals (CMDGs) represent the national version of the MDGs adopted by member countries to the UN and provide a diagnosis of Cambodia's major policies and programs contributing to each CMDG. The CMDGs are the cornerstones of country's development policies and strategies. The relevant CMDG goals are listed in appendix IV.

The NSDP was developed based on a results-oriented emphasis, with extensive consultations among all stakeholders (government ministries and agencies, external development partners, civil society organisations) through a series of workshops bringing together all the parties to agree upon overall priority goals and jointly examine the goals and constraints to be overcome in order to achieve them. A public investment programme for 2006-2008 was developed to support the implementation of the NSDP. The Public Investment Program (PIP) was approved by the meeting of the council of ministers on January 27, 2006 and the NSDP 2006-2008 was published by Royal Government of Cambodia on August 15, 2006. Benchmark and target values for the most relevant CMDG7 indicators at key time horizons are presented in appendix IV.

The Government of Cambodia also commits to improving development effectiveness through a process of harmonisation and alignment. The RGC's Action Plan for Harmonisation and Alignment (H&A) 2006-2010 has been prepared to implement the agreement between RGC and Development Partners on Enhancing Aid Effectiveness signed in December 2004. A key part of that Action Plan is the greater uptake of more programmatic approaches to development support.

This process has been agreed through discussions between the government and the donor community which supports development in Cambodia. The process is an effort to promote the implementation of output from discussions that ultimately led to an endorsement in early 2005 of the so called the Paris Declaration on Aid Effectiveness. It aims at improving aid effectiveness in order to increase the development impact on reducing poverty and inequality, increasing growth, building capacity and

accelerating achievement of the Millennium Development Goals. A mechanism for government and donor coordination was developed to assist government progress in relevant sectoral development, resulting in a total of 19 Government-Donor Technical Working Groups (TWGs) being set up in 2004-05 for key sectors and thematic areas in order to provide a link between high-level policy dialogue and field implementation or project work. The main responsibilities of the TWGs are to coordinate the implementation of the relevant sectoral plans, develop and report annually on the progress of implementation of TWG action plans and H&A action plans against agreed joint monitoring indicators (JMIs) to the Cambodia Development Cooperation Forum. Each key reform agency thus has to join hand in their respective TWG's secretariat to develop a TWG action plan and H&A action plan including setting JMIs in addition to the sectoral plans developed consistent with the NSDP. The TWGs hold regular meetings, usually one every two months, to exchange information and discuss the different issues in their related fields, including the assessment of the JMIs for which it is responsible.

Examples of TWG activities are provided here. A Four Year Action Plan for Forestry and Environment 2007-2010 has been developed by the Technical Working Group on Forestry and Environment (TWG-F&E) and has recently been approved. Informed by the NSDP 2006-2010 and the overall forest policy statement, the prime objective of the plan is the development of a National Forest Programme (NFP) including coordination and planning. The plan includes a major development element of capacity building activities down to the level of communes and rural people. It involves comprehensive planning and process oriented actions, which will be new challenges to the Forestry Administration (FA) and TWG-F&E.

The Technical Working Group on Fisheries (TWGF) is taking its own similar initiative. It is now in the process to develop a three year action plan for 2009-2011 and a strategic plan for 2009- 2015. In order to enhance greater uptake of more programmatic approaches to development support, an integrated policy planning and review process for fisheries sector is being developed.

This is to provide an opportunity for bringing the various development efforts together into a coordinated programme of interventions that breaks away from the current project-driven approach. It also provides a basis to stimulate discussion through the TWGF and to help assess the potential of such an approach in the fisheries sector.

TWG-F&E and TWGF as a coordinating and supporting national body links not only the domestic and the donor support to the relevant forest and environmental and fisheries sector respectively, but considers also other important adjacent sectors like management of land, local government and the private sector. TWG-F&E is not replacing genuine line department or ministry tasks, but rather facilitates inter-ministerial and donor dialogues on the above issues.

Other Technical Working Groups including Technical Working on Agriculture and Water, Technical Working Group on Land, and so on to a total of 19, have similarly developed their own action plans with members from relevant government ministries.

3. Sectorial Policy

Environment Sector

The main instrument mandating the MoE to implement the provisions of CBD includes:

- The law on Environmental Protection and Natural Resource Management, 2006;
- The Protected Area Law, 2007;
- The Royal Decree on Creation and Designation of the National Protected Area System, 1993; and
- A sub-decree on Environmental Impact Assessment; 1999;
- The National Environmental Action Plan, 1998-2002;
- The Environmental Strategic Plan, 2004-2008;

The National Environmental Action Plan for 1998-2002 (now being revised) and the National Biodiversity Strategy and Action Plan (NBSAP) of 2002 emphasise the need to prepare and implement management plans for biodiversity conservation and to integrate them into the government's broader policy framework for environmental management. The Environmental Impact Assessment (EIA) system, as set out in the 11 August 1999 Sub-Decree on the Environmental Impact Assessment Process, makes it clear that Ministry of Environment (MoE) is responsible for examining and evaluating EIA reports as well as "monitoring, observing and taking action to ensure that the project owner follows the environmental management plan during the construction, operation and termination" of the project. While the MoE is the primary government authority leading the review and evaluation of the EIA reports submitted by project owners, other government institutions, ministries and local agencies with authority participated in such a review only for the projects that are relevant to their respective sector and within the scope of their jurisdiction.

The EIA Sub-Decree requires project owners to submit an initial EIA and feasibility study for all proposed and ongoing projects that are listed in the annex to the sub-decree and to request the MoE to review them. A full EIA and feasibility report are required for projects with potential to have a heavy environmental impact on natural resources, the ecosystem, health and public welfare. While the EIA Sub-Decree itself does not contain standards to guide the MoE in reviewing feasibility studies and EIAs for decision, a prakas is under preparation that provides full scope of definition on EIA to include social, economic and health aspects and also to cover risk assessment. The MoE does not have the authority to reject project proposals and is limited to providing recommendations to project owners and monitoring the implementation of such recommendations. Please refer to chapter 2 for actions related to NBSAP and relevant progress and actions undertaken under the sector.

Forest Sector

Forests have been a major sector of the country's economy and also involve contested issues.

Since 1993-1998, the RGC started activities to consider on development of a national forest policy. In late 1995, the MAFF and the Ministry of Economy and Finance (MEF) conducted a joint study on Forest Policy Assessment in the country with the support from World Bank, FAO and UNDP, the report being submitted for consideration by the government in 1996. Since then the RGC expressed strong interest on forest management policy reform. As a result, a National Committee to Manage and Execute Forest Management Policy (NACOMFOP) was created under the chairmanship of the Prime Minister. The committee was mandated to identify a concept to monitor and assess forest policy, coordinate for forest policy development and investment through government-donor consultative group meetings, and to launch plans of action for the implementation of the forest policy by relevant agencies.

The process of developing a National Forest Programme (NFP) has resulted in a national forest policy statement formulated in 2002. The policy statement defines forest resources of the country as permanent forest estate to be managed by promoting conservation and sustainable forest management initiatives that directly contribute to the rehabilitation and conservation. It stipulates that "The Royal Government of Cambodia commits itself to the conservation and management of the country's unique forest resources in a sustainable manner now and for future generations".

The results and the follow up processes of the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 were taken into account to consider the concept of sustainable forest management within the framework of the sustainable development of Cambodia. The RGC acknowledges the multiple perceptions, interests and objectives of the numerous forest interest groups of the country's society, in the region of the Mekong Basin and at the global level regarding the conservation and sustainable management of forest resources. A long term NFP has to be consistent with the framework of the Inter-governmental Panel on Forests/Intergovernmental Forum on Forests (IPF/IFF) promoted by the International Arrangement on Forests with the United Nations Forum on Forests and the Collaborative Partnership on Forests.

With support from Asian Development Bank (ADB), a Sustainable Forest Management Project was implemented between 1999 and 2000 in which forest concession contracts and agreements were reviewed and developed into a new model of forest concession agreements. These are supported with community forestry policy and guidelines for implementation, including drafting of the new forestry law and the operational support of the secretariat of the NACOMFOP.

Article 8 of the forest law (2002) strengthens the move articulating an imperative for establishment of a National Committee to Prepare National Forest Sector Policy, chaired by the Minister of Ministry of Agriculture, Forestry and Fisheries, with membership from other relevant ministries.

The 2002 National Forest Policy Statement outlines the country's key forest management objectives. The statement is centred on sustainable forest management, with particular reference to the conservation of biodiversity, soil and water resources. It also dedicates appropriate forest lands to a permanent forest estate. A large part of the statement, however, relates to social and development objectives for forest management. The statement anticipates sustaining and increasing the supply of

forest products for social and economic development, and enhancing the welfare of the population, while also assuring the traditional rights and privileges of local communities. Communities are expected to undertake greater participatory roles in forest management, protection and development. The policy emphasizes support to community forestry programmes.

The current forestry reform provides for regimes of protection as a development strategy. The forest policy and law require concession management plans to become vehicles for biodiversity conservation and the establishment of special protection zones. The values of forests for development, such as water regulation and quality, soil erosion control and NTFPs, in addition to their timber are to be given greater emphasis in forest management strategies. Forestry legislation and policy reform, including the Forestry Law, the Community Forestry Sub-Decree, and the Statement of the Royal Government on Forestry Policy, are part of a comprehensive reform package. A forestry policy is currently being developed by MAFF in consultation with related sectors including MOE. Relevant targets for the sector are presented in appendix IV.

Contribution of the Forest sector

In 1997, the RGC issued a ban on export of round logs and rough sawn timber which is still valid. Four studies were conducted to explore options for forest policy reform, forest concession management, logging control and log verification and legal counsel assignment. The FA's initiatives established 10 protected areas covering 1,530,981 hectares. This provided a significant contribution to conservation of internationally important biodiversity and the maintenance of development values other than timber. The establishment of the Sarus Crane 40 Reserve and Cardamom Mountains Forest Protected Area are significant contributions to the conservation of internationally important biodiversity and the maintenance of development values other than timber. The central and southern Cardamom Mountains Forest Protected Areas have been designated to provide a link with the Samkos and Aural wildlife sanctuaries in their north and southern extremes.

An intimate working partnership between the MoE and MAFF has been initiated for inclusive management of the national protected areas system. For example, the Forest Crime Monitoring and Reporting Project bring MAFF and MoE together to work on an issue of great mutual concern, including the control of illegal exploitation of forest and wildlife resources. The link between the two agencies is established at both the central and local levels and thus promotes cooperation and collaboration between two important natural resource management agencies in dealing with forest crime. The linkage also bridges the gap between the central and provincial/district levels. This positive contribution of the project needs to be strengthened, however, and expanded in other aspects of planning and management of forests and protected areas. For example, difficulties remain in sorting out management consistency and arrangements for Tonle Sap fishery conservation overlying parts of the multiple use area. Another linkage is through representation of the officials from the MoE in the Joint TWG-F&E and TWGF.

The MAFF has established two “gene pool conservation areas” in existing protected forest areas.

All protected areas act as gene banks. The designated two gene pool conservation areas covering forest systems is an important step by the MAFF in acknowledging the importance of maintaining endemic plant and animal stocks in situ as a sound investment. To promote species conservation, a list of Cambodia national animals and trees species has been developed and adopted by the MAFF including two species of large mammals, one bird, one turtle, one fish, one palm tree and two plant species.

Community Forestry (CF) has been promoted for over a decade and guidelines were finalised in early 2006. There are now 264 CF sites covering an area of about 179,020 hectares approved by the MAFF. A logging moratorium has been imposed on all existing logging concessions; 2,158 cases of forest crimes have been entered into the case tracking system; 606 offenders have been arrested and sent to courts; 1,636 illegal saws, 2,776 m³ of round and squared logs and 14,925 m³ of sawn-wood, as well as the remains of 6,971 wild animals totalling 3,044 kg were confiscated; 215,521 hectares of forest land have been reclaimed from land grabbing and encroachment; several annual bidding coupes have been prepared to meet domestic timber demands.

Tree planting and forestation activities have all been significantly increased; a sub-decree has been issued on the procedures for using state forest land for tree planting to facilitate and encourage local individuals, communities and the private sector to participate in such activities; the capacity development of local communities has been implemented in parallel with legalisation of existing forestry communities and establishing new forestry communities. Fifteen Tree planting stations produced 2 million seedlings in 2007 for distribution and planting by themselves and by military personnel and the community. As a result, 1000 ha of acacia and eucalyptus have been planted by the stations, 1,579 ha by military personnel and an unknown amount are planted on National Arbour Day by local communities.

Until early 2008, 1,231,522 ha of economic concessions were awarded to 98 companies. Of these, 37 companies, covering an area of 332,240 ha, have had their land concessions since cancelled for lack of proper management plans and activities. Thirty seven of the remaining 61 companies have had their development plans approved and of these, 22 are currently invested in plantations of rubber, teak, polonia, acacia, eucalyptus, cashew, cassava, and sugar cane covering an area of over 29,696 ha and including 449,516 teak trees planted along designated roads.

Twenty one others are currently in preparatory stages to implement their plans. Of the target 8,338 ha of commercial plantations, 7,173 were planted in 2007, covering mostly fast growing exotic species such as acacia and teak, with 11 economic land concessionaires (MAFF Annual Report 2007-2008).

Fisheries Sector

A new fisheries law was adopted in 2006. In relation to the old fisheries law, this new law defines the fisheries domain based on an ecosystem approach and an emphasis is included on conservation of fish habitats and resources therein. This contrasts with the previous fisheries law in which the focus was on revenue generation. The fishery policy defines the goal of the fisheries sector to maximize the contribution of the sector to the achievement of national development objectives, especially those

related to improving rural livelihoods of the poor, enhancing food security and the sustainable development and equitable use of the fisheries resource base.

Six priorities addressed in the sector strategy and action plan for 2005-08 emphasise the improvement of the policy, plans, legislation, institution and capacity of the sector, increasing access for family fishing, enhancement of fish stock through conservation and research study, promotion of community based fisheries management as a means for livelihood diversification, a participatory approach to fisheries management, improving livelihood of poor rural people by enhancing the role of fish in food security and employment and income generation while adhering to Cambodia's international obligations in relation to aquatic resource-use such as CBD, World Trade Organisation (WTO), CITES, ASEAN and with due reference to FAO's Code of Conduct for Responsible Fisheries.

Contribution of Fisheries Sector

Regimes of protection have been introduced as a development strategy in the fisheries sector. The Fisheries Policy and new Fisheries Law reinforce the importance of fish habitat sanctuaries and seasonal fishing controls in maintaining fish stocks and their diversity. Relevant targets for the sectors are presented in appendix IV.

An initial system of 8 fish sanctuaries has been established at national level. The fish sanctuaries play a significant role in sustaining the viable population for fish reproduction. Three thousand hundred thirty-two hectares of seagrass beds have been protected, resulting in an increased fish catch in the surrounding areas and a 75% reduction in illegal fishing practices. Five fishery refuges have been established and protected.

Community Fisheries have been established to facilitate management and use of common fisheries resources. National policies recognise the rights of fishing communities to manage local fisheries and the importance of their involvement in protection of the resource. Furthermore, they emphasise the importance of increasing habitat protection to ensure the sustainable use of the resource. The Fisheries Law includes a provision for community co-management of fish sanctuaries. In total, 469 Community Fisheries (CFi), 434 inland and 35 in coastal areas, have been established, including 129,490 households. Forty nine percent of these are designated fish refuges.

A sub-decree on the national listing of 58 threatened aquatic species was submitted for consideration by the MAFF and was approved by the government. FiA works actively to conserve the dwindling population of Irrawaddy Dolphins in collaboration with NGOs and local communities. The result of the last few years of effort has seen a decline in the death rate of the dolphin calves. Four seahorse spawning grounds have been identified and actions are now in the process to put them under protection.

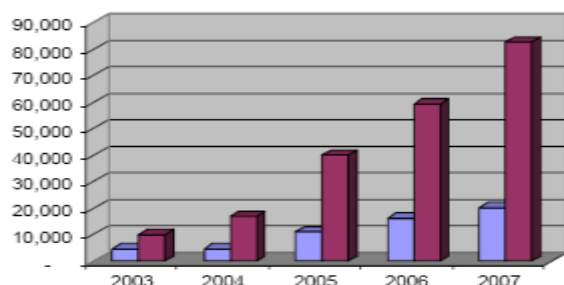
Similarly, aquaculture production of fish and shrimp is also promoted by FiA. Targets of 40,000 tonnes were met for 2008, including 156,500 crocodiles, exceeding the goal of 80,000, and 37.2 million fish spawn out of a target of 50 million. FiA celebrates national fish day in selected provinces on an annual basis when fish seed of indigenous species are released to the wild to replenish existing stock. In 2008,

44,000 flooded forest seedlings and 382,750 mangrove seedling were planted in the Tonle Sap Lake and in coastal areas, respectively.

Agriculture Sector

The agricultural sector strategic development plan for 2006-2010 was developed along with the Agriculture and Water Strategy (2006-2010) that was adopted in 2007. The plan defines development goals to include pro-poor agricultural systems and community arrangements, effective agro-business, efficient, sustainable and pro-poor management of land and water resources, including water quality, coordinated capacity for agricultural based research, information sharing and technology transfer and promoting good governance in agriculture.

Integrated Water Resource Management is the main principle to support multi-sectoral use, including the use for conservation of biodiversity and ecosystems.



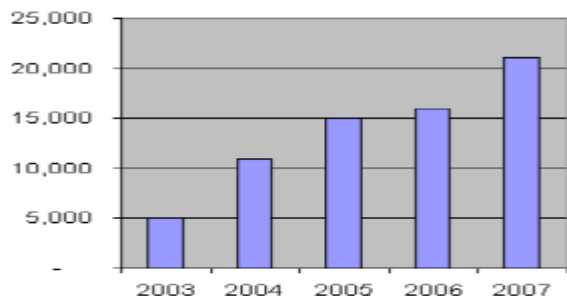
Area with SRI (ha)/ Number of farmers practicing SRI

Figure 1: Trend in land for System of Rice Intensification and participating farmers

The government's agricultural strategy promotes diversified farming systems, agro-forestry and protection, and management of critical watersheds. Those strategies, and their direct link to the maintenance of protected areas and biodiversity are key to maintaining stability in agricultural systems and therefore to food security. The significant protected area contribution to the supply and regulation of water for agriculture is recognised. Populations are expanding and bringing agricultural activities to the edge of protected areas, including subsistence plots, market gardens and commercial operations. Farmers and commercial operators acknowledge this contribution, although it is treated as a free gift.

System of Rice Intensification has been promoted through field trials and farm introduction in an on-going effort. Five hundred households adopted the approach for 70 field trials conducted in 2007 in 5 provinces. The trend in areas and farmers engaged in SRI is presented in SRI is presented in Figure 1 above.

Cambodia also sees increasing awareness among farmers on use of improved variety of seeds, organic fertilisers, plant-based pesticides and compliance with instructions when chemical pesticides are applied. The trend for such practices between 2003 and 2007 is illustrated in Figure 2.



Number of farmers (HH)

Figure 2: Trend of farmers implementing environmentally friendly farming practices

Water Resources Sector

The creation of a Ministry of Water Resources and Meteorology (MOWRAM) centralises jurisdiction over water resources policy and management. The ministry is responsible for management of fresh and marine water resources, including defining water resources policy and development strategies to support sustainable use, development, and national and international conservation and protection. The comprehensive Law on Water Resources Management defines the rights and obligations of water users, proclaims the fundamental principles of water resource management, and identifies the institutions with authority to implement and enforce the law and to regulate the participation of users in the sustainable development of water resources.

The principle of Integrated Water Resource Management requires coordinated multi-sectoral water use planning including the need for conservation of biodiversity and ecosystems. However, there is still a long way to go with regards to the implementation of the concept. Regardless of the Mekong River Sustainable Development Agreement (1995), hydrodams are becoming hot issues for countries in the region, including Cambodia where the EIA capacity remains weak. The other achievements include the development and implementation of Farmer Water User Groups.

Energy Sector and Mining

Cambodia is currently involved in the move to tap its mineral resources, including offshore oil, inland mineral deposit and hydropower potential. Article 21, paragraph 2 of the Law on Management of Mineral Exploitation (2001) recognizes the need for environmental protection as stated in the Law on Environmental Protection and Natural Resource Management (1996) and the sub-decree on Environmental Impact Assessment (EIA) Process (1999) including the need for environmental management plans for each mineral exploitation. However, mineral exploration and exploitation have now become a priority and the relevant activities are reportedly occurring almost everywhere both legally and illegally, including within the national protected areas system.

The 1999 sub-decree on Environmental Impact Assessments requires an EIA to be completed for hydropower plants exceeding 1 MW and for all “petroleum mining research.” The EIA Subdecree thus

provides a level of environmental review for energy development projects. The subdecree is supported by EIA guidelines for hydropower and other energy development prepared by MIME.

A protected area review

There is no mechanism for the energy sector and beneficiaries to pay for the ecosystem services.

The economic benefits of the two hydropower schemes will be substantial. Currently, the critical role played by biodiversity and ecosystems in maintaining the productivity and lifespan of hydropower projects has been taken as a free service.

in 2003 found that the first two EIA system hydropower projects in Cambodia were not working effectively, with minimum involvement by the GDANCP and protected areas staff at central government and on site. Consequently, the full effects of the projects for other development sectors, such as tourism, and for other values of the host protected areas have not been adequately studied. In principle, MIME follows the Asian Development Bank's EIA guidelines and procedures and seeks to develop contracts for work on energy projects on the basis of an EIA report and the mitigation measures it recommends.

Mining in protected areas had previously been prohibited by a 1994 Prakas on protected areas, but it was repealed in August 2006 to open a way for government revenue generation. Under the Protected Area Law (2008), each protected area should first go through a process of zoning its territory after which it can potentially allow mining activity to take place, but only in those areas classified as 'sustainable use zones'. As a result, between August 2006 and January 2008, mining operations had started in five of Cambodia's protected areas, particularly in Mondulkiri Province, a heavily forested area of northeast Cambodia where a large number of mining concessions have already been allocated.

Tourism Sector

The National Tourism Policy includes the development of infrastructure and conservation of touristic values in protected areas for which the MOE and MOT have embarked on a cooperative initiative to develop a master plan for selected protected areas to promote eco-tourism. The recognition of the potential for nature based tourism is implicitly enshrined in a number of relevant instruments including the government Rectangular Strategy, NSDP, NEAP, and the organic law on Sub-national Administration.

Government, including local government and communities, increasingly recognises the broader development values of natural ecosystems, especially relating to tourism. Already in some parks, tourism is bringing in significant revenue for local communities. A number of initial investments have been made in infrastructure in some parks, with NGOs assisting in establishing community based ecotourism at many sites. In 2006-07, three eco-tourism destinations were established and two more destinations were being developed. Although the assessment of tourism potential in some PAs and other sites may have been made, the Ministry of Tourism is preparing guidelines and a national eco-tourism strategic plan for eco-tourism development in Cambodia.

Environmental Education

Awareness and education regarding biodiversity is mainly taken in the form of environmental education and awareness. Although this is not explicitly in the education curricula, the education policy opens for mainstreaming of relevant social and environmental issues and biodiversity as welcomed by the Ministry of Education, Youth and Sports for integration on a case by case basis and to specific locations. As a result, teacher guidebooks and students manuals have been developed under various initiatives and have been in used in schools haphazardly throughout the country.

Awareness campaigns are also undertaken on a semi-regular basis under an initiative by the MoE's Department of Environmental Education and Communications. TV spots and radio shows, including music and songs dedicated to biodiversity protection are strongly promoted.

Awareness is also undertaken through national days such as the National/International Environment Day, National Arbour day, National Fish day, and World Wetlands Day. While such education and awareness campaigns focus mainly on students and the public at large, newsletters are also produced targeting decision and policy makers as well as practitioners.

Financial Sector

As part of an effort to increase resources for implementation of CBD, a national capacity selfassessment (NCSA) accompanying an action plan for national capacity development regarding implementation of the 3 UN Conventions was developed and adopted by the government in 2007. The RGC recognized that there is a lack of capacity for concerned ministries, especially the Ministry of Environment and Ministry of Agriculture, Forestry and Fisheries to work on biodiversity, climate change and land degradation. It also agreed that capacity is a cross-cutting issue that requires help from relevant ministries, NGOs, universities and the private sector to invest for sustainable development in Cambodia. The prime minister made a call to those who care about preserving biodiversity and land quality, preventing climate change, and poverty reduction to support the NCSA Action Plan and push for a long term plan.

As noted in Cambodia NR3, it is impossible to calculate the total financial resources allocated by the Cambodian Government (at all levels) to address matters related to the implementation of the Convention of Biological Diversity as the issues related to the Convention lie with many different government ministries and its line agencies and also it is not possible to segregate the amount spent on matter related to biodiversity from the overall budget of any agency.

Nevertheless, the percentage of budget allocation for the central Ministry of Environment and Ministry of Agriculture, Forestry and Fisheries increased from approximately 0.27% and 1.06% of the total national budget in 2003 allocated for expenditures at the central level for the two ministries respectively. The budget allocation for line departments of each of the two ministries above at the provincial level also increased from 2003 at 25.3% and 41.15 % of the global budget allocated for each of the two ministries respectively.

The Environmental Endowment Fund was established under the Law on Environmental Protection and Natural Resource Management (1996), but is too small and without a focus on biodiversity. Although biodiversity is under commercial exploitation for national revenue, the current financial system requires all revenue be put in the national treasury before it is allocated through annual the budget process. At the field level, however, there are cases where revenues have been generated through eco-tourism initiatives and collection of access fees in which the revenue may be used directly at the place where they are generated.

4. Other International Agreements

Cambodia signed on to the Cartagena Protocol on Biosafety in 2003. Progress in relation to the protocol includes adoption of a national law on biosafety (2007), the extension of the mandate of the National Biodiversity Committee to also cover biosafety issues. Cambodia developed its Guidelines for Risk Assessment and Risk Management of Living Modified Organisms in 2007 and a draft National Action Plan on Biosafety and Biotechnology was developed in 2008. A biosafety clearing house has been established with the Ministry of Environment for the purpose of sharing information with the CBD secretariat and other Parties to the Protocol (www.cambodiabiosafety.org).

Ramsar Convention:

Cambodia ratified the Ramsar Convention on Wetlands in 1999 along with its listing of three sites of international importance covering three main habitat types: river system, floodplain system and coastal mangroves with the MoE serving as the National Administrative Authority. A draft country wetland action plan was developed in 1999 through a participatory process in which relevant agencies and NGOs have full involvement, and an attempt has been made to establish a national wetland committee, but has yet to be formalised. The Ramsar's New Guidelines for management planning for Ramsar sites and other wetlands has been adapted.

Nevertheless, through joint efforts with relevant national and provincial sectoral agencies, local authorities and NGOs, progress made to date includes a draft management plan developed for the three sites. In addition, a comprehensive assessment of the biodiversity conservation significance of the Mekong Ramsar site in Stung Treng Province was made to identify resources in place and a basis for a potential zoning scheme for development of an improved management plan for the site. The assessment also benefited from an application of a test for the development of a tool on the Integrated Assessment of Biodiversity which provides a useful means for an integrated approach to considering the ideas of communities which are frequently or heavily dependent on wetlands resources in negotiation for planning of the area.

As part of the joint effort with BirdLife International, 1 EBA (Endemic Bird Area) and 40 IBAs (Important Bird Areas) covering 8 different landscapes over an approximate total area of 4.4 million ha, equivalent to 24% of the total land area, have been identified¹² UNESCO Network of Biosphere Reserves:

. Of the 40 IBAs, 27 support critically endangered species and 29 support endangered species. The work was done under a collaborative effort between FA, GDANCP, BirdLife and WCS.

Pursuance to Cambodia's nomination of the Tonle Sap Lake as biosphere reserve in the UNESCO's global network of Biosphere Reserves in 1997, three biodiversity hot spots in the lake area were designated core areas and framework for management and administration has been set in place. As the area is under overlapping jurisdiction between the MoE and MAFF, a Royal Decree was issued in 2001 to clarify responsibilities concerning the Tonle Sap Biosphere Reserve, with the MoE being given the mandate for managing three core areas, while FiA/MAFF is responsible for managing the buffer zone in collaboration with other agencies. This collaborative framework has yet to work effectively in practice.

The progress in this area also includes a draft policy for the Tonle Sap Biosphere Reserve developed (2007) using a multidisciplinary team from relevant government agencies (FiA and MoE at both national and local levels) and academy (the Royal University of Phnom Penh) to address the multi-disciplinary and multi-sectoral approach to management of the resources and their uses with three goals (i.e., to contribute to biodiversity conservation and habitat restoration, to foster sustainable socioeconomic development and equitable access to assets, and to build supporting system for biodiversity conservation and sustainable development). The immediate successes seen include the cessation of waterfowl hunting and population increases in selected species on IUCN red list, reduction of illegal fishing, and legal instruments that allow for a review of the fishing lot system every five years in for the purpose of biodiversity conservation.

United Nations Framework Convention on Climate Change (UNFCCC)

Cambodia ratified the UN Convention on Climate Change in 1995 and the signed on Kyoto protocol in 2002. In 2005, the country analysed its policies to identify gaps in addressing climate change impacts in the country and developed the National Adaptation Programme of Action to Climate Change (2006). An inventory of GHGs found that land use changes contribute significantly to the share of national emissions as industrial processes and agricultural sectors start to take its toll. In addressing climate change issues, a National Climate Change Committee was established (2006) chaired by the Minister of Environment and including participation of the secretary of state and equivalent from relevant ministries.

In implementing the Kyoto Protocol, the MoE was nominated the Designated National Authority to facilitate private and community involvement in the implementation of a Clean Development Mechanism (CDM) through establishment of a CDM project review, endorsements and publication of a manual on CDM related requirements and potential in the country. The results include 5 projects (1 biomass, 2 biogas, 1 heat recovery and 1 hydropower project) submitted, of which 3 projects are registered with executive board and 2 are under validation. All 5 projects together would have the potential for avoidance and capture of 431,956 tonnes of CO₂-equivalent annually for 7 years. See www.camclimate.org.kh for more detailed information. Cambodia is among the first country's to initiate Reduced Emissions from Deforestation and Degradation through sustainable community-based

management of forests. A REDD pilot project has been established with the aim to assist local communities in 12 CF sites in the NW of the country.

United Nations Convention to Combat Desertification (UNCCD)

Cambodia is also a signatory to the United Nations Convention on Combating Desertification for which Cambodia ratified in 1997 with the MAFF serving the focal point. The Draft National Action Plan is being developed to combat land degradation, develop capacities on how to sustainably manage land, and integrate the landscape approach for sustainable land management into national and sub-national policies and planning.

Convention on International Trade of Wild Floral and Faunal Species (CITES)

Cambodia ratified CITES in 1997 with the country CITES Management Authority established within the Ministry of Agriculture, Forestry and Fisheries (MAFF). The Cambodia CITES Scientific Authority is comprised of three agencies including FA for terrestrial species, FIA for aquatic species, and GDANCP for species originating from Protected Areas. In implementing CITES, Cambodia has developed and implements national registration and monitoring. The registration process involves submission of a summary document including among others items a description of the type and purpose of facility and number of animals, a letter of endorsement from the Council for Development in Cambodia (CDC) (attached to the letter to the Minister) and a letter of support from the Forestry Administration (FA). Regarding crocodiles, the Fisheries Law of 2006, which provides the main legal basis for crocodile management in Cambodia, and a Prakas issued by the Minister of the MAFF on 21 February 2005, concluded that crocodiles, turtles and frogs are under the jurisdiction of the Department of Fisheries.

Convention on Conservation of Migratory Species

Cambodia has not ratified the Convention on Conservation of Migratory Species. However, the country, through the MAFF, signed an MoU on conservation and management of marine turtles and their habitats of the Indian Ocean and Southeast Asia in 2003 which is an instrument under the Convention on Migratory Species. Effort under the initiative include joining the East Asian Network for Migratory Birds, producing field guide for identification of marine aquatic animals including marine turtles, and a proposal for the listing of selected marine turtles as part of the national list of aquatic endangered species (now before MAFF).

Cambodia is also a party to other international conventions including the International Plant Protection Convention (1952). Cambodia is also a signatory to the World Heritage Convention (1991). Progress gained includes the designation of the Angkor complex as a World Heritage Site in 1992, Preah Vihear Temple in 2008, and a series of other sites being prepared for nomination including the Banteay Chhmar complex, Banteay Prei Nokor complex, Beng Mealea complex, Preah Khan complex at Kampong Svay; Sambor Prey Kuk cluster, Koh Ker, Angkor Borei and Phnom Da, Uddong, and Koulen. The central Cardamom complex was also once promoted by the MoE for listing but this has materialised due to the need for further study. (For other multilateral and bilateral agreements, see National Report 3).

5. Regional Agreements

Cambodia is a member of the Association of South East Asian Nations (ASEAN) and thus is bound by its agreements, particularly on the Conservation of Nature and Natural Resources. ASEAN's forestry program includes, inter alia, the development of guidelines for criteria and indicators, trade harmonization and promotion through the ASEAN Forest Product Industry Club (AFPIC), and work on forest fires and haze.

Cambodia has representation in the ASEAN Senior Officials on Forestry (ASOF) and has been involved in many regional programmes including, among others, international issues affecting forestry and forest products, International Forest Policy Process (IFPP), Peer Consultation Framework (PCF), Social forestry policy, Asia Forest Partnership (AFP), Forestry research and development, Forest law enforcement and governance (FLEG), Monitoring assessment and reporting mechanism (MAR), Clean development mechanism (CDM) in forestry, Asia forest alliance improving the sustainable management of forest resources and biodiversity in Asia, and the Regional Custom Cooperation Framework.

The Forestry Administration of Cambodia has been actively involved in ASEAN forums on forestry including the ASOF meeting, ASEAN Expert Group (AEG) meeting, workshops, etc. Cambodia, in 2005, was endorsed as a lead country in coordinating activities of the ASEAN member countries to implement the international forest policy and forest regime, and to develop guidelines as a common reference framework for implementation of the IPF/IFF Proposals for Action and the MAR format for SFM in the ASEAN region.

So far, the guidelines for the implementation of the Intergovernmental Panel on Forests/Intergovernmental Forum on Forests (IPF/IFF) Proposal for Action and the MAR Format for SFM in ASEAN based on "the ASEAN Criteria and Indicators for Sustainable Management of Tropical Forests" (ASEAN C&I) 2006 are being developed in consultations among ASEAN member countries. The ASEAN Start-up Workshop for the Field Trial on Application of ASEAN C&I 2006 and "ASEAN Guideline for the Implementation of the IPF/IFF Proposals for Action" was conducted in Phnom Penh, Cambodia in 2007, as an awareness campaign to get involvement from all relevant forestry stakeholders. Within this process, the drafted guideline and the MAR format for SFM in ASEAN are being tested in Cambodia by Cambodian National Task Forces (NTF).

Participation in a Policy Round-table Discussion of ASOF from which the ownership and commitment for regional cooperation in forest policy, the common understanding on principles of regional forest policy and on the effectiveness of the International Arrangement on Forests have been gained. The Policy Round-table Discussion gives additional knowledge to Cambodia in its preparation of reports for United Nations Forum on Forests. Cambodia also designates two NPs, Virachey NP and Preah Monivong NP as ASEAN Heritage Parks.

Cambodia also signed up to undertake the goals determined by the Millennium Resolution and Millennium Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region as part of its commitments to the participation of local communities in fisheries management. The Resolution,

paragraph 5, states that: "states should encourage effective management of fisheries through delegation of selected management functions to the local level." The Plan of Action, paragraph 1 of Fisheries Management, also emphasises that "states should establish and implement comprehensive policies for innovative fisheries management, such as the decentralisation of selected fisheries management functions to the local level."

6. Impacts of Biodiversity Mainstreaming on Poverty

No assessment has been made as to how much implementation of biodiversity conservation and development as mainstreamed in the different sectors so far has any particular impact on poverty reduction or social wellbeing. However, a broader picture is given through a mid-term review in 2008 of the implementation of the National Strategic Development Plan (2006-210) in which biodiversity plays an important role.

Cambodia has seen double digit economic growth in recent years, although it continues to be narrowly based. The poverty level remains high, especially rural poverty. Although the poverty level has been decreasing, the pressure on natural resources remains high. The overall poverty level has been estimated to have decreased from 34.7% in 2004 to 30.1% in 2007, a reduction of more than 1 percentage point per year. Poverty levels have declined at all sub-national levels, including from 4.6% to 0.8% in Phnom Penh, from 24% to 21.9% in other urban areas and from 39.2% to 34.7% in rural areas from 2005-2007.

By sector, the increase in productivity of rice per hectare has not been very significant (at a little over the 2005 level, or 2.48 tonne/ha), and is well below the figures for many neighbouring countries. A large potential for increased productivity remains to be realized. Fish constitutes 75% of the total animal protein diet of Cambodians, and fish and fish products are important sources of nutrition for the vast majority of the rural population. About 4.5 million people earn a living out of fishing. The sector contributes about 7% of the GDP and employs 10.5% full time and 34% part time of the total labour force. Several annual bidding forest coupes have been prepared to meet domestic timber demands. Tree planting and forestation activities have all been significantly increased, particularly to meet local demand for energy and construction materials.

The promotion of forest management regimes at national and regional levels, especially the Reduced Emissions from Deforestation and Degradation (REDD) is under way to generate revenue for local communities.

Protection and conservation of the unique eco-systems of Cambodia contribute to sustain the livelihood of all Cambodians either directly from employment in conservation work or from sustainable use of the resources therein. In 2006-07, three eco-tourism destinations have been established and several more destinations are being developed. Community Fisheries (CFi) and Community Forestry (CF) have been promoted for over a decade and there are now 468 CFis and 264 CFs that benefit from access to sustainable fisheries and forest resources respectively. Of a total of 82 Community PAs, 46 have become economically viable and thus encourage their involvement in protection and sustainable use of

resources in defined zones within PAs. In 2006- 07, an area of 3,606 ha of illegally occupied lands was taken back in to protected areas. At least another 215,521 hectares of forest land have been reclaimed from land grabbing and encroachment. However, environmental protection and natural resource management continue to face constraints with regard to institutional and legal framework, in particular the weak coordination among concerned agencies and authorities.