

Cambodia Environmental and Climate Change Policy Brief



Tour guide from the Community-Based Ecotourism (CBET) Committee of Chambok in front of an information board highlighting the ecosystem services provided by bats. Photo: Göran Ek

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Executive Summary

The Swedish Government has identified environment and climate change as one of three thematic priorities for development cooperation. This Environmental and Climate Change Policy Brief has been written as an input to the Swedish results strategy process for Cambodia, aiming to summarise the key environmental challenges, constraints and opportunities and their links to development and poverty reduction in Cambodia.

From this brief review it can be concluded Cambodia's diverse ecosystems have been important for economic growth and contributed to improved living standards. The rapid economic growth created employment opportunities which contributed to the decline in poverty headcount from 34.7 % in 2004 to 20% in 2011¹, although poverty remains a challenge. Poverty in Cambodia is still mainly a rural problem and more a legacy of decades of internal conflicts and bad governance than lack of resources or opportunities. The manifestation of poverty is often linked to lack of access to good-quality natural resources and productive assets, secure land tenure, and access to markets. The rural poor are facing increasing challenges due to rapid decline in natural resources.

The natural resources have not been managed in a sustainable or equitable manner, which has led to over-exploitation and depletion. The deforestation rate is among the highest in the world and is closely linked to other key environmental problems such as land degradation and grabbing, extinction of wildlife, soil erosion, reduced water tables and general loss of biodiversity and ecosystem services leading to reduced resilience to disasters and climate change. Due mainly to widespread deforestation and associated biodiversity loss, Cambodia is unlikely to achieve the MDG 7 on environmental sustainability.

In addition to the grave deforestation and biodiversity situation, surface water management, (now increasingly critical because of planned and actual dam building on the Mekong in combination with the implications of climate change) land allocation and use, degradation of soil (driven by unsuitable agricultural practices in addition to deforestation) climate change impacts (affecting water regimes and increasing the risk for droughts and floods) are other environmental issues of great concern.

The rampant environmental degradation poses significant constraints to key growth sectors such as agriculture (including fisheries), sustainable forestry and tourism. Loss of ecosystem services and environmental degradation is largely unaccounted for in national accounts and statistics, which imply that real economic growth most likely is significantly lower than what the GDP growth rate indicates. If the over-exploitation of current scope and scale continues it may undermine future socio-economic development, increase greenhouse gas emissions, reduce resilience and the ability to adapt to climate change, and may well induce social unrest and instability.²

Improving governance aspects, including transparency and accountability, control of corruption, and effective implementation of policies and regulation, will be key for Cambodia to transition into a more sustainable development. There are plenty of opportunities for Sweden to support Cambodia to improve environmental outcomes, either indirectly by improving respect for human rights and democracy governance in general, or through more targeted support to specific sectors.

¹ World Bank (2012)

² Particularly if land current land conversion issues are not settled. See for example <http://www.independent.co.uk/news/world/asia/teenage-girl-in-cambodia-killed-during-violent-eviction-7757221.html>

The data, insights, advice and experiences collected during the review all point in the same direction - Sweden can still make a difference to promote a sustainable management of natural resources, effective climate change adaptation and a rapid poverty alleviation based on a green growth perspective.

The *current areas of cooperation* of Sweden in Cambodia - Human rights, Democracy, Education and Climate change – all present windows of opportunities for environmental mainstreaming that can improve transparency, participation and accountability and other crucial aspects of policy implementation to promote good governance in Cambodia. For example can safeguarding rights of local communities to have an improved say on land concessions secure that forests and wetlands that provide significant ecosystem services are not destroyed, the decentralization reform can be supported to include increased empowerment and public participation on decision making on climate change adaptation in provinces and villages, UNICEF who Sweden cooperates with on basic education has developed practices on scaling up and mainstreaming climate change adaptation and disaster risk reduction into the education sector and discussing how an extended collaboration on environment and climate change mainstreaming jointly UNICEF-Sweden could be extended into the education sector is also an opportunity that shouldn't be missed.

In addition the policy brief suggests *that Sweden open up a new area of cooperation* in the next strategy – Environment and Climate Change according to entry values presented by the Swedish Government for the recently started process to develop a Result Proposal for Cambodia.

Because of the large deficiencies in both government capacity and funding for sustainable management of natural resources in the country there seems to be very little risk of “over-crowding” in this sector if Sweden should remain in and expand its engagement, an assertion supported by stakeholders interviewed during the review. Key initiatives in this area could include:

- long-term funding to the Cambodian Climate Change Alliance (CCCA) and taking up coordination duties
- supporting the gender mainstreaming component in the project on Local Governments and Climate Change (LGCC) to ensure that women's concerns on climate change and priorities for adaptation actions are
- backing initiatives by forest communities directed at delivering carbon credits to the Voluntary Carbon Markets
- funding NGOs that help communities set up Community Forestry projects
- support to the Forestry Administration in establishing and managing Conservation areas
- capacity building at the Ministry of Environment
- joint programming with other donors on sustaining the ecosystem services of the Mekong and Tonle Sap
- helping the Ministry of Mining and Energy to enhance rural electrification
- assisting in the implementation of the Green Growth strategy,

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1. Introduction

The Swedish Government has identified environment and climate change as one of three thematic priorities for development cooperation. This is reinforced in the Swedish policy on environment and climate change in development cooperation concluding that these aspects are a “central point of departure for all development cooperation”³.

This Environmental and Climate Change Policy Brief has been written as an input to the Swedish results strategy process and in preparation of a new results strategy proposal for Cambodia. The results strategy is expected to cover the period 2014-2020. The Policy Brief takes as a point of departure the Millennium Development Goal 7: Ensure Environmental Sustainability, and aims to summarise the key environmental challenges, constraints and opportunities and their links to development and poverty reduction in Cambodia, as well as to the government’s Green Growth policy for 2013 to 2030 (see Annex 6 for TOR). The intention is to facilitate integration of environment and climate change risks and opportunities into Swedish Development Cooperation. Opportunities for Sida and other development partners to supporting improved environmental management are also briefly discussed. The brief has been prepared after a fact finding mission to Thailand and Cambodia in May 2013 followed by a desk study.⁴

Cambodia is endowed with a diversity of ecosystems and natural resources, which forms the basis of the high economic growth during the last decade. However, despite the many jobs created in manufacturing, construction and tourism, adequate numbers of good jobs have not materialized to lift large numbers of workers out of poverty, which is still widespread.

Cambodia is largely a rural economy, with a young population. Amongst the major economic challenges for Cambodia over the next decade will be the creation of youth employment in urban areas and adequate earnings in the agricultural sector and informal economy⁵. Other major challenges to economic growth as well as environmental management include weak governance, such as corruption, abuse of power, and lack of transparency. Natural resources, on which many of the poor people depend, are exploited and land grabs, illegal logging, and opaque concessions are common problems. The low level of transparency combined with low educational levels obstructs accountability, which is particularly relevant for natural resource extraction as there often is a conflict between private gains and public wealth. Table 1 lists some reference indicators for Cambodia.

³ Swedish Government Offices, 2009

⁴ The Environment and Climate change policy brief has been developed by Göran Ek who wishes to acknowledge the invaluable help of Ms Soma Dor, National Programme Officer at the Embassy of Sweden in Phnom Penh, for organizing meetings with relevant stakeholders during the mission. The views expressed in this Environmental and Climate Change Policy Brief are those of the author and do not necessarily represent the views of Sida.

⁵ Morris (2007)

Table 1. Cambodia at a glance – reference indicators

Development indices - Cambodia	Score	Rank	Trend or comment
Human development index (HDI)ⁱ	0.543	138 of 187	Increasing, but still below regional average
Environmental Performance Index (EPI)ⁱⁱ	55 (of 100)	59 of 132	Trend rank 44 of 132 countries (modest improver)
Gini index (household inequality)ⁱⁱⁱ	37.9 (2008 est.)	43 (2004 est)	Positive, e.g. increasing equality
Corruption Perception Index (CPI)^{iv}	22 (of 100)	157 of 176	Not much change, 158 of 180 countries 2009
Press Freedom Index^v	41.8 (of 100)	143 of 179	Negative since 2011
Social Institutions and Gender Index (SIGI)^{vi}		13 of 86 (2012)	Improving since 2009 (27 of 102)
Open Budget Index^{vii}	15% scant or no information	81 of 100	No progress since 2010, some since 2011
Water Dependency ratio^{viii}	75%		High water dependency

Sources: i) UNDP HDI; ii) Yale and Colombia Universities; iii) CIA World Factbook; iv) Transparency International; v) Reporters without Borders; vi) OECD The Social Institutions and Gender Index; vii) International Budget Partnership; viii) FAO Aquastat

2. Key environmental problems and their causes

Cambodia faces a multitude of environmental challenges. Among the most serious are the combined effects of climate change and construction of large dams on the Mekong and its tributaries, which will alter the flow regimes of the river and make them more unpredictable. This will have serious impacts on agriculture and fisheries, the two cornerstones of Cambodia's food security and livelihood opportunities.

Other key environmental problems include deforestation, loss of biodiversity and ecosystems, land degradation, natural hazards and disasters, such as floods and droughts, and water pollution. The degradation of forests and biodiversity is in general due to *four key drivers* which are common to the entire Greater Mekong Subregion, namely,⁶

1. Population growth and increasing population density, along with worsening income inequality;
2. Unsustainable levels of resource use, increasingly driven by the demands of export-led growth rather than subsistence use;
3. Unplanned and frequently unsustainable forms of infrastructure development
4. Government policies, along with lack of integrated planning, poor governance, corruption and wildlife crime on a massive scale.

This negatively affects communities and ecosystems resilience to crises, climate change and disasters.

⁶ Adapted from WWF 2013

Climate change: Present situation and trends and projected impacts

Cambodia experiences a tropical monsoon climate. The mean annual *temperature* has increased by 0.8°C since 1960, a rate of around 0.18°C per decade. The rate of increase is most rapid in the drier seasons and the frequency of hot days and hot nights has increased significantly since 1960 in almost every season. Projections of mean annual *rainfall* from different models are broadly consistent in indicating increases in rainfall for Cambodia. This increase is mainly due to the projected increases in wet season rainfalls. Cambodia's coastline may be vulnerable to *sea-level rise*. Sea-level in this region is projected by climate models to rise by 0.18 to 0.56 m in the 2090s, relative to 1980-1999 sea level:⁷

The expected impacts of climate change will not be completely novel, rather it is likely that they will *compound and multiply* current problems and stresses on communities and ecosystems. Sea-level rise will worsen the *salinization of surface and groundwater* resources that is already identified as a problem in all of Cambodia's coastal provinces and one effect of climate change will be to augment this existing problem. In addition to salinization, sea-level rise is expected to increase coastal erosion and may lead to the inundation of economically important coastal infrastructure as well as increase flooding from storms and storm surges.

It is unclear exactly what effect climate change will have on *floods and droughts*, due in large part to uncertainty over changes to the monsoon regime.⁸ It is clear however that the hydrological regime upon which inland fisheries depend will change, in particular in the case of the Mekong, which receives much of its flow from glacier melt from the Himalayan and Tibetan mountain ranges which will become increasingly less reliable. This may make the annual flooding of the Mekong River and Tonle Sap Lake less predictable, and at present it is the unpredictability of floods and droughts that causes the greatest problems, rather than the severity of the events themselves. This condition is also made worse by dam construction on the upper Mekong (i.e. in the Yunnan province of China) and should the countries in the lower basin fulfill their plans for further water infrastructure construction on the mainstream the situation for Cambodia, being a downstream country, would face huge difficulties in predicting water regimes in the face of climate change and human interference with the river's ecosystem.

Climate change impacts on livelihoods

The changes to the length of seasons, combined with the delayed onset of the wet season after a longer dry season, will affect traditional cropping practices meaning that huge undertakings for changing farming methods must be budgeted planned for and implemented.

Increased incidence of livestock disease is also predicted, largely associated with lack of water and grazing land and the long distance to water sources for livestock. Because larger livestock are an important investment and means of savings for farmers, these kinds of impacts can have serious consequences and push people into debt and reduce their financial safety nets, which exposes them to an inability to access cash when faced with other crises. Impact on rice yield is predicted to be significant⁹, yields will decrease under both high and low emission scenarios, not least because of increased incidence of pests and disease.

Cambodian *capture fisheries* are especially vulnerable to the changes in temperature and hydrological flows that are associated with climate change. Such changes could have significant impacts on migration, breeding and spawning patterns while also adding pressure to critical fisheries habitats. In addition, the future of the fisheries sector is also uncertain due

⁷ <http://www.geog.ox.ac.uk/>

⁸ <http://www.ccdcommission.org/>

⁹ NGO Forum 2012

to the predicted mainstream dams that, if constructed, will also impact hydrological flows in the Mekong and to/from Tonle Sap lake.¹⁰

Land conversion: The main driver of changes in land use and in land loss is conversion of state land to farming by large corporations. Many land concessions are given to Vietnamese and Chinese companies, most often in partnerships with senior figures in Cambodian society or their close relatives. Updated and verified statistics on number of land concessions is difficult to find but at least 86 valid economic land concessions have been granted since 1995 covering a land area of about 1,041,144 hectares in 18 provinces throughout the country. However, according to the NGO Forum database, using information collected from different sources, 229 economic land concessions have been granted in Cambodia.¹¹

Deforestation: Forests cover approximately 59% of Cambodia's total land area, corresponding to approximately 10.7 million hectares¹². The Cambodian Millennium Development Goal (CMDG) aims to maintain forest cover at 60% by 2015. However, the deforestation rate of 1.2%¹³ is among the highest in the world and is closely linked to other key environmental problems such as land degradation and grabbing, extinction of wildlife, soil erosion, reduced water tables and general loss of biodiversity and ecosystem services leading to reduced resilience to disasters and climate change impacts. Currently, insecure title over forested land and unclear rights to use de facto open access forest resources mitigate efforts to maintain the forest cover, to secure livelihoods or to contribute to rural economic growth in Cambodia¹⁴.

Lately the expansion of rubber plantations has put additional pressure on Cambodia's forests. Rubber companies from Vietnam (the world's third rubber producer¹⁵), encouraged by prime minister Hun Sen, have received large concessions in Cambodia's north. The circumstances in which these concessions have been granted can best be described as opaque and evictions of forest-dwelling communities to make room for the plantations have been conducted with little regard to the rights of the displaced people.¹⁶

Infrastructure development in the Mekong and its tributaries: The Cambodian hydrological system is dominated by the Mekong River and Tonle Sap Great Lake. About 86% of Cambodia's territory (156,000 km²) is included in the Mekong's basin which is an indication on how sensitive Cambodia, a downstream country, is to developments in the river.

The Mekong is very rich with freshwater fisheries producing 2.6 million tons annually, valued at some US\$2.5 billion¹⁷. Large portions of these fish have life cycles that require migrations of up to a thousand kilometres or more for reproduction.

In 2008, there were only two dams in Cambodia with a combined installed capacity of only 13 MW. However, a number of foreign private and state owned companies are currently conducting feasibility studies for almost a dozen hydropower projects in Cambodia along the Mekong mainstream and its tributaries.¹⁸ With the Mekong mainstream dam projects planned in Laos and Thailand, all reaches of the Mekong inundated by the mainstream reservoirs would no longer experience the ecologically important transition seasons which play an

¹⁰ <http://www.ccdcommission.org/>

¹¹ http://www.landgovernance.org/system/files/Cambodia_landacquisition_impacts_indigenouspeople.pdf

¹² Ibid.

¹³ World Bank (2012)

¹⁴ FAO (2010a)

¹⁵ The Economist May 18th 2013

¹⁶ Global Witness 2013

¹⁷ http://www.unwater.org/downloads/Blue_Harvest.pdf

¹⁸ <http://www.investincambodia.com/power.htm>

important role in triggering biological processes within riverine and floodplain habitats. If all mainstream projects were to proceed, Vietnam and Cambodia are likely to suffer net short to medium term losses because the combined effects on fisheries and agriculture would outweigh any power benefits¹⁹ Furthermore, the loss of fish and associated aquatic life due to dams on the Mekong would likely lead to damaging declines in protein intake and nutritional health in Lower Mekong Basin populations. Moreover, an increase in rural poverty is likely²⁰

Conversion of flooded forests and wetlands: The fisheries sector is well documented in Cambodia and it is outside the scope of this report to present extensive information on stocks. However, the reports indicate that the country has reached its maximum sustainable yield of approx. 400,000 tons per year. In 2008, 81% of this total was freshwater capture fish, 12% marine capture fish and 7% aquaculture.

Nevertheless, there are widespread reports²¹ of a significant loss of healthy fish habitats due in a large part to conversion of flooded forests and wetlands into crop land, thus leading to an increase in use of pesticides in and around traditional capture fish production areas. The IFPRI²² estimates that 1.3 million litres of pesticide were used in and around the Tonle Sap Lake as long ago as 2000²³, this figure is likely to have grown considerably since.

Degradation of soils and pesticide use in agriculture: In general, most of the soil types identified have a rather low natural fertility and in many provinces a process of soil degradation is apparent due to depletion of essential minerals. Traditionally Cambodian farmers use mainly animal waste and compost to improve and maintain soil fertility. More recently such practices are being supplanted by use of chemical fertilizers. Average household use of fertilizers has now reached 115 kg for each production season. About 90% of the chemical fertilizers and pesticides in Cambodia are illegally imported from neighbouring countries such as Vietnam and Thailand, many of which are sold without labels in Khmer or English and without proper instruction on how to use them²⁴.

Depletion of Biodiversity: Prior to the era of the long Indochina war period 1945-1991 Cambodia was home to significant populations of large mammals like the Asian elephant, Tiger, Javan rhino, Leopard and Sambar deer. The breakdown of civil administration, abundance of automatic weapons and the need of warlords and guerrilla to finance their operations by exporting illegal timber seriously depleted this natural resource

Specific drivers to biodiversity loss include *land conversion*, due to government-approved economic land concessions, to private companies for rubber plantations, agriculture, mining, large-scale tourism, and other economic activities also contributes to biodiversity loss as well as *infrastructure development in natural areas* (roads, dams, urbanization) that open up forest land to further development. And an increasing illegal wildlife trade²⁵

Increased pressure on marine and coastal zones: Cambodia's marine and coastal zone plays an increasingly important role in the country's development, supporting the industrial, agriculture, fisheries and transport sectors and offering growing attraction for recreation and tourism.

Coral reef coverage is estimated to be 2800 ha along the Cambodian coastline and totalling 28km², with the most extensive coverage occurring in Kampot and Sihanoukville. In addition,

¹⁹ International Centre for Environmental Management, (2010)

²⁰ Orr, S et al (2012).

²¹ EU 2012

²² International Food Policy Research Institute

²³ Ibid.

²⁴ EU (2012)

²⁵ <http://www.conservation.org/where/asia-pacific/cambodia/Pages/issues.aspx> accessed 2013-06-12

coral reefs are abundant around most of the islands off Cambodia's coast. These reefs are threatened by overfishing, harvesting of corals (for trade), degradation of the water quality and the use of destructive fishing practices (such as dynamite or 'blast fishing').

Significant areas of Cambodia's shallow, protected coastal waters offer a suitable habitat for *seagrasses*²⁶, providing nursery grounds for many different species of fish, and crustaceans and other invertebrates (including endangered marine species such as, dugongs and seahorses). Cambodia's coastal zone houses one of the world's largest seagrass areas consisting of eight known seagrass species. There are strong indications of widespread seagrass habitat destruction due to degradation of water quality through increased turbidity (caused by forest clearing, sand dredging, reclamation activities, etc.) and destructive fishing practices (trawling and push nets).

There are estimated to be 85,100²⁷ ha of *mangroves* in Cambodia along the Gulf of Thailand. Despite this status, annual rates of mangrove loss have accelerated from 1.6% between 1990 and 2000 to 1.9% between 2000 and 2010. Mangrove clearing is being undertaken illegally for use as firewood, charcoal production, saltpan investments, land reclamations and intensive shrimp aquaculture. The combined effect is of significant concern since mangrove ecosystems are highly productive and play an essential role in the lifecycle of many marine organisms. The pressures on mangroves, through competing resource uses, are of ecological and economic significance not only for Cambodia but also for the region.²⁸

3. What are the effects of the environmental problems?

The natural resources in Cambodia are threatened by short-sighted overexploitation on an increasing and threatening scale. This reduces the country's overall natural capital, yet whilst great benefits flow to the few; equally great burdens fall on the many, in particular the rural communities whose well-being and livelihoods are based on natural resources management. If the over-exploitation of current scope and scale continues, Cambodia's future socio-economic development is at risk.

This section presents a summary of the main impacts of the environmental problems, to the country's poverty reduction efforts, to public health as well as to economic growth.

3.1 Impacts on poverty

Besides agriculture, fisheries and forest resources play a critical role supporting livelihoods in Cambodia, especially in providing diversifying subsistence and income-generating activities. Combined they provide a safety net to families during difficult times. Between 20% and 58% of household income derive from common access resources including fuel wood, fishery, and resources provided by the mangroves (with heavier reliance among poorer households).²⁹ Amongst the poor, a quarter depended solely on fishery and forestry products for over half of their income in 2004.³⁰

²⁶ <http://www.mekonginfo.org/assets/midocs/0001627-environment-mangrove-forest.pdf>

²⁷ Ibid.

²⁸ Ibid.

²⁹ World Bank 2006

³⁰ PEP 2005

Lack of assets

The people living in poverty face a number of interlocking and mutually reinforcing problems, including lack of secure land tenure, remoteness from markets and services, lack of productive assets, lack of access to decision-making processes, low levels of education and high dependency ratios.³¹ Land is one of the high-value resources, and land grabbing a serious problem.

For instance, when forest land is given away to private companies through *land concessions* the space for rural communities to access natural resources, particularly non timber forest products (NTFP), is reduced and might trigger migration to cities where they are at a risk to become marginalized and without secure employment. A similar problem arises when *fishing lots* in rivers and Tonle Sap lake are given away to private investors. Both food security and income generation opportunities are seriously hampered as the possibility to find protein and sell excess fish catch on local markets are reduced.³²

Vulnerability

Cambodia is one of the most disaster affected countries in South East Asia³³, and the impact of these disasters is felt most in rural areas, where the large majority of the poor live. Over the past 10 years, Cambodia has been affected by a series of exceptional floods and by widespread, but highly localized, agricultural droughts. As Cambodia's (rural) poor already are disproportionately dependent on public goods for their livelihoods, declining quality of, or access to, natural resources negatively affects the poor disproportionately. Additional (to current serious factors like land conversion and biodiversity depletion) stresses caused by climate change induced floods and droughts will hit the poor hard. The people living in poverty are more vulnerable to external shocks due to limited asset base, livelihood opportunities and little access to decision-making, and have less ability to adapt to environmental changes. The new dams on the lower Mekong and the expected, but still unchartered, impacts on rural livelihoods³⁴ they will cause is also an issue of concern as regards vulnerability.

Security

Lack of security is a fundamental dimension of poverty. The main environment-related security issues in Cambodia are related to decreasing resilience of ecosystems, unreliable access to food and water, lack of secure tenure to land, lack of access to resource-based safety-nets such as goods and services from the natural commons (forests, fish, etc), low ability of households to accumulate assets including natural capital, pollution, and existence of conflicts over resources. Women are disproportionately at risk from environmental degradation, conflicts, and natural disasters, due to gender roles, and historic, cultural and socio-economic reasons.

More than six million people work full-time in fisheries and fisheries-related activities, and fish and rice are an integral part of the nation's staple diet. Fish and other aquatic animals provide more than 80% of the total animal protein and much of the essential minerals and vitamins in peoples' diets.³⁵ The importance of sustaining the services of the Mekong river is therefore both an issue of security as well as a matter of public health

³¹ World Bank, 2006.

³² Pianporn Deetes, International Rivers, pers comm

³³ , UNDMT 2011

³⁴ <http://www.internationalrivers.org> accessed 2013-06-12

³⁵ EU 2012

For the past decade and at the current time, the political situation in Cambodia has been rather stable, albeit with strong undercurrents of strain. Some of the issues are pointed out in this policy brief – rampant destruction of biodiversity as the livelihoods basis for many people, severe shortcomings in governance, and, not least, land conflicts – could lead to a situation where the existing firm grip on political power may be challenged, leading to violent reprisals by the state. There have been incidents where state security forces have used gunfire to stop peaceful opposition land-grabs by powerful government-backed business and security interests, and the well-known environmental activist Chhut Wutthy was shot dead after military police and company security guards stopped him from documenting illegal logging activities in Koh Kong province.³⁶

Gender aspects

The depletion of biodiversity and natural resources hits women hardest. They often have a key role in rural households of refining and monetize the “harvest” from fields, forests and fisheries for example by selling excess fish catch at local markets or manufacture handicraft from NTFP for urban consumers and tourists. This position enables them to wield influence both in the family and in the community given their importance for access to financial resources providing added value to the subsistence-based economy.³⁷ When a natural resource-based livelihood no longer is possible in a household due to biodiversity degradation or an infrastructure development, the women lose this position and opportunities for alternative employment (like working on dam construction or at a plantation) arising is usually open only for men.

3.2 Impacts on economic development

Cambodia’s impressive growth rate in the last decade has been fuelled by the *extraction of its natural resources* with almost no apparent consideration of the more long-term effects on poverty, food security or prospects for sustainable growth, and with low levels of reinvesting in development activities. The rapid and wide-ranging destruction of forests, coastal areas, soil and fishing areas bear witness to this development. The threat of large-scale hydropower developments, augmented by the expected effects of climate change, puts the entire hydrological system of the country, and with it, rich inland fish habitats, at risk.

Drivers of these unsustainable trends are short-sighted business and political interests in the country, often in collusion with likeminded groups or individuals from neighbouring, nearby or overseas countries. A widespread lack of environmental knowledge and awareness, combined with ineffective and sometime directly corrupt governance and a profound lack of accurate environmental information augments the problems.

Can Cambodia *sustain the rapid growth* for more than a short number of years especially when climate change impacts become more apparent and put *additional stresses on the ecosystems*? The expected increased frequency of flood and droughts³⁸ will impact current extraction practices from forests, agriculture and fisheries and need so be replaced by methods and policies that take climate change, long-term sustainability and equity into consideration

A committed implementation by RGC³⁹ of its *Green Growth Strategy* combined with measures to *secure land rights for rural societies* and promoting *community forestry and fishery* initiatives would provide a way forward. However, implementation has shown to be weak this far.

³⁶ <http://www.hrw.org/news/2013/02/01/cambodia-escalating-violence-misuse-courts> accessed 2013-06-12

³⁷ Pers comm from Premrudee Daoroung, TERRA, Pianporn Deetes International Rivers. See also Mehta (2000)

³⁸ Johnsen and Munford (2012)

³⁹ Royal Government of Cambodia

Cambodia's *electrification rate remains low*. It is one of the lowest in Asia, with only 35 % of Cambodians having access to electricity (and only 10% in rural areas). Phnom Penh (around 10% of the population), uses more than 90 % of total electricity consumed⁴⁰ Cambodia considers diesel fuel as the principal source of electricity generation and most of the commercial energy used for power generation, transport, industry, residences and commercial sectors comes from oil. It is imperative for Cambodia and its development partners that rural electrification is accelerated in order that services like education (schools can run in the evenings for adults) , small industries like workshops, better health care (refrigerators for medicines for example) can be established in rural areas. It will also reduce the pressure of forests for fuel, save money for inhabitants not having to buy kerosene etc and enable school children to do their homework!

3.3 Impacts on Public Health

As described in 3.1 the abundance of protein from fish, carbon hydrates from inundated rice fields and vitamins from riverside gardens all depending on the services of the Mekong and its watered by the Mekong provide Cambodians with a *healthy diet*. Badly planned infrastructure development on the river ecosystem may therefore cause malnutrition and other serious health problems in the country if impacts are not mitigated or alternative food sources are developed which might be difficult given the efficiency of the freshwater ecosystem⁴¹. In addition, degradation of soil quality and hence productivity in agriculture due to a sustained use of agrochemicals and unsustainable farming practices is also in issues for concern.

The *low electrification rate in rural areas* means difficulties in keeping food fresh and conserving medicines due to lack of refrigerators, higher incidence of respiratory diseases due to excessive wood fuel use as well as reliance on diesel and kerosene for providing electricity and lighting which contribute to higher risk of household fires and inhaling of unhealthy fumes.

Climate change will favour warm and wet conditions that may raise the incidence of *malaria*. A Ministry of Health report in 2002 estimated that cases of malaria could increase by up to 16%⁴². The same is true of other vector-borne diseases such as *dengue fever*. An increase in vector-borne diseases is likely to predominantly affect poor rural communities who are currently most vulnerable to malaria as they lack access to health care facilities. With rising temperatures the impact on *rice yield* is predicted to be significant, yields are predicted to decrease under both high and low emission scenarios, not least because of increased incidence of pests and disease.⁴³ Reduction in rice yields, the crop being a staple food, is therefore a potential health hazard.

The environmental burden of disease is large in Cambodia. The main causes of under-five mortality are diarrhoea, acute respiratory infections and vaccine-preventable diseases such as measles. According to the Ministry of Planning, 42% of the rural population and 76% of the urban population have access to safe water resources. Poor households have much less access to safe water than higher-income households. 55% of urban, but only 16% of rural, population have access to improved sanitation. Sewerage cover is only about 10% in Phnom Penh.⁴⁴

⁴⁰ Cambodia's Rural Electrification Minigrid Systems, Standard And Regulation (slide pres)

⁴¹ An interesting analysis on alternative food systems of the Mekong can be found at Orr, S., et al 2012

⁴² Johnsen and Munford (2012)

⁴³ NGO Forum 2012

⁴⁴ Johnsen and Munford (2012)

4. Policy framework and institutional capacity for managing environmental challenges

This section summarises the key actors (government, civil society and donors) related to environmental and natural resource management in Cambodia, reflects on the level of environmental mainstreaming in relevant policies, and governance issues are briefly assessed.

4.1 Key actors

The *Council for the Development of Cambodia* (CDC)⁴⁵ serves as the point of contact between the RGC and donor countries, international organisations and NGOs and facilitates coordination of development assistance among ministries and other RGC institutions. The CDC is also responsible for all investment projects in Cambodia, including agriculture and agro-industries.

The *Ministry of Environment* (MoE) has the main mandate for environmental protection. This mandate includes conservation, protected areas (including forest / mangrove management therein), environmental quality, environmental impact assessment and rational use and management of natural resources. However, being a cross-cutting issue, there are many aspects of environmental and natural resource management that are covered by the mandates of other ministries, for example management and conservation of forests outside protected areas are the responsibilities of the Ministry of Agriculture, Forestry and Fisheries (MAFF).

The MoE is the focal point for the UN Convention on Biological Diversity and the UNFCCC through the work of its *Climate Change Department* (CCD)⁴⁶. The CCD's roles and responsibilities include: implementation of the UNFCCC and other climate change-related tasks; advising the RGC on climate change negotiation positions; establishment of national CC policies, plans and legal instruments; identifying and assessing new appropriate technologies for Cambodia to adapt to climate change or to mitigate GHG emissions; promoting research activities and human capacity building, and; act as the Secretariat to the UNFCCC, Kyoto Protocol and the CDM focal points for Cambodia..

Ministry of Agriculture, Forestry and Fisheries (MAFF) has jurisdiction over all agricultural crops, livestock, fisheries and forestry as well as management of ELCs⁴⁷. MAFF is the RGC focal point for the United Nations Convention to Combat Desertification (UNCCD). The *Forestry Administration* (FA) is responsible for protection and management of forest resources, forest and wildlife inventories and wildlife conservation. The *Fisheries Administration* (FiA) is mandated to provide oversight to the inland and marine fisheries sector and aquaculture. This remit includes administration of community fisheries under the Department of Community Fisheries Development (CFDD) and of the Inland Fishery Research Development Institute. FiA also manages flooded forests and mangroves in Cambodia where they do not fall within Protected Areas.

Ministry of Water Resources and Meteorology (MOWRAM) is mandated to take the leading role in water-related activities, with the aim of ensuring social and economic development, equitable and sustainable use of water for livelihoods, and enhancement of environmental quality .The Tonle Sap Authority (TSA) was created by Royal Decree in 2009 under MOWRAM, with an advisory and communication role among all stakeholders.

⁴⁵ <http://www.cambodiainvestment.gov.kh/>

⁴⁶ <http://www.camclimate.org.kh/>

⁴⁷ Economic Land Concessions

The Ministry of Industry, Mines and Energy (MIME) is responsible for developing, implementing and managing RGC policy, strategy and plans with regard to energy, mineral extraction and industry (including SMEs). MIME has the responsibility to coordinate electricity sector policy, planning and development, though new projects and plans are subject to EIA under the jurisdiction of MoE.

Cambodia Climate Change Alliance (CCCA): In 2007, the European Union agreed to build a Global Climate Change Alliance between the EU and the developing countries that are likely to be hardest hit by climate change. Cambodia was selected to be a pilot country. UNDP supported an expansion of this vision by facilitating the participation of other donors, initially Sweden and Denmark. In October 2009, the National Climate Change Committee (NCCC)⁴⁸ held Cambodia's first National Forum on Climate Change. The Cambodia Climate Change Alliance (CCCA) was announced at the forum by the EU and UNDP and formally launched in February 2010. The expected results of CCA are:

- Capacity development: The National Climate Change Committee has stronger capacity to coordinate efforts on national policy making, capacity development and outreach/advocacy, and to monitor the implementation of the National Climate Change strategy and Action Plan.
- Awareness-raising: A knowledge-management and learning platform operates to provide Cambodia with updated knowledge and opportunities to learn about climate change. This mechanism collects experiences and best practices from the region as well as Cambodia and disseminates them beyond the RGC to civil society and the broader community of practice.
- Grants: key line ministries, agencies and civil society organizations have access to financial and technical resources to design, implement and monitor climate change adaptation interventions.

Pilot Program for Climate Resilience (PPCR) PPCR is a targeted program of the Strategic Climate Fund (SCF), which is one of two funds within the framework of the Climate Investment Funds (CIF) coordinated by the World Bank. In Cambodia the program will tap US\$86 million in grants and near-zero interest credits to support investments to improve the climate resilience of Cambodia's core water management, agriculture, and rural infrastructure, as well as provide financing to enhance the capacity of Cambodia's institutions to effectively mainstream climate resilience into development planning.

4.2 Policy and planning⁴⁹

The 'Rectangular Strategy for Growth, Employment, Equity and Efficiency – Phase II' is the RGC's overarching socioeconomic development policy agenda for the Fourth Legislature of the National Assembly (2008-2013). The Rectangular Strategy is built on four fundamentals, including 'Ensuring environmental sustainability, especially through sustainable management and use of natural resources', and describes four growth areas that are prioritized by the RGC. Principle activities for the RGC in its fourth legislature include: i) accelerating land reform; ii) public financial management reform; iii) further implementation of the decentralization policy to transfer power from the national to sub-national administrations; iv) fisheries reform,

⁴⁸ The Ministry of Environment established the National Climate Change Committee (NCCC) in 2006. The NCCC comprises senior policy-makers from 19 ministries and serves as a policy-making body that coordinates the development and implementation of policies, plans, and measures to address climate change issues within Cambodia. The NCCC is set as the focal point for all engagement on climate change within the Government of Cambodia.

⁴⁹ If nothing else is mentioned the section builds on Johnsen and Munford (2012)

including strengthening national resource conservation and taking serious action against illegal encroachment of flooded forests in order to secure fisheries resources; and v) forestry reform, including law enforcement, effective management of Protected Areas, climate change actions and Community Forestry.

The *National Strategic Development Plan (NSDP)* is intended to serve as the implementation tool or roadmap for implementation of the Rectangular Strategy – Phase II. The current NSDP, running 2009-2013, sets a national target of 60% forest cover, 450 approved community forests (noting that there are currently only 420 community forests at various stages of development) and reducing fuel wood dependence by 2013. It also mentions the importance of the new National Forest Programme (NFP) as the strategic framework for the forestry sector and the role of protection forests, protected areas (PA), community forests and improved management of forestry concessions towards achieving the national target of 60% forest cover. According to prevalent law a new planning cycle for the NDSP for 2014-2018 is underway, spearheaded by the Ministry of Planning (MOP). In the instructions issued in April 2013⁵⁰ MOP requests line ministries to identify climate change risks surrounding their sectoral activities and to come up with measures to address climate change impacts as well as capitalise on the merging opportunities in their respective sectors when they provide input to the NSDP.

A Royal Decree enacted in 2008 established the *National Committee for Sub-National Democratic Development (NCDD)* to coordinate and lead the implementation of the Organic Laws, including reviewing functions and responsibilities of various line ministries/institutions, departments, units and other RGC authorities at all levels in order to identify the service delivery functions, responsibilities, powers and accountability that should be transferred to sub-national levels of RGC. The NCDD has drafted a 10-year policy framework, covering the period from 2010-2019, called the National Program for Sub-National Democratic Development (NP-SNDD) and associated implementation plans.

National Policy on Green Growth: Currently the growth in Cambodia mainly comes from simple extraction of natural resources and from cheap, rather unskilled labour. The main benefits from this are siphoned to the wealthier strata of society through intricate and mainly hidden flows. Only a few Cambodian companies apply more sophisticated economic models, which include skilled production, innovation and sustainable growth, and very few consider items such as energy efficiency, zero-waste technologies or training of labour beyond the meanest qualifications. The very few that do are highly needed as pioneers, role models and ground-breakers for a different economic and social model to take hold and serve as basis for longer-term, equitable and Green Growth.

A Green Growth Roadmap was produced in 2009 with support from UN agencies and donors, with later follow-up meetings. The Roadmap states: “Effective environmental protection and natural resource management is a sectoral concern; many governmental actions to protect the environment and manage environmental impacts should be integrated with investment and policy priorities. There is also a need to incorporate sustainability impact assessments and compliance procedures in new project screening requirements. Therefore, the government should strengthen the capacity of MoE to plan and implement projects, including monitoring, enforcement, and strengthening of compliance according to the existing environmental legislation”. As may be derived from this quote, the Green Growth roadmap, so far has its institutional home in MoE, and more powerful institutions are invited as participants. Nonetheless the initiative has a strong potential by being a serious attempt at combining natural resource management and growth in positive ways.

⁵⁰ RGC 2013b

In addition, Cambodia has signed a memorandum of understanding on green growth cooperation with South Korea's Global Green Growth Institute (GGGI).

In March 2013 the inauguration of the National Council on Green Growth (NCGG) and the General Secretariat for Green Growth (GSGG) was officially held and the RGC has adopted a Green Growth policy for 2013 to 2030.

At the same time the Green Growth Master Plan or “National Policy on Green Growth” was approved by the Council of Ministers. According to the document the purpose of the plan is *“to strike a balance of economic development with environment, society, culture, and sustainable use of national resources through integration, matching and adaption, as well as harmonization between a green growth principle and national policy”*⁵¹

Intermediate targets and strategies for obtaining the purpose are notably lacking in the document which makes it difficult to use as a basis for planning but according to officials in the donor community a companion document in the form of a strategic plan is forthcoming.

4.3 International donors' priorities in the environment sector

Cooperation and coordination between RGC and donors is in general guided by the Strategic Framework for Development Cooperation Management which *“reaffirms the role and responsibilities of line ministries and agencies for external resources mobilization and aid coordination functions in accordance with existing Laws and Regulations of the Kingdom of Cambodia.”*⁵² Under this framework a number of technical working groups (TWGs) – for instance on forest, fisheries and environment – coordinate and plan work in various sectors.

Compared to other LDCs relatively few bilateral donors are represented in Cambodia. In recent years, three like-minded donors have withdrawn their aid portfolios from the country: Great Britain, Canada and Denmark. In addition to Sweden, only Germany, France and to some extent Spain are significant bilateral actors in EU circles. For fiscal reasons also Spain might end its assistance. UN organisations and the ADB play important roles and the EU delegation has strengthened its presence. The EU has a particularly important role in “green sectors” such as land management, agriculture, climate and environment.

Current donor programs in the environment sector are listed in Annex 4.

4.4 Civil society

Civil society engagement in the environmental and natural resources sector is strong in Cambodia, filling the “gap” caused by the lack of capacity in RGC. CSOs are active in most sectors and working on resource mobilisation, research, service delivery, advocacy and capacity development. This report does not have the scope to summarise all the major civil society actors but in Annex 3 there is a description of some of the NGOs playing an important role in environment and natural resources management in Cambodia.

4.5 Governance and implementation

A casual observer of governance in Cambodia might be impressed by the elaborate set up of RGC and the division of tasks among different ministries. Key elements for an environmental policy and legislative framework are in place, but environmental management and implementation is very weak. Formal structures and titles in Cambodia do not necessarily reflect actual influence. Persons with close personal affiliation to leading politicians (such as

⁵¹ RGC 2013

⁵² http://www.cdc-crdb.gov.kh/cdc/aid_management/strategic_framework_eng_final.pdf

advisors to the Prime Minister) may wield more power than people who are their nominative superiors.⁵³

The key issue for Public Financial Management (PFM), from an environmental perspective, is *the disconnect between environmental policy and regulation* on the one hand, *and public investment decisions* on the other. Furthermore, most major public investment decisions are made without compliance with the provision of the Environment Law, which require public scrutiny, especially environmental and social impact assessment. The MoE does not have the power to insist on such compliance⁵⁴. The *lack of implementation* of existing regulations and policies is a great challenge to environmental governance. Another challenge is and the non-transparent, illegal sale and leasing of public property⁵⁵.

As other cross-cutting issues, responsibility for environmental management is divided between different ministries and agencies. There are some *gaps or overlaps* of roles and responsibilities among different agencies in key functional areas, including land tenure administration, coastal and marine resource management, wildlife conservation and protected area management.

Work has been delegated to commune councils without adhering powers. They have “neither substantial financial resources, a full formal natural resource management mandate, control over the security apparatus, nor sufficient clout in the political hierarchy”.⁵⁶

Capabilities vary greatly from one department to another, even within the same ministry. Hard-working and dedicated individuals, e.g in the climate department of MoE, do their utmost to set a personal example to colleagues on how to work efficiently despite lack of administrative and budget resources but they still remain too few. In general, ministerial *capacities* remain affected by low public servant wages, nepotism and corruption – especially relating to purchasing of promotions. Of specific relevance to the natural resources management sector is the lack of transparency and accountability and/or delays in hiring of new staff for several years (e.g. FA and FiA).

In sum, the RGC does not manage its environment and natural resources in a sustainable way. Governance remains the weak link. Top-level political will to implement good governance practices is crucial but it appears to fluctuate. The institutions responsible for natural resource management and the companies operating in Cambodia need to be made more accountable and transparent. Poor governance leads, amongst others, to inequality in land holdings which weaken future economic growth. It contributes to deforestation and misuse of the country’s natural resources.

If and when the revenue base (e.g. from extractive industries) turns out to be large, external monitoring mechanisms would be useful in reinforcing accountability in the sector. In particular for revenue collection, the Extractive Industries Transparency Initiative (EITI) provides a process and label to strengthen accountability and to signal Cambodia’s commitment to transparency. *However, after initially agreeing to endorse the EITI, the Cambodian government has announced that it will not endorse it.*⁵⁷

⁵³ Johnsen and Munford (2012)

⁵⁴ For instance, the sub-decree on EIA Process (1999) states that Environmental Impact Assessments (EIA) must be submitted to MoE for review and approval prior to projects that may have negative environmental impacts. However, if the review is not conducted within the time required, the EIA is considered approved.

⁵⁵ Kato et al., 2000

⁵⁶ Sedara et al., (2009)

⁵⁷ Publish what you pay, EITI, and Open development websites.

Budget transparency is a central feature of good governance. Non-transparent budget processes or revenues, off-budget activities, and poorly managed expenditure systems, makes it hard for the public to monitor budget allocation and implementation. When a country receives a large share of its income from other sources than the public (e.g. from taxation) – i.e. from aid or resource rents – there is less pressure for political participation or disclosure of public budgets⁵⁸. Dialogue on budget transparency is therefore often a priority issue in international development cooperation.

The International Budget Partnership⁵⁹ has created an Open Budget Index (OBI), which ranks the countries based on information from open budget surveys. The Open Budget Survey 2012 finds that Cambodia fail to meet even the most rudimentary level of transparency and accountability of its national budget (see Table 1). Without a serious effort to improve public financial transparency and accountability, for instance by opening the budget to the public, the poor will play a high price in terms of their human and physical capital. In the longer perspective, both the nation and the region will suffer; ecosystem, biodiversity and natural resource loss giving wide range consequences for all people.

However, transparency in itself is not enough; it should be combined with *participation* of empowered stakeholders⁶⁰. In order to be able to participate constructively, citizens must both have the possibility (i.e. be invited) to participate as well as the capacity to process information and act on it. Therefore, education and a free press are important components⁶¹. In Cambodia, limitation in the freedom of press is a severe constraint to accountability since media play a central role in ensuring the rights to access information.

5. Risks and opportunities

The present environmental situation in Cambodia might look gloomy, especially in the shadow of accelerating climate change. However, if there is a genuine will to implement the environmental policies and regulation, and social safeguards, there is room for a seasoned optimism that Cambodia can rise to the dire challenges the country is facing. Here is a brief outline of the main risks and opportunities in the environment and climate change sector:

5.1 Risks

- 1) Blocking and alteration of the flow regime of the Mekong river caused by dams constructed on the mainstream and the main tributaries, both in Cambodia and upstream. This will impact fisheries heavily and hence the food security of the country
- 2) Continued deforestation at the present unsustainable rate which will affect livelihoods, biodiversity and maintain soil erosion
- 3) Degradation of soil quality and hence productivity in agriculture due to a sustained use of agrochemicals and unsustainable farming practices
- 4) Degradation of marine and coastal zones due to mangrove loss and degradation of coral reefs and seagrass beds
- 5) Integrated with the abovementioned risks are the climate change impacts which, although not novel, will significantly exacerbate impacts of those. The many marginalized and

⁵⁸ Kolstad et al. (2008)

⁵⁹ The International Budget Partnership is formed by the US think tank *Center on Budget and Policy Priorities*, which conducts research and analysis to help shape public debates over proposed budget and tax policies, to help ensure that policymakers consider the needs of low-income families and individuals, and develops policy options to alleviate poverty. <http://internationalbudget.org>

⁶⁰ Chene (2011)

⁶¹ Kolstad and Wiig (2007)

- vulnerable communities in the country, lacking the capacity to deal with climatic shocks, are likely to be most affected by climate change and the additional stresses this may bring
- 6) The lack of investment capital to promote renewable energy both in urban and rural areas lead to an over-dependence on imported fossil fuels and is a driver to escalate dam constructions with implications for food security

5.2 Opportunities

- 1) The RGC having launched a *national green growth agenda* that provides “political space” for progressive policies on environment and climate change
- 2) The links between proactive environment/climate change policies and employment are underrated in Cambodia. There is a huge potential for “*green jobs*” in the forestry, fishery, (provided that the slow process in developing forestry/fishery allotments to communities is accelerated) agriculture and ecotourism sectors. Promoting organic agriculture is also a “sleeping giant”⁶². There is a great potential to support organic farming in Cambodia, which would make the products cheaper to produce and at the same time sustain poor farmers income as well as boosting regional trade when the growing middle class in the region will create a demand. Under the EBA⁶³ agreement with the EU organic products could also be exported to the European market without tariffs.
- 3) *Payment for Ecosystem Services* (PES) is also a not fully developed instrument where income generating initiatives could be undertaken.
- 4) Positive synergies between the *human rights and natural resources* sectors could be obtained by:
 - promoting secure land tenure,
 - promoting transparency of resource rents, budgets, concessions, etc. and thereby enhancing accountability and fighting corruption,
 - strengthen legal measures to stop land grabbing and,
 - expand grassroots’ influence on decision-making processes on large scale infrastructure investments like dams, irrigation projects and transport links. This practice will both serve to defuse tensions between policy makers and the public as well as provide better basis for decision on development benefits.
- 5) Continued mainstreaming of climate change in the reform on *Democratisation and De-concentration programs* will have the combined benefit of strengthening knowledge on the issue among local people and increase public pressure on local councils to implement adaptation policies
- 6) As such a big part of Cambodia’s poorer rural population – some sources mention numbers over 70% - are directly dependent on forests for a small but often important element of their livelihoods. If Reduced Emissions from avoided Deforestation and Degradation (REDD) are to be implemented on any meaningful scale in Cambodia they therefore carry important opportunities and threats for poor people in the country. However as the international community still has to agree on how to make the REDD mechanism under the UN Climate Convention operational the potential for enhancing local livelihoods through *Voluntary Carbon Market initiatives* could be a quicker way to provide income for forest-dwelling communities and at the same time providing incentives for forest conservation.

⁶² The potential of organic agriculture in Cambodia is promoted by donors such as IFC and giz who provide financial support to The Cambodian Organic Agriculture Association (COAA)

⁶³ The EU’s “Everything But Arms” arrangement (EBA) was born in 2001 to give all LDCs full duty free and quota-free access to the EU for all their exports with the exception of arms and armaments.

- 7) *The NGO community in Cambodia represents a wide range of stakeholders and they form a diverse and vibrant positive force in Cambodia's development strategies.* Until the capacity of RGC is sufficient to conduct a successful poverty alleviation policy, an ongoing dialogue on key policy reforms between the RGC, its Development Partners and CSOs is an important premise for successful development cooperation.

6. Past experience and future cooperation

The overall goal of the Swedish development cooperation with Cambodia is to create favourable conditions for a sustainable and democratic development with increased respect for human rights. The current cooperation focuses on three areas: 1) development of democracy and human rights, 2) education, and 3) climate.

As one of few bilateral donors in Cambodia, Sweden has a special role to play in promoting transparency, accountability, equal rights and opportunities for all. These, together with Sweden's active role in the gender sector, provide a Swedish added value in the Cambodian development context. Sweden also has comparative advantages in areas where there is good Swedish expertise, and where institutional partnerships can be established which means that relations and professional contacts can be maintained "beyond aid."

Cambodia was included in the Swedish Climate Change Initiative, with special earmarked funds for climate change adaptation between 2009 and 2012. In the climate change area, Sweden has supported institutional capacity building in RGC and small-scale adaptation projects on the ground. The Swedish support to the RGC has increased capacity and climate change integration into policies and implementation of climate change activities. The support has also helped making information on climate change more accessible through various media. Furthermore, a climate fund and a secretariat – the *Cambodia Climate Change Alliance (CCCA)* - for funding and coordination of climate change efforts have been established and is well-functioning. Financial support has also been provided to the NGO run *Joint Climate Change Initiative (JCCI)* that aims to develop the capacity of Forum Syd and Danish Church Aid partner organisations to integrate climate change issues into their existing programmes and projects. In addition the UNDP-run *Cambodia Community Based Adaptation Programme (CCBA)* - which aims to enhance the capacity of vulnerable communities in building resilience, mainstreaming climate change in commune development planning and documenting good practices of climate change adaptation - has also received funding. Last, but not least, Sweden is backing climate change integration into the *Committee for Sub-National Democratic Development's (SNDD)* activities by supporting a successful pilot project on *Local Governments and Climate Change (LGCC)*.

According to the embassy the bilateral Human Rights dialogue promoted by the embassy is also a Swedish added value and strengthens Sweden's comparative advantages, not least depending on the high level of competence available in Sweden in the main dialogue areas, from government bodies, NGOs and individuals. Sweden is further seen as an actor without geopolitical self-interest in Cambodia, and Sweden's ability to influence Cambodian actors is therefore expected to be good, even in "difficult" areas. The embassy states also that an emerging Swedish added value is support for collaboration between RGC and industry for increased "educational relevance and employability" i.e. how the education system could be developed to meet the country's needs for a skilled work force.

Recently the entry values for the coming strategy process have been presented by the Swedish Government which clearly state environment and climate as one of three prioritized areas.

This situation opens up for a more in-depth discussion on formulating Swedish support to this area.

7. Conclusions and Issues for Sida to consider

7.1 Conclusions

From this brief review it can be concluded that Cambodia is faced with extensive environmental challenges, with grave effects on human health, ecosystem vitality and long-term sustainable development. Especially the water resources, fish and forests are at risk, and communities' access to land and natural resources is at risk.

Cambodia's diverse ecosystems have been important for economic growth and contributed to improved living standards. However, the natural resources have not been managed in a sustainable or equitable manner, which has led to over-exploitation and depletion. Environmental management and environmental protection is both an end in itself and a means to sustainable development. Poor environmental quality, on the other hand, increases poverty, causes diseases, and affects living standards, food security and livelihood opportunities negatively, and complicates long-term economic growth.

Poverty in Cambodia is still mainly a rural problem and more a legacy of decades of internal conflicts and bad governance than lack of resources or opportunities. The manifestation of poverty is often linked to lack of access to good-quality natural resources and productive assets, secure land tenure, and access to markets. The rural poor are facing increasing challenges due to rapid decline in natural resources.

Key elements for an environmental policy and legislative framework are in place but *implementation and enforcement remains very weak*. Improving implementation and environmental outcomes is not only dependent on legal frameworks and the capacities of the environmental authorities and sector ministries, but also largely on external factors that provide the 'enabling environment'. Measures that strengthen important governance and human rights principles such as the rule of law, transparency and public participation are key in order to improve environmental outcomes.

Weak governance is correlated with negative environmental outcomes and is closely associated with social ills such as corruption, social exclusion, and lack of trust in authorities. Good governance, on the other hand, has the potential to regulate and enforce environmentally sound policies and, as such, to steer individuals and societies into productive outcomes and sustainable use of the environment. Improved governance, combined with pro-poor legal frameworks and processes, may be powerful instruments contributing to poverty reduction and sustainable development.⁶⁴

The deconcentration/decentralisation process may pose new challenges for environmental management. The challenges could, however, be turned into opportunities by sensitive and participatory local planning suitable for the local needs. Decentralisation of power and responsibilities must be matched with the resources for local bodies to carry out their activities.

There is a thus high potential for poverty reduction and pro-poor economic growth provided there are effective regulatory frameworks, rigorous environmental and social safeguards, and the protection of rights. If the pressure for further exploitation (e.g. mining and forest concessions or petroleum extraction) is not met by political will and institutional capacity to

⁶⁴ Ölund Wingqvist et al, 2012

meet these demands, the potential vacuum that would follow is a breeding ground for corruption, abuse of local communities, and unsustainable exploitation of natural resources.

Environmental authorities will continue to be central for promoting the environmental agenda, and their role and capacities need to be strengthened. However, in order to fully integrate environmental and climate change aspects into core development priorities, also other key ministries (e.g. finance, economy, planning) are playing a crucial role.

Environment and climate change is a thematic priority for the Swedish government and should always be integrated into Swedish development cooperation. This review has shown that there are many important linkages between environment (including climate change) and the sectors Sweden supports/may support in the future, namely democracy, human rights, education and job creation. Some suggestions on how to mainstream environment and climate change in these sectors are presented in section 7.2, while section 7.3 presents opportunities for supporting environment (including climate change) as a separate and new sector.

7.2 Issues for Sida to consider - mainstreaming environment and climate into ongoing areas of cooperation

Natural resources, particularly land, subsoil minerals, timber and other forest resources, are economically and socially significant in Cambodia, and make up a relatively large share of the national wealth. Governance is intricately linked to natural resources. Key governance aspects in Cambodia relate *i.a.* to rule of law and control of corruption, transparency and accountability, meaningful participation by empowered stakeholders and a free press.

The current areas of cooperation of Sweden in Cambodia - Human rights, Democracy, Education and Climate change – all present windows of opportunities for environmental mainstreaming that can improve transparency, participation and accountability and other to crucial aspects of policy implementation to promote good governance in Cambodia.

Some suggestions for the various areas are listed below:

Human rights

According to information from Global Witness⁶⁵ there was a 144% increase in arrests over land and housing issues in Cambodia during 2012 compared to 2011 and they noted nine killings of land and forest campaigners in Cambodia between 2002 and 2011⁶⁶. In 2012 three additional killings of activists occurred, the fatal shooting of one of Cambodia's most outspoken activists, Chut Wutty, being the most well-known. Any initiatives Sweden could pursue to protect the rights of free speech for land and forest campaigners during the next strategy period should be a priority in this sector.

Democracy

The decentralization reform is a long-term process but research shows that the reform has resulted in increased empowerment, public participation and improved local infrastructure and services. There is therefore a hidden potential for introducing measures at local and provincial level to facilitate access to information, and the rule of law, particularly in relation to climate change adaptation and other natural resources-related issues – above all land use - so as to increase local communities participation in decision making on matters of importance for poverty alleviation.

Education

⁶⁵ <http://www.globalwitness.org/zh-hans/node/8339>

⁶⁶ <http://www.theguardian.com/environment/blog/2012/may/01/death-cambodian-forest-activist-chut-wutty>

While children are among the most vulnerable to climate change, they need not be considered passive or helpless victims. Through education, projects and action, children can contribute to every aspect of climate change policymaking, mitigation and adaptation. UNICEF works on scaling up and mainstreaming climate change adaptation and disaster risk reduction into the education sector and has produced an excellent manual “Climate Change and Environmental Education”⁶⁷ which provides innovative and “hands-on” ideas on how to pursue this important issue

As Sweden already supports the UNICEF *Basic Education Support program* and *Capacity Development Partnership Fund* there should be opportunities to discuss how an extended collaboration on environment and climate change mainstreaming jointly UNICEF-Sweden could be extended into the education sector

Climate change

Sweden’s initiatives in this sector have been well received by stakeholders. In section 7.3 we provide suggestions on how the current programs can be expanded in the coming strategy.

7.3 Issues for Sida to consider - environment and climate change a new area of cooperation

The data, insights, advice and experiences collected during the review all point in the same direction - Sweden can still make a difference to promote a sustainable management of natural resources, effective climate change adaptation and a rapid poverty alleviation based on a green growth perspective

Given the:

1. Large challenges facing the natural resources sector in Cambodia
2. The important linkages to other Swedish key development priorities
3. The amassed Swedish experience of the development trials facing the country
4. The strong “brand” of Sweden in Cambodia, not least as Sweden is seen as an actor without geopolitical self-interest in Cambodia. This lowers the threshold for the RGC to receive and act upon Swedish advice even in “sensitive” sectors like land concessions, forest conservation, and the importance of a rights-based perspective in dealing with local communities

It is therefore suggested that Sweden open up a new area of cooperation in the next strategy – Environment and Climate Change

Because of the large deficiencies in both RGC capacity and funding for sustainable management of natural resources in the country there seem to be very little risk of “over-crowding” in the sector if Sweden should remain in and expand its engagement, an assertion supported by stakeholders interviewed during the Helpdesk’s fact-finding mission.

The comparative advantages of the EU in the natural resources sector does not, however, make Swedish involvement here obsolete given the reasons mentioned above. A rational division of labour between Sweden and the EU within the framework of a joint programming would therefore be possible in this area and provide many “win-win” opportunities.

The Helpdesk therefore suggests that climate change still will be included in the coming strategy in the new area of cooperation mentioned above

⁶⁷ http://www.unicef.org/publications/files/CFS_Climate_E_web.pdf

With this in mind, please find below issues for Sida to consider related to development cooperation with Cambodia in the Environment and Climate Change sector.

Climate change

Successful climate change adaptation takes time and funding decision need a long term perspective if we are to see a sustained impact, eg. about 15 years. Sweden's involvement in the sector is dating back only to 2009, so there is still time to develop a long term strategy for support in this area.

The establishment of the CCCA and its relative success in supporting policy development, climate change mainstreaming into cross-sectorial policies/strategies and providing small grants for local initiatives serves as an indicator that targeted and well managed donor support and cooperation can make a difference when it comes to sustaining progressive RGC policy in the climate sector.

This and similar testimonies of the raising awareness by the RGC of the importance of the RGC to mainstream climate change considerations into development – such as the directive from MOP to line ministries to identify climate change risks in their sectorial activities in the NDSP for 2014-2018 – suggests that there is a “policy space” for continued Swedish funding to the climate sector and that strong ownership exist by the RGC.

Suggested priorities in the climate sector:

Support CCCA

It is advised that Sweden during the next strategy period *offers a long-term funding to CCCA*.

If the Green Climate Fund (GCF) becomes operational (i.e. starts disbursing funds) during the period and Cambodia find it easy to get access to funding from it, the Swedish contribution to CCCA can be *phased out and replaced by Swedish technical assistance on how to access funds from the GCF*.

Some stakeholders have also asked for donors to *improve the coordination* of their input to, funding of and positions on the CCCA. A burden that Sweden could shoulder?

Gender and Climate change mainstreaming into sub-national planning via Decentralization

Sweden has done well⁶⁸ to support climate change mainstreaming into sub-national planning by funding a successful pilot project on Local Governments and Climate Change (LGCC) through UNCDF⁶⁹, and implemented by the National Committee for Sub-National Democratic Development. As phase II of the project, running up to 2014, now is subject for discussion, it is recommended *that it should be considered to be scaled up from the pilot to expanded program to enhance climate change integration and mainstreaming in local cooperation*. A possible *next step/entry point* for support is the **gender mainstreaming component** which, according to the project document, will ensure that:

- Women's concerns on climate change and priorities for adaptation actions are identified through the use of women's groups in the Vulnerability Reduction Analysis process;
- Women are equally represented in decision-making meetings on the use of the PBCR⁷⁰ grants (this could become part of the performance assessment criteria);

⁶⁸ Ibid.

⁶⁹ United Nations Capital Development Fund. For information on its operations in Cambodia go to <http://www.uncdf.org/en/Cambodia>

⁷⁰ Performance - Based Climate Resilience Grants

- The impact of the climate resilience sub-projects on women will be evaluated as part of the participatory evaluation process.

REDD and the Voluntary Carbon Markets

It is still uncertain about when the REDD mechanism is really operational under the UN Climate Convention and funds generated by the international carbon trading system are made available to Cambodia. If Sweden decides to enter this sector it might therefore be more cost efficient to support initiatives directed at delivering carbon credits to the already existing Voluntary Carbon Markets⁷¹ rather than to fund endless consultations and capacity building activities to facilitate “REDD-readiness” in communities and RGC.

A good role model for how projects aimed at the voluntary markets can be developed is the “The Oddar Meanchey Community Forestry REDD project” run by the NGO PACT in Northern Cambodia.⁷²

Biodiversity

So many Cambodians depend directly on the natural ecosystems for food, water, livelihoods and other vital services and, in addition, the natural resources and ecosystems have been fuelling not only the country’s but the whole Mekong region’s rapid economic development. Contributing to sustaining and protecting the biodiversity of Cambodia Sweden should be perceived as a key strategy to promote green growth and sustainable poverty alleviation the resulting support conservation of plants and animals is just an added benefit..

Suggested priorities in the biodiversity sector:

Community Forestry

Support to NGOs that help communities set up Community forestry projects. They have a key role in acting as an intermediary between communities and RGC and are regarded as “gap-fillers” until enough authority and mandate has been passed down from central to provincial and local governments to allow these institutions to effectively deal with establishing Community forestry projects.

Support to FA in establishing and managing Conservation areas

It costs about 2 USD/ha and year to establish and manage a Forest Conservation area and as the forests of Cambodia are under great threats urgent, relatively small funds can make a big difference. A grant of 3 MUSD yearly for the next 5 years would cover gaps between needs and resources⁷³

⁷¹ In the voluntary market, individuals, companies, or governments purchase carbon offsets to mitigate their own greenhouse gas emissions from transportation, electricity use, and other sources. A typical customer is an individual that might purchase carbon offsets to compensate for the greenhouse gas emissions caused by personal air travel. The voluntary market is not regulated under the UNFCCC.

⁷² The project facilitates the marketing of carbon credits generated by safeguarding 13 community forests in Oddar Meanchey province, covering more than 64,000 hectares of forestland. The credits will be sold on the global voluntary carbon market, with the majority of the net income returning to the participating communities to support the continued development of sustainable livelihoods. The preparatory costs (mapping, patrolling, boundary marking, “carbon brokers” fees etc) for setting up Oddar Meanchey has reportedly been huge and funding constraints remain an obstacle to develop similar initiatives in other parts of Cambodia

⁷³ Pers comm from senior FA official

Capacity building at MoE

The lack of government funds for the MoE, makes it difficult to

- develop and monitor a much needed new biodiversity law⁷⁴
- monitor and protect endangered species, especially large animals
- employ and pay (decently) rangers in PAs in sufficient numbers to control and reduce poaching

Funding for capacity building as well as twinning with SEPA⁷⁵ to enhance staff knowledge and skills on how to manage PAs could be an important contribution from Sweden

Joint programming with donors on Mekong and Tonle Sap

There is a tremendous pressure on watersheds in Cambodia from extraction, climate change and hydropower. Many stakeholders interviewed by the Helpdesk have expressed the need for jointly promoting – donors, CSOs and relevant ministries - a *Water basin master plan for the Mekong watershed* that takes all competing interests into account and identify ways to balance them so as the water resources of Cambodia can continue to be a cornerstone of food security.

Energy sector

Rural electrification

Given the urgency of enhancing off-grid solutions to accelerate electricity access for rural communities Sweden could use experience from the successful project Sida ran in neighbouring Vietnam during 2004-2009 with Vietnam's Ministry of Industry and Trade. Jointly the Vietnam – Sweden Rural Energy Programme (VSRE)⁷⁶ was launched in order to support the acceleration of electrification in the country's rural and mountainous areas through the use of off-grid renewable energy systems, especially small and medium-scale hydropower, solar PV and biogas technology. VSRE was completed in 2010, and was hailed as a success, especially for establishing the future framework for a broader implementation of off-grid renewable energy projects.

Swedish initiatives in this sector could be coordinated with UNDP who together with MIME have begun a process of consultation⁷⁷ to create a national implementation of the UN project “Sustainable Energy for All” – an initiative launched by the United Nations Secretary-General to make sustainable energy for all a reality by 2030⁷⁸.

Initiatives aiming at - successfully - developing energy distribution from other renewable sources than large-scale hydropower could provide an incentive for Cambodia to scale down or at least postpone some of the proposed hydropower projects on the Mekong and its tributaries thereby sparing at least some of the ecosystem services provided by the river for the food security of the country.

Greening the economy

Sida could consider assisting in the implementation of the Green growth strategy, by providing support to improved transparency of budgets, resource rents and concessions. The ‘watch-dog’ function of CSOs could be promoted in order to help improve accountability.

⁷⁴ Current one goes back to 2002 and is outdated according to a senior MoE official

⁷⁵ Swedish Environmental Protection Agency, “Naturvårdsverket”

⁷⁶ <http://www.swedenabroad.com/SelectImageX/289141/LeafletSIDAADBIE1Mar2012.pdf>

⁷⁷ UNDP Cambodia Newsletter Vol. 09, No. 36 October - December 2012

⁷⁸ <http://www.sustainableenergyforall.org/>

Support to transparency, participation and accountability also appear to be crucial aspects of policy implementation. Some examples related to this area include:

- Support to improved transparency of budgets and how resource rents are collected and used. Currently, the actual investment decisions appear not always be visible in the policy statements.
- The Extractive Industries Transparency Initiative (EITI) plays an important role in relation to resource rents. Also the private sector is an important actor in EITI.
- Support to environmental CSOs or NGOs, to improve their watch-dog role and collaborate with environmental authorities to improve monitoring, especially on land management, wildlife and forest conservation;
- Capacity development of CSOs/NGOs, to increase ability to participate meaningfully in policy development, review budgets and financial information, engage in public debate, understand and act on the information that is provided.

Adequate incentives and a proper mix of policy instruments will be important means to implement the Green growth strategy, and promote decent and green jobs (e.g. community forestry, fishery, eco-tourism, better waste and wastewater treatment). The private sector and civil society could be invited to participate in the design of policies and policy instruments, but also be involved in monitoring of compliance. Currently, non-legislative instruments are beginning to gain ground in some aspects of environmental and natural resource management in Cambodia. Other instruments such ‘green budgeting’, environmental fiscal reform, voluntary schemes (e.g. environmental management systems, environmental labelling, industry-government agreements) etc. are still largely unknown, but could be initiated in a in a dialogue.

Support to develop and improve green accounting is another option. If the ecosystems services of Cambodia are better accounted for their economic value for the country’s development could be recognized and the irrational overexploitation of natural resources could be properly judged and calculated. Stockholm Resilience Centre at the University of Stockholm can provide expertise to the RGC.

References

- ADB (2012). *Country Governance Risk Assessment and Risk Management Plan*. Mandaluyong City, Philippines: Asian Development Bank, 2012.
- Ear, Sophal (2006). *The Political Economy of Aid, Governance, and Policy-Making: Cambodia in Global, National, and Sectoral Perspectives*, PhD Thesis, University of California, Berkley.
- Chene, M., 2011. *Good practice in strengthening transparency, participation, accountability and integrity*. U4 Expert Answer No. 274, 18 March 2011.
- CPEIR,, 2012. *Cambodia Climate Public Expenditure and Institutional Review*, Final Report July 2012
- Food and Agriculture Organization of the United Nations (FAO) (2010a). *Cambodia Forestry Outlook Study*. Regional office for Asia and the Pacific, 2010.
- Food and Agriculture Organization of the United Nations (FAO), (2010b), *Global Forest Resources Assessment 2010*
- Global Witness (2013), *Rubber barons*
- International Centre for Environmental Management, 2010. *Strategic Environmental Assessment of Hydropower on The Mekong Mainstream*. Prepared for the Mekong River Commission
- Johnsen, Steffen and Munford Greg (2012). *EU Country Environmental Profile (CEP)*, Royal Kingdom of Cambodia. EURONET Consortium, April 2012.
- Kato, Toshiyasu, Kaplan, Jeffrey A., Sophal, Chan and Sopheap, Real (2000). *Cambodia: Enhancing Governance for Sustainable Development* — Cambodia Development Resource Institute, Working Paper 14, May 2000.
- Kolstad I., Wiig, A., and Williams, A., 2008. *Tackling corruption in oil rich countries: the role of transparency*. U4 Brief February 2008 No.3. U4 Anti-corruption Resource Centre and Chr. Michelsen Institute.
- Kolstad, I. and Wiig, A., 2007. *Transparency in oil rich economies*. U4 Issue 2:2007. U4 Anti-corruption Resource Centre.
- Mehta Lyla 2000 *Balancing Pains and Gains. A Perspective Paper on Gender and Large Dams* Prepared for the World Commission on Dams
- Morris, Elizabeth (2007). *Promoting employment in Cambodia: analysis and options*. ILO Subregional Office for East Asia. – Bangkok: ILO, 2007
- NGO Forum of Cambodia, 2012 *Impacts of Climate Change on Rice Production in Cambodia*
- Orr, S., Pittock, J., Chapagain, A., & Dumaresq, D. 2012. *Dams on the Mekong River: Lost fish protein and the implications for land and water resources*.
- Poverty Environment Partnership (PEP), 2005. *Environment for the MDGs, Sustaining the Environment to Fight Poverty and Achieve the MDGs, The Economic Case and Priority for Action*. UNDP, September 2005.
- RGC, 2013, *National Policy on Green Growth*
- RGC 2013b, Ministry of Planning. *Guidelines for formulating National Strategic Development Plan (NSDP) 2014-18*

RGC, 2012, *The Cambodian Government's Achievements and Future Direction in Sustainable Development- National Report for Rio + 20*

RGC, 2011, *Achieving Cambodia's Millennium Development Goals, Update 2010*

RGC 2006, *National Adaptation Programme of Action to Climate Change (NAPA)*

RGC 2006, *Strategic Framework for Development Cooperation Management*

Royal University of Phnom Penh (RUPP) 2011 *Impacts of Economic Land Concessions on the Livelihoods of Indigenous Communities in Northeast Provinces of Cambodia*

UNDP Cambodia 2012, *Newsletter Vol. 09, No. 36*

United Nations Disaster Management Team, UNDMT, 2011 *Cambodia Disaster Preparedness & Response Plan*

World Bank (2012). *The little green data book 2012.*

World Bank (2009). *Poverty profile and trends in Cambodia, 2007 Findings from the Cambodia Socio-Economic Survey (CSES).* Report No. 48618-KH, June 2009

World Bank, 2006. *Halving poverty by 2015? Poverty Assessment 2006. World Bank East Asia and the Pacific Region*

WWF, 2013, *Ecosystems in the Greater Mekong - Past trends, current status, possible futures*

Ölund Wingqvist, Gunilla, Drakenberg Olof, Slunge Daniel, Sjöstedt Martin, and Ekblom Anders (2012). *The role of governance for improved environmental outcomes. Perspectives for developing countries and countries in transition.* Swedish Environmental Protection Agency, Report 6514, September 2012.

Internet sources

ADB and Sida *Viet Nam is an Electrification Success Story*
<http://www.swedenabroad.com/SelectImageX/289141/LeafletSIDAADBVIE1Mar2012.pdf>
 accessed 2013-06-10

CIA World Factbook, website accessed 11 June 2013:
<https://www.cia.gov/library/publications/the-world-factbook/geos/cb.html>

Community-Based Ecotourism Committee of Chambok, accessed 2013-06-12:
<http://chambok.org>

Conservation International, *Cambodia – The State of Trade*, accessed 2013-06-12:
<http://www.conservation.org/where/asia-pacific/cambodia/Pages/issues.aspx>

Council for the Development of Cambodia, accessed 2013-06-12:
<http://www.cambodiainvestment.gov.kh>

The Economist May 18th 2013, *Logging in South-East Asia; Rubber barons, The destruction of forests continues*, by IO Preas, Cambodia. Website accessed 11 June 2013.
<http://www.economist.com/news/asia/21578103-destruction-forests-continues-rubber-barons>

FAO Aquastat, website accessed 11 June 2013:
<http://www.fao.org/nr/water/aquastat/data/query/index.html?lang=en>

Human Rights Watch 2013 *Cambodia: Escalating Violence, Misuse of Courts*
<http://www.hrw.org/news/2013/02/01/cambodia-escalating-violence-misuse-courts> accessed 2013-06-12

International Budget Partnership, website accessed 11 June 2013:
<http://internationalbudget.org/wp-content/uploads/OBI2012-Report-English.pdf>

International Commission on Climate Change and Development 2009, *Closing the Gaps*
<http://www.ccdcommission.org/> accessed 2013-06-12

MLUP Baitong, accessed 2013-05-28: <http://www.mlup-baitong.org/>

OECD The Social Institutions and Gender Index, website accessed 11 June 2013:
<http://genderindex.org/country/cambodia>

PACT Cambodia *Community Forestry REDD Project Oddar Meanchey Cambodia*
<http://www.pactcambodia.org/Publications/CFP/Carbonbrochure.pdf> accessed 2013-05-30

Publish What You Pay, accessed on 14 June 2013:
<http://www.publishwhatyoupay.org/where/coalitions/cambodia>

Reporters without Borders, website accessed 11 June 2013:
http://en.rsfs.org/spip.php?page=classement&id_rubrique=1054

Transparency International, website accessed 11 June 2013: <http://cpi.transparency.org/cpi2012/results/>

Revenue Watch Institute, accessed 14 June 2013:
<http://www.revenuwatch.org/news/blog/cambodia-civil-society-makes-push-eiti-adoption>

RGC, MoE Climate Change Department <http://www.camclimate.org.kh> accessed 2013-05-22

Swedish Ministry of Foreign Affairs, 2012, Strategi för Sveriges utvecklingssamarbete med Kambodja 2012-2013 <http://www.regeringen.se/sb/d/108/a/109038> accessed 2013-05-18

UNDP Human Development Index (HDI), website accessed 11 June 2013:
<http://hdrstats.undp.org/en/countries/profiles/KHM.html>

UNDP 2012 *Climate Change Country Profiles Cambodia*, website accessed 17 May 2013:
http://www.geog.ox.ac.uk/research/climate/projects/undpcp/UNDP_reports/Cambodia/Cambodia_lowres.report.pdf

UNEP 2010 *Blue Harvest - Inland Fisheries as an Ecosystem Service*.
http://www.unwater.org/downloads/Blue_Harvest.pdf accessed 2013-05-23

United Nations Secretary-General High Level Group, Sustainable Energy For All
<http://www.sustainableenergyforall.org/> accessed 2013-06-12

Water Environment Partnership in Asia (WEPA), *Detailed survey of surface water in the Tonle Sap Great Lake catchment*
http://www.wepadb.net/policies/state/cambodia/river2_2_5.htm accessed 2013-06-13

Yale and Colombia Universities, Environmental Performance Index (EPI), website accessed 11 June 2013: <http://epi.yale.edu/epi2012/rankings>

Annex 1: NRM and poverty alleviation – voices from “the ground”

Kampong Speu province is located about 100 kilometres to the west of Phnom Penh. The topography is variable, from a large area of lowland paddy fields in the east to lowland/upland mosaics and upland forested areas in the West. The province hosts Kirirom which was Cambodia’s first officially designated national park and still a home to spectacular wildlife like tiger, Asian elephant and gaur. The author of this study visited two projects in the province with a guide from the NGO Mlup Baitong⁷⁹ to get first-hand information on how where the “triple dividends” of poverty alleviation, biodiversity conservation, and adaptation can be pursued in a successful manner based on active involvement of local communities.

Community Forestry in Krang Serei

The visit to Krang Serei village in Kompong Speu province provided confirmation of the multiple benefits provided by the Community Forestry initiative. The management committee made a vivid presentation of the positive impact of the 2006 declaration of a 93 ha forest area as a community managed forest. It has not yet provided large sums of cash income from logging but the Non Timber Forest Products and ecosystem services obtained – particularly construction material, land for grazing, basic medicines, reduced evaporation and run-off providing basic water access etc. – provide important “in kind” income for the village that has a positive impact on their livelihoods. The villagers also appreciate the return of wildlife, various types of deers are observed frequently and a large number of birds have reappeared. Logging is not an option yet as the degraded land they were licensed has yet to return its former dense forest cover, but they hope the next generation at the village in about 20 years’ time will make money from sustainable logging and commercialization of timber from the forest.

The village was assisted by the Mlup Baitong during the lengthy negotiations with RGC about the demarcation of the area, transition of stewardship, enforcement and monitoring of the agreement etc. All in all Mlup Baitong raised close to 10 000 USD⁸⁰ in order to finance the entire process.

Ecotourism benefits in Chambak

On the eastern borders of the Kirirom National Park Mlup Baitong has helped the local communities negotiate a deal with the MoE which transfers responsibility for management and tourism facilities for a part of the protected area to Chambok Commune which consists of 9 villages with approximately 2,500 people and is located on the outskirts of the park. Mlup Baitong has assisted the community in setting up a management structure and in developing a number of facilities and services for visiting tourists. Capacity building has been conducted for Community-Based Ecotourism (CBET) Committee members to enable them to manage the Chambok ecotourism site. The community runs a wide range of tourism services such as homestays, restaurants, handicraft markets, guided tours etc marketed in various ways, including a website⁸¹, with the help of Mlup Baitong. The income from ecotourism has significantly raised the prosperity⁸² of the commune as well as provided added understanding of the need for conserving the forest and its wildlife both for its intrinsic values and as a source for sustained prosperity for the commune.

⁷⁹ <http://www.mlup-baitong.org/>

⁸⁰ Preah Thearath, Mlup Baitong pers. comm

⁸¹ <http://chambok.org/>

⁸² Unfortunately no statistics were presented to the author, verification of the statements have only been confirmed by interviews with the CBET and by walking in the village observing the high standard of housing, number of scooters about and not least the appearance of children in well-cut school uniforms. During the author’s 14 years of regular visits to the Cambodian countryside the impressions from Chambok stand out as a shining example on what can be achieved by community involvement in conservation efforts

Annex 2: Cambodia MDGs

The RGC, in 2003, adapted an own set – the CMDGs - of the Millennium Development Goals to better suit the realities of the country.

Post the more than two decades of devastating civil war, one major constraint on development is the continued contamination of lands by mines and explosive remnants of war (ERW). Recognizing this situation the RGC added de-mining, ERW and victim assistance as the ninth major development goal.

The nine CMDGs are supported by a great number of diverse targets of which # 7 alone contains 13. The targets and indicators are uniquely defined to match the national context.

The advancement of the CMDGs up to 2011 is reported in *Achieving Cambodia's Millennium Development goals Update 2011*⁸³ published by the Ministry of Planning. It presents the most recent data on CMDG achievement in the country and the challenges that lie before RGC in the next four years. It draws heavily on the Midterm Review of the NSDP Update 2009-2013 produced in October-November 2011, through an extensive participation process with different ministries and agencies

According to the report – from which most of the information below is collected - targets that require special attention, either because they lag behind, or are not making progress, or are vulnerable to relapse, are poverty, child labour, child malnutrition, school repeat/dropout rates at all levels, enrolment beyond primary levels (though outside the purview of CMDGs), gender gaps in education beyond primary level, control of tuberculosis and HIV/AIDS, reforestation, and demining.

A brief review of the progress of the CMDGs up to and including 2011

CMDG1 *Eradicate extreme poverty and hunger* : Targets relating to income poverty or food poverty appear to have been already met, or will most likely be met. However, child nutrition levels are considerably behind their set targets, and the progress on them is also slow. Similarly, child workers are yet many more than what the set target requires.

CMDG2 *Achieve universal primary education* : The primary education targets are most likely to be met. The major challenge lies beyond primary education. Though this is beyond the CMDG purview, human capital needs of the society cannot be met through primary level education alone.

CMDG3 *Promote gender equity and empower women* : While a lot has been achieved, there are gaps in education, health and employment requiring bridging. Of particular concern are women's health and their representation in public offices.

CMDG4 *Reduce child mortality* : The infant mortality rate and child mortality rate targets have generally been met, though malnutrition and the problems ensuing from it stay a major challenge

CMDG 5 *Improve maternal health* : The maternal mortality rate targets have generally been met. However, women in positions of authority are still fewer than the set targets.

CMDG6 *Combat HIV/AIDS, malaria and other diseases*: While the targets of identified communicable diseases, along with HIV/AIDS, are most likely to be met, they will require continued vigilance and intervention.

⁸³ RGC 2011

CMDG7 Ensure environmental sustainability : This issue needs address on several fronts, like reforestation, preserving fresh water resources, improving livelihoods of people dependent on natural resources, and governance of forests. Of specific concern is also the non-availability of potable water and hygienic sanitation for the rural people.

CMDG8 Forge a global partnership for development: Until so far, the government has been successful in maintaining healthy partnerships. However, this momentum will have to be kept up, given that further concessional in-flows will be more as loans and less as grants.

CMDG9 Demining, ERW, and victim assistance: Area cleared so far has been large, but people are still dying due to mine explosions. Resource shortage is an impediment.

According to the report there are some targets that are set at unrealistically low levels. This is to the extent that they might adversely influence other goals and targets. Two targets, for example, that need upward revision are rural water supply and rural sanitation, as at the present levels of 50 per cent and 33 per cent, respectively, they are abysmally low to the extent that they will hardly help reduce morbidity in the society. A careful examination of other targets as well, might be essential.

A closer look at CMDG7

A study commissioned by donors in 2010 on the status of CMDG7 shows status across all indicators, as reported by Government agencies based on statistics from 2008 to 2010⁸⁴.

Indicators	Benchmarks		Most Recent Available			Targets		Progress	Distance to target
	Value	Year	Value	Year	Source	2010	2015		
7.1 Forest cover (% total area)	60	2002	57.59	2009	FA	60	60	-2.41	-2%
7.2 Surface of 23 protected areas (million ha)	3.3	1993	2.9	2009	MoE	3.3	3.3	-0.4	-12%
7.3 Surface of six new protection forests (million ha)	1.35	1996	1.53	2009	FA	1.35	1.35	0.18	13%
7.4 Number of rangers in protected areas	600	2001	480	2010	MoE	960	1200	-120	-60%
7.5 Number of rangers in protection forests	500	2001	315	2010	FA	500	500	-185	-37%
7.6 Proportion of fishing lots released to local communities	56.46	2000	56.74	2010	FIA	60	60	0.28	-5%
7.7 Number of community-based fisheries	264	2002	469	2010	FIA	464	470	205	-1%
7.8 Surface of fish sanctuaries (thousand ha)	23.5	2000	38.03	2009	FIA	46.6	60	14.53	-37%
7.9 Proportion of households dependent on fuel-wood	92	1993	91.1	2008	GPCC	61	52	0.9	-39%
7.10 Proportion of rural population with access to safe water source (Dry Season)	24	1998	43.1	2010	GPCC	40	50	19.1	-7%
7.11 Proportion of urban population with access to safe water source (Dry Season)	60	1998	81.6	2010	GPCC	74	80	21.6	2%
7.12 Proportion of rural population with access to improved sanitation	8.6	1998	23	2008	GPCC	20	30	14.4	-7%
7.13 Proportion of urban population with access to improved sanitation	49	1998	75.75	2010	GPCC	67	74	26.75	2%

⁸⁴ Adapted from EU 2012

Annex 3: NGOs playing an important role in NRM in Cambodia

Forestry

RECOFTC: The Centre for People and Forests. Regional organisation with HQ in Thailand. Works on a pro-poor approach to building capacity for community forestry in Asia and the Pacific. Recently established in Cambodia and working to set up new community forestry sites and help communities and the RGC through the legalization process. They are also increasingly focusing on translating community forestry rights into participatory forest management and real economic benefits for local people.

Source: www.recoftc.org/site/Cambodia/

Mlup Baitong. Cambodian NGO with strong focus on empowerment of rural communities' ability to understand and exert their land rights and actively participate in planning and implementation of community forestry projects. Solid experience on advising and organizing income-generating activities for forest communities. Skilled in environmental education.

Source: <http://www.mlup-baitong.org/profile.php>

PACT: US-based international NGO. Runs a sub-programme on forestry called Pact Cambodia's Forestry Partnerships in Communities and Climate (FPCC) consisting of three core projects:

- Community Forestry Establishment and Legal Tenure, assisting communities to submit their claim for stewardship of the forests near their villages. The program also supports mapping initiatives that delineate the area of community control, enabling more effective forest protection and reducing contentious encounters with competing interests.
- Forest Livelihoods Program provides a range of services to aid in non-timber forest product (NTFP) enterprise development to communities across four regions.
- Sustainable Financing through REDD Forest Carbon, Cambodia's first Reducing Emissions from Degradation and Deforestation (REDD) project. The Community Forestry REDD project facilitates the marketing of the (voluntary) carbon credits generated by safeguarding 13 community forests in Oddar Meanchey

Water resources and Fisheries

CEPA: Cultural and Environment Preservation Association of Cambodia. Works primarily on advocacy and awareness raising on the impacts of new dams on the Mekong and its tributaries in Cambodia. Also helping communities organize and legalize community fishery plots in Tonle Sap and Stung Treng area

Source: <http://www.cepa-cambodia.org/index.html>

3 S PN - 3S Rivers Protection Network:

The network was founded to assist dam-affected communities living alongside the Sesan River after serious impacts occurred along the river caused by the hydropower dam construction upstream in Vietnam. 3SPN has since expanded its activities due to requests from villagers to cover and assist all villages situated along the Sesan and Srepok Rivers and works with partner organisations to assist communities living along the Sekong River.

Source : <http://www.3spn.org/about-us/background/>

FACT: - Fisheries Action Coalition Team. FACT is a coalition of NGOs established in 2000 by a group of NGO members working on fisheries and environmental issues around the Tonle Sap Lake. They work towards building a strong coalition of NGOs and local grassroots' organizations to protect fisheries, water resources and other natural resources in Tonle Sap

Lake, Mekong River, and Cambodian marine regions.

Source: <http://www.fact.org.kh/>

Biodiversity in general

Conservation International (CI).

US-based international NGO with an office in Cambodia. Supports indigenous communities and RGC agencies responsible for managing the Central Cardamoms Protected Forest (CCPF) which is one of the largest protected areas in Asia. CI has worked to support participatory land-use planning that reconciles conservation and development, and that promotes community agreements that link livelihood improvements to wildlife protection, ranger training and biological research and monitoring.

Source:

http://www.conservation.org/where/asiapacific/cambodia/Pages/cardamom_mountains.aspx

World Conservation Society (WCS).

Another US-based international NGO with an office in Cambodia. Runs projects on measuring deforestation in the Northern Plains, promoting REDD in Seima Protection Forest and securing indigenous land tenure in Mondulkiri

Source: <http://programs.wcs.org/cambodia/SavingWildPlaces.aspx>

WWF

Its Cambodia office manages programs on forest conservation, wetlands, protection of threatened species like the Mekong Dolphin and Tiger as well as initiatives to promote monetisation of Non Timber Forest Products like rattan.

Source: http://cambodia.panda.org/wwf_in_cambodia/mission/

IUCN.

Works on mangroves, Mekong water dialogues and building coastal resilience from its Cambodia office.

Source:

http://www.iucn.org/about/union/secretariat/offices/asia/asia_where_work/cambodia/projects_and_where_we_work/

FFI, Flora and Fauna International .

In Cambodia the organization assists the national authorities in building up their institutional capacity and in developing environmental policies and legislation. According to their website they place equal importance on the inclusion of civil society and the corporate sector in sustainable natural resource management.

Source: <http://www.fauna-flora.org/explore/cambodia/>

Land rights

The NGO Forum on Cambodia

The Forum is a membership organisation for local and international NGOs working on a number of development issues at multiple levels. Their 'Land and Livelihoods' and 'Environment' programmes deal with specific land and environmental issues, offering broad based support to their network of NGOs, especially in terms of engagement with the RGC.

Source: <http://www.ngoforum.org.kh/eng/>

Climate change

NCCN

NCCN, the National Climate Change Network in Cambodia was founded by Oxfam America in 2009 NCCN aims to minimize the impacts of climate change through advocacy, capacity building, piloting projects and improving networking, coordination and communication among stakeholders.

JCCI

JCCI, the Joint Climate Change Initiative is a joint initiative between Danish Church Aid/Christian Aid, Cord and Forum Syd that puts partner organizations through a series of eight workshops, including two field-based, and a comprehensive learning process on climate change, also including methods for stakeholder cooperation, potential responses to climate change and an organizational self-assessment. The end product of the learning process is for JCCI partners to develop a climate change project and integrating this into their existing programmes and projects. (The initiative is funded by Sida)

Source: https://www.forumsyd.org/templates/FS_ArticleTypeA.aspx?id=29178

Overall, as the links between sustaining biodiversity of Cambodia and climate change adaptation are so strong in Cambodia it is fair to say that most of the work done by NGOs in the natural resources management sector also contributes to increasing the resilience of Cambodia's communities and ecosystems to climate change.

Annex 4: Institutions and stakeholders visited during fact-finding mission

Thailand

Embassy of Sweden, Bangkok

International Rivers, Bangkok

Towards Ecological Recovery and Regional Cooperation (TERRA), Bangkok

Cambodia (at Phnom Penh unless stated)

ADB, Cambodia Resident Mission

Community-Based Ecotourism Committee, Chambok

Delegation of the European Union to Cambodia

Embassy of Sweden

Management Committee of Community Forestry Project, Krang Serei

Ministry of Environment

Ministry of Industry, Mining and Energy

Ministry of Agriculture, Forestry and Fisheries

Mlup Baitong

NGO Forum of Cambodia

PACT Cambodia

UNDP Country office

Annex 5: A summary of donor programs in the environment sector in Cambodia 2012-⁸⁵

Partner	Project / Program
EU	<ul style="list-style-type: none"> • SWITCH-Asia: Promoting Sustainable Consumption and Production (2012-) • Promoting appropriate technology for smallholders to increase food security among indigenous peoples in Cambodia and Lao PDR (2012-15) • Sustainable Development through Land Use Planning & Support to Vulnerable Communities • Powering Harbour Development in South-East Asia/ Flanders International Technical Agency • Waste to Energy for the Rice Milling Sector in Cambodia / SNV • Promoting Community Forestry in Cambodia / OXFAM-GB • SFM & Rural Livelihood Enhancement through CF & REDD / RECOFTC; OXFAM • Sustainable PES in the Cardamom Mountains Landscape / FFI; Learning Institute; RUPP • Poverty Alleviation through Improved Conservation in Virachey National Park / Deutsche Welthungerhilfe; Save Cambodia's Wildlife • Promoting Climate Resilient Livelihoods for Small-Scale Farmers in Most Vulnerable Dry Land Areas / Plan International (UK); CEDAC • Sustainable Forest Management and Rural Livelihood Enhancement through Community Forestry and REDD initiatives in Cambodia (2010 – 2015) - RECOFTC & Oxfam • Sustainable livelihoods of Indigenous People in Rattanakiri and Mondulakiri Through Effective Land Management (2012-14) • Secure Water to Secure Food and Nutrition (2012-15)
ADB	<ul style="list-style-type: none"> • Capacity Building for Efficient Use of Biomass for Bioenergy & Food Security (2012-) • Rural Renewable Energy Initiative in the GMS • Tonle Sap Lowlands Rural Development Project (2011-2016) • Core Environment Program : GMS Biodiversity Conservation Corridors Project (2011-)⁹³ • Sustainable Urban Development in Tonle Sap Basin (2011-) • Tonle Sap Lowlands Rural Development Project (2011-2016) • Tonle Sap Watershed Management Project • Promoting Low Carbon/Climate Resilient Economies in the GMS (2012-) • Rural Water Supply and Sanitation II and III (2010-) • Water Resources Management Sector Development Program (2011-2015) • Climate Resilient Rice Commercialization Sector Development Program (2012-) • SME Development II: SPS Sub-Projects (2010-) • Integrated Women's Empowerment Centres (Grant #9081) • Support for Preparation of Harmonized Sector Assessments, Strategies & Roadmaps
World	<ul style="list-style-type: none"> • Rural Energy Strategy Program & Sustainable Charcoal Pilot Project / GERES; MIME; FA <p>https://docs.google.com/viewer?url=http://www.un.org.kh/undp/media/files/CMDG%2520Report%25202010.pdf</p>

⁸⁵ EU 2012

Annex 6: Terms of reference

ToR for Cambodia Environmental and Climate Change Policy Brief

The Swedish Government has identified environment and climate change as one of three thematic priorities for development cooperation. This is reinforced in the Swedish policy on environment and climate change in development cooperation, which concludes that these aspects are a central point of departure for all development cooperation. An Environmental and Climate Change Policy Brief is a tool to address these issues.

This Environmental and Climate Change Policy Brief will provide analytic input related to the Swedish results strategy process and in preparation of a new result strategy proposal for Cambodia.

The Policy Brief takes as a point of departure the Millennium Development Goal 7: Ensure Environmental Sustainability, and aims to summarise the key environmental challenges, constraints and opportunities and their links to development and poverty reduction in Cambodia. The Sida Helpdesk for Environment and Climate change will be given a [state working time, maximum of 3 weeks] to produce an Environment and Climate Change Policy Brief.

A draft version should be sent to Sida/the Embassy (att: Soma Dor) on the 30 May 2013 at the latest. After comments from Sida a final version should be complemented within a week.

Below follows an outline suggestion for an Environment and Climate change policy brief.

1. Introduction

Short introduction, the aim, possible use, etc., the given entry points and Areas of Cooperation for Swedish Development Cooperation in Cambodia.

2. Key environmental problems, their causes and opportunities

- Summary of key environmental (including ecosystem services, natural resources, disaster risk reduction and climate change) challenges and trends, causes and key drivers.
- Internal and external factors.

3. What are the effects of the environmental natural resources and climate change problems?

Key impacts of the environmental challenges and linkages to poverty reduction including economic and social factors.

Environment

- Impacts/manifestations on poverty (lack of assets/power/choice; vulnerability, security, opportunity; gender aspects)
- Impacts on economic development (special focus on the climate change impacts on agriculture and how this both affects poverty reduction and economic development)
- Impacts on Public Health and Education (focus on the impact of the floods on school infrastructure and possibility to continue classes.)
- Specific focus on land rights
- Impact environment on social and economic development of land concession

Climate Change impacts

- Current Climate and hazards
- Climatic trends and projections
- Impacts of CC with a focus on vulnerable groups (the focus is on environmental impacts, but will also include social impacts, and economic impacts where available).
- Links between climate change and disasters risk management and livelihood (agriculture and food security, water, human health and gender)

4. Policy sector and strategies framework for managing environmental challenges and climate change

Environment

- International obligations
- National priorities, policies and sectors (e.g. economic policies/PFM-systems, sector strategies) that affect the environment, climate change and natural resource utilisation
- Mainstreaming of environment and climate change in the policy framework
- Governance, enforcement and implementation
- Capacity constraints
- Other actors (donors, private sector, civil society, NGO's, Swedish support through multinationals etc.),
- National policy on EIA ?

Climate Change

- National Climate Change Adaptation Policies and Plans
- National Climate Change Mitigation Policies and Plans
- Which sectors are the most vulnerable to changes in climate?
- What is the likely impact on SIDA's priority sectors?
- What are the sectors and actions prioritized in the NAPAs and CCCSP?
- How do the NAPA and CCCSP priorities fit with SIDA priority areas?
- What are the sectors and actions prioritized for mitigation that fit with Sida current support CC?
- Examples of the types of adaptation project currently being support by Sida
- Links and possible synergies between climate change adaptation and disaster risk reduction.
- How to integrate the disaster risk management with sustainable livelihoods?
- What are the constraints on effective adaptation in Cambodia?

Institutional frame work /program plans

- Briefing the capacity of country/MoE in the field of Environment and CC and challenges.
- Alternative relevant ministries working on environment and CC

5. Risks and opportunities

- Risks
- Alternative of effectiveness of channels and Implementing Partners
- Opportunities: 1) in terms of the national green growth agenda and possibilities to support the Green Growth Master Plan, 2) Links between environment/climate change and employment, e.g. how to support green jobs/ecosystem services, 3) Linking Human rights

and natural resources with a focus on secure land tenure, grappling with land grabbing, etc., 4) continued mainstreaming of climate change in the reform on Democratisation and De-concentration.

6. Other issues

- Addressing MDG 7 in a more operative manner (e.g. what are the entry points for integrating MDG 7 in the country context with cooperation areas in education (e.g policy level or local level for awareness raising and livelihoods improvement), decentralization reform(capacity development and mainstreaming) and democracy/human rights (land rights and food security).)
- Addressing resilience and climate change, lessons learnt from previous support and possible way forward.
- Relevant indicators that are monitored annually at the national/sub-national level.

7. Conclusion

- Environmental aspects of the Result Areas and possible linkages to the other two thematic priorities
- Results which could be achieved through targeted support within the Swedish proposed Areas of cooperation
- Issues for Sida to consider
- Summarise the most important issues and opportunities for consideration in CC links to an environmentally sustainable development and the fulfillment of the Millennium Development Goals in the country.