ISSN 1560-7607

CAMBODIA DEVELOPMENT REVIEW

A Publication of the Cambodia Development Resource Institute

VOLUME 6, ISSUE 1 JANUARY – MARCH 2002 $4.00

Questioning Sustainable Concession Forestry in Cambodia

Bruce McKenney examines donor support for sustainable forest management in concessions, analyses concessionaires' financial disincentives to adopt these reforms, and assesses the efficacy of Cambodia's forest concession system as a means for achieving development goals.*

Between 1994 and 1997, the Royal Government of Cambodia granted more than 30 commercial forest concessions encompassing an area of about 6.5 million hectares – equal to more than one-third of the country and more than half of Cambodia's forests. By introducing a forest concession system, the government sought to delegate responsibility for forest management to private sector companies and raise much needed revenue for national development. Although government cancellations of concessions have since reduced the number of concessions to 20 (covering an area of 4.2 million hectares), the concession system remains the dominant means for managing forests in Cambodia (Chan *et al* 2001).

Under sustainable forest management, concessionaires would be required to limit harvests to about 1-3 trees per hectare. This picture shows a Department of Forestry and Wildlife inspection of a concession, in 2001.

As problems of unsustainable harvesting and illegal logging have emerged in forest concession areas, the main policy response of government and donors has been to call for sustainable forest concession management. While definitions abound, sustainable forest management (hereafter referred to as SFM) generally entails ensuring that forest resources provide a sustained timber yield into perpetuity while maintaining natural forest quality, conserving biodiversity, ecosystem functions, and other forest services such as soil and watershed values, maintaining rights of forest access and use for local communities, and preserving cultural values.

With the aim of achieving SFM in the concession system, government and donors have invested a great deal of resources over the past several years. Major projects have included the World Bank-funded Forest Policy Reform Project (1997-1998), the Asian Development Bank-funded Sustainable Forest Management Project (1999-2000), and the ongoing World Bank-funded Forest Concession Management and Control Pilot Project (2001-2003). Implicit in these efforts to reform the forest concession system have been two assumptions:

1. SFM is an economically viable management regime for concessionaires to adopt and implement in Cambodia.
2. The concession system is the most effective management tool for optimising development benefits from Cambodia's forest resources.

To evaluate these assumptions, this paper examines donor support for sustainable forest concession management, analyses key economic and financial disincentives for concessionaires to adopt SFM, and assesses the effi-

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cacy of the forest concession system as a tool for meeting development objectives. It is hoped that the issues raised here can support realistic discussions about the potential for concessionaires to adopt SFM and, given those expectations and the historical record of the forest concession system, whether changes in forest management strategies are warranted.

Donor Support for SFM in Concessions

A model for how Cambodia's forest resources might contribute to wider development objectives was first put forth in 1996 by a joint mission of the World Bank, United Nations Development Programme (UNDP), and Food and Agriculture Organisation (FAO). The mission endorsed the use of a forest concession system as the appropriate tool for development of Cambodia's forest resources, noting that "many forest-rich countries use concession systems and they can make important contributions toward various sectoral development objectives putting concessions among the most useful instruments of forest policy" (World Bank *et al* 1996). This endorsement of the concession system also included calls for reform aimed at ensuring a sustained yield of timber from concessions and increasing government forest revenue. The mission suggested that "the market-oriented policy reforms advocated in [the mission's] report together with improved control of forest areas could increase government forest revenue in the order of over $100 million per year, while better sustaining these resources and their vital environmental and social functions."

Although the reluctance of concessionaires to adopt SFM reforms is often attributed to a lack of knowledge about SFM practices and a need for government and concessionaire capacity building, reluctance toward reform more likely reflects the incompatibility between SFM and concession profitability.

To support these reforms, the World Bank funded a range of technical assistance studies on the forestry sector in 1997-98 under the Forest Policy Reform Project. Findings from the project suggested enormous problems with uncontrolled and illegal logging in and around concessions and minimal revenue collection by the government. For instance, roughly 94 percent of timber production was found to be illegal in 1997, and government revenue from forest concessions only amounted to $6 million in 1997 and $10 million in 1998 (DAI 1998). Despite these problems, the project concluded that "the Forest Concession system is the most appropriate for commercial development of forest resources in Cambodia but needs refinement to suit Cambodian conditions" (Associates for Rural Development 1998). The findings were later synthesised by the World Bank into a strategic vision for the forestry sector that reaffirmed support for sustainable forest concession management in Cambodia, but revised estimates of potential government forest revenue from over $100 million to about $40-$80 million (World Bank 1999).

From 1999 to 2000, the ADB-funded Sustainable Forest Management Project (SFMP) conducted a review of the forest concession system and concluded that the extremely poor performance of concessions indicated "a total system failure." The review found that no forest concession had been managed sustainably, with harvesting far outpacing the rates expected under a 25-year timber license. Of the concessions for which the SFMP was able to obtain sufficient information, 40 percent had fewer than five years of harvests remaining, 50 percent had 5-10 years of harvests remaining, and 10 percent had 10-15 years of harvests remaining (Fraser Thomas 2000). This finding was in line with conclusions from the Forest Policy Reform Project, which warned that Cambodia's forest resources could be economically depleted within five years if 1997 logging rates continued (DAI 1998).

Despite the SFMP's grim findings, it recommended continued support for a forest concession system in Cambodia, albeit a restructured and reformed one. Among other recommendations, the SFMP called on concessionaires to prepare sustainable management plans by November 2001 – the beginning of the 2001 logging season. Concessionaires, the Department of Forestry and Wildlife (DFW), and concerned donors agreed with this recommendation in May 2000, setting September 2001 as the deadline for concessionaires to submit management plans and November 2001 as the deadline for government approval decisions.

To support this process, the DFID-funded Joint Working Group on Forest Concession Management was established between the Cambodia Timber Industry Association (CTIA) and DFW. The Joint Working Group reconfirmed the September 2001 deadline for submission of concession management plans at meetings in October 2000 and May 2001, but the deadline recently passed without any concessionaires submitting management plans. CTIA suggests that most concessionaires' management plans are at least several months from completion and some concessionaires have not yet begun developing their plans.

Most recently, the World Bank continued its support to the forest concession system with the launch of the three-year Forest Concession Management and Control Pilot Project (2001-2003). The objective of this project is to improve the effectiveness of forest management, operational guidelines, and control procedures in forest concession areas, and to establish effective forest crime monitoring, enforcement, and prevention capabilities (World Bank 2000).

The Economics of SFM in Concessions

Although the reluctance of concessionaires to adopt SFM reforms is often attributed to a lack of knowledge about SFM practices and a need for government and concessionaire capacity building, reluctance toward reform

more likely reflects the incompatibility between SFM and concession profitability. Implementation of SFM will impose a variety of costs on concessionaires related to sustainable harvesting and environmental and social requirements. The most significant cost is likely to be associated with shifting from intensive logging to a sustained yield regime. The threat of sustained yield management to concession profitability was recognised as far back as 1996:

> *To prevent overcutting, ... Government should require that logging intensity be restricted to the established Cambodian standard. This implies harvests close to 10 m³/hectare as opposed to the 50 m³/hectare or more that has been proposed by some concessionaires. If limited to sustainable harvest levels, even with subsidised royalties, the current concessions are unlikely to be able to operate profitably as planned because of low conversion rates, poor marketing strategies and high capital costs (World Bank et al 1996).*

Regarding the shift from intensive logging to a sustained yield, the DFW's *Forest Concession Management Planning Manual* (2000) requires: (1) designation of 25 or 30 coupes[1] as part of an overall management plan for a 25-year or 30-year rotation, and (2) selective cutting of one coupe per year, with these harvests limited to no more than 30 percent of the marketable volume of the forest stand (i.e., commercial species above the specified minimum cutting diameter)[2]. Such selective cutting is intended to allow the remaining stand to support forest regeneration.

As of 1997, only 6 percent (625,177 hectares) of Cambodia's forests were in the commercially attractive category of dense evergreen, while 30 percent of the forest (3,183,395 hectares) was identified as disturbed evergreen, which indicates logging ranging from light to severe. Cambodia's remaining forest is primarily deciduous and not considered viable for commercial timber production.

Based on available information on forest growth rates and commercially viable forest stands, implementing SFM in Cambodia would require reducing harvest volumes to about 10 m³/hectare, or the equivalent of about 1-3 trees per hectare (World Bank *et al* 1996; DFW 2000). Although concession agreements commit concessionaires to sustained harvests, the agreements also propose harvesting intensities of 40-50 m³/hectare – a harvesting level that "essentially removes all commercial volume and is not likely to result in regeneration sufficient to support a second harvest at the end of a thirty year cutting cycle" (World Bank *et al* 1996).

Enforcing sustainable harvests of 10 m³/hectare will be extremely difficult because concession operations are not likely to be economically viable under such low rates of extraction. As argued by the DFW's *Forest Concession Management Planning Manual* (2000), "economic analysis will demonstrate that commercial logging operations cannot be sustained at this [10 m³/hectare] level of cut." Even if concessionaires could earn a reasonable profit under a sustained yield regime, they have tremendous financial incentives to continue high-intensity harvesting because this practice increases their returns and reduces risks. Key financial incentives for high-intensity harvesting are described below.

1. Rapid and intensive harvesting reduces concessionaires' risk exposure.

Harvesting timber from a concession over 25-30 years under a sustained yield regime, instead of harvesting in say 5 to 10 years under current practices, greatly increases a concessionaire's risk exposure. In Cambodia these risks include illegal logging by other entities, more restrictive forestry laws and regulations, contract termination, political uncertainty, natural disasters such as tree disease, fires, and floods, and so on. Due to these risks, concessionaires have strong incentives to harvest at intensities of 40-50 m³/hectare rather than harvest 10 m³/hectare in the hope that they will be able to conduct a second harvest of 10 m³/hectare 25-30 years later.

2. A far higher annual rate of return can be earned by harvesting intensively and investing profits elsewhere than by harvesting sustainably.

From a concessionaire's perspective, the benefits of changing from high-intensity harvesting to a sustained yield are that the unharvested commercial evergreen forest is allowed to grow in volume and value over time, allowing for a second harvest in 25-30 years. To evaluate the annual returns associated with changing to a sustained yield regime, consider a simplified scenario in which a concessionaire has two options: (a) harvest a tree today; or (b) harvest the same tree in 30 years. Under "Option A", profits from the immediately harvested tree can be invested elsewhere to earn an annual return. In comparison, the annual rate of return on waiting to cut under "Option B" is equal to the tree's annual wood volume growth plus any real (inflation adjusted) wood market price increase.

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Looking first at "Option B", forest growth in Cambodia has been estimated to be about 0.33 m³/hectare/year, substantially lower than common growth rates in Indonesia (1.0 m³/hectare/year) and Malaysia (1.0-1.5 m³/hectare/year) (Koum 1992; World Bank *et al* 1996).[3] Based on this growth rate and an estimated average marketable timber volume of roughly 33 m³/hectare[4], it follows that wood volume increases at an average rate of around one percent/hectare/year. However, this estimate

should be viewed as a rough approximation because forest growth rates vary under different management regimes and actual commercial timber volumes are not known because concessionaires have not yet developed new management plans.

Data on real price increases of tropical timber also do not suggest significant value gains from adopting a sustained yield regime. From 1995 to 2000, real annual price growth for tropical timber was between 0.2 and 2.7 percent. Over the past four decades, real price growth has averaged only 1.2 percent (Rice *et al* 2001). Thus, the combination of slow wood volume growth and low real price appreciation suggests an annual rate of return under "Option B" of perhaps 2-3 percent. Given the high risks of operating a forest concession in Cambodia, harvesting in accordance with sustained yields for the promise of a 2-3 percent annual return will not be viewed by concessionaires as a wise decision.

"Option A" is financially much more attractive than "Option B" because profits from an immediately harvested tree can be invested for superior returns. For example, investments in Cambodia are expected to earn annual returns of at least 15-20 percent (as indicated by Cambodia's lending rate).[5] Rather than adopt a sustained yield regime for the promise of low annual returns at high risk, concessionaires have strong financial incentives to continue to harvest as much as possible, as rapidly as possible.

3. Concessionaires' existing investments in log processing capacity may be underutilised if SFM reduces logging harvests.

The *Cambodian Forest Concession Review* (2000) estimated existing log processing capacity in Cambodia at roughly 1.2 to 2.0 million m^3 per year. This processing capacity is well above the estimated sustainable timber harvest of 0.5 to 1.0 million m^3 per year. Returns on fixed investments in log processing capacity increase with higher capacity utilisation (i.e., increased throughput of log volume). Where the implementation of SFM reduces log harvests and results in lower utilisation of concessionaires' processing capacity, earnings on their fixed investments will be reduced.

Facing Concession System Realities

In light of the enormous financial disincentives to SFM, concessionaires' failure to produce sustainable management plans and reform their practices should not be a surprise. Future forest management in Cambodia may include SFM *or* the current concession system, but the long sought-after combination of the two is unlikely to ever be achieved as they appear fundamentally incompatible. It is important, therefore, to take a closer look at how effective the current (unsustainable) concession system has been in meeting development objectives to determine whether the system's performance merits its retention in the future.

Table 1: Government Forest Revenue and Average Net Revenue of Concessionaires (1996-2001)

Year	Government Forest Revenue (million US$)	Average Net Revenue of Concessionaires before Payment of Royalties and Export Taxes(US$ per m^3 of log volume)
1996	10	Not Available
1997	12	- 17.34
1998	6	- 49.53
1999	10	7.73
2000	11	Not Available
2001	7*	Not Available

* Through October 2001. Sources: Ministry of Economy and Finance; and KPMG (2001),

One of the main goals of establishing a concession system in Cambodia was to generate government revenue that could then be used for wider development purposes. As noted above, in 1996 the World Bank, UNDP, and FAO estimated that government forest revenue could eclipse $100 million annually. The World Bank later adjusted this estimate to $40-$80 million annually. Since the initial revenue projection in 1996, annual government forest revenue has ranged between $6-$12 million (Table 1). Privately, several donors now concede that the forestry sector is unlikely to ever generate significant government revenue. In addition, it is worth noting that if a SFM regime were implemented, harvests would be lower than in past years, suggesting even less royalty and export tax revenue for the government.

In 1996 the World Bank, UNDP, and FAO estimated that government forest revenue could eclipse $100 million annually. The World Bank later adjusted this estimate to $40-$80 million annually. Since 1996, annual government forest revenue has ranged between $6-$12 million.

According to a draft study prepared by KPMG in 2001, the concession system has also not proven profitable for concessionaires (Table 1). With CTIA support, KPMG collected primary data from five representative concessionaires to evaluate their average profitability and corresponding ability to pay royalties and export taxes. These concessions accounted for about 40 percent of the total area under forest concessions in Cambodia. KPMG concluded that "over the past three years [1997-1999], the average Cambodian producer has not generated significant positive net revenues and has never met reasonable profit expectations." KPMG also suggested that the "extremely poor" performance of concessionaires has left little if any revenue for paying royalties and export taxes to the government: "Only in 1999 did the average company generate a small positive net revenue, but only when government taxes (royalties and export tax) are excluded…. This means that there was no residual value or rent available for payment of royalties or taxes in any year covered by the study."

In addition to apparent revenue generation and profitability failures, other serious problems associated with

the concession system have received significant attention though they will not be discussed in detail here. These include:

- Impacts to rural livelihoods due to reduced access and use of forest resources;
- Conflicts between concessionaires and local communities;
- Severe deforestation and degradation of forest areas resulting in biodiversity loss, increased flooding, soil erosion, and higher levels of sedimentation that threaten the health of fisheries.

Exploring Forest Management Alternatives

Cambodia is not the first country to struggle with the implementation of sustainable forest concession management. Around the world, countries with timber industries and regulatory systems more mature and robust than Cambodia have failed to introduce SFM despite more than 20 years of effort and hundreds of millions of dollars of investment and development assistance. Only 1.1 million hectares of natural tropical forests are managed under a SFM regime out of an estimated 1.7 billion hectares worldwide (Rice *et al* 2001).

Around the world, countries with timber industries and regulatory systems more mature and robust than Cambodia have failed to introduce SFM despite more than 20 years of effort and hundreds of millions of dollars of investment and development assistance.

The financial disincentives for concessionaires to embrace SFM suggest that reform efforts are unlikely to achieve the forest management, revenue generation, and sectoral development goals envisioned for the forestry sector in Cambodia. There is a strong need to explore forest management alternatives to the concession system if future generations are to enjoy the benefits of Cambodia's forest resources. Although a detailed assessment of forest management alternatives is beyond the scope of this paper, some suggestions on how forestry sector reform efforts might begin to be refocused are provided below.

1. Recognise that the forest concession development model, whereby forest revenue flows to the national government and then back out to rural areas for development purposes, has failed.

Government forest revenue generated from concession forestry is very limited, and the concession system has negatively affected rural livelihoods by reducing access and use of forest resources. Given that improving rural livelihoods is one of the government's main development objectives, forest management approaches should be explored that might directly enhance the benefits of forest resources for rural people. For example, where rural livelihoods depend on resin collection and trade, the government might support local forest management structures for protecting resin trees and surrounding forest areas, remove encumbrances to trade such as transport permits, and help to identify potential export markets.

2. Terminate concessions without a viable base of commercial timber or where concessionaires are known to have repeatedly violated the terms of their Forest Concession Agreement or the Sub-Decree on Forest Concession Management.

Terminations might begin with eight concessions identified by the *Cambodian Forest Concession Review* (2000) as unlikely to ever have viable management plans due to "the severely depleted state of forest reserves in their concessions." While much concern has been voiced about the potential legal repercussions of unilaterally terminating concession contracts, these concerns appear overstated. First, the government's cancellation of 12 concessions and unilateral increase in royalty rates from \$14 to \$54/m^3 in 1999 did not result in legal action from concessionaires. Second, the government appears to have a strong legal basis for terminating contracts. As noted in the *Cambodian Forest Concession Review* (2000):

> *No concessions are in compliance in terms of: their ability to demonstrate that they are meeting their investment commitments; payment of royalties; and reporting of annual accounts. ...The appalling quality of the current management plans, the severe lack of technical capacity of many concessionaires, a complete lack of resource assessment, monitoring and planning of silvicultural operations, extremely poor infrastructure in most of the concessions, indifference to communities and their development all constitute clear evidence that concessionaires have not complied with their contractual agreements. Moreover, there are very few records that the concessionaires have reported incidents of illegal logging to the authorities.*

Finally, the government has overriding responsibility for management of the nation's forests. Although concessionaires have been entrusted by the government as partners in forest management, where concessionaires have managed forests irresponsibly, this partnership should be reconsidered. As recommended by the *Cambodian Forest Concession Review* (2000), "no inadequacy in the agreements or proven violations should prevent the Government from taking measures to protect the nation's resources. The forest estate remains a vital resource and the Government retains the responsibility to bring about its effective management."

3. Designate forest areas for outright protection where biodiversity, watershed, conservation, and/or potential eco-tourism values are deemed important.

The government has already taken important steps toward establishing a "protected forest" in the central Cardamom Mountains, despite much of the area be-

ing under three different concessions. This government action implicitly acknowledges that concessionaires are incapable of implementing SFM to protect environmental values. Where environmental values in other concession areas are considered of critical value, similar steps should be taken to establish protected forest. Such protection measures are likely to be more effective than entrusting concessionaires with responsibility for protection under proposed SFM reforms.

4. Increase resources available for developing and pilot testing "community forest" management models.[6]

With the bulk of resources focused on developing and reforming the forest concession system, community forestry has often been marginalised in Cambodia. For example, the influential World Bank report *Cambodia: A Vision for Forestry Sector Development* (1999) called for a forestry sector where "reasonably well stocked" forests are available for commercial production and "small forest areas and scattered trees" are managed by local communities. "Community forestry needs to be recognised as a means for achieving sustainable management for the large bulk of forest resources that are not suited to commercial production and which will be beyond the direct management capacity of Government." The vision did not comment on whether communities residing within or adjacent to commercially valuable forests should have priority rights to benefit from those resources, or what the motivation would be for communities to manage low value, degraded forests. Moreover, none of the report's "action priorities" suggested making the development of community forest management a priority for donor support.

Rather than continuing to direct scarce forest management funds and capacity toward the establishment of SFM in concessions, government and donor resources would be better spent on exploring and developing forest management alternatives to concessions.

More recently, community forestry has received considerable attention as a potential alternative (or complement) to forest concession management. Signs of increasing support include the holding of a National Community Forestry Workshop in 2001, greater support for community forestry projects, and ongoing drafting of a Community Forestry Sub-Decree. Since community forestry remains largely untested as a formalised forest management tool in Cambodia, much still needs to be learned about how community forestry might play a larger role in forest management and this will require increased support, development, and experimentation.

Conclusion

Forestry sector reforms in Cambodia have focused on establishing sustainable forest concession management since 1996. These efforts have largely failed and will continue to do so because concessionaires have strong financial incentives to avoid adoption of a SFM regime. Even if the government's capacity to strictly monitor and enforce SFM could be developed rapidly, SFM would ironically bring an end to forest concessions due to its negative impacts on concession profitability.

Justifications for retaining the current forest concession system appear limited. Significant problems with government revenue generation, concession profitability, forest loss and degradation, and social and environmental impacts attest to a concession system that has fallen well short of envisioned forest management and development goals. Rather than continuing to direct scarce forest management funds and capacity toward the establishment of SFM in concessions, government and donor resources would be better spent on exploring and developing forest management alternatives to concessions.

Endnotes

1 A coupe is a geographically recognisable area of production forest forming the basis of each annual operation area as defined in a forest concession management plan and annual operation plan.

2 DFW notes more than 70 commercial tree species, but only 4-5 of these tree species are considered commercial and harvested by concessionaires. Commercial trees greater than 60 cm in diameter are the main source of marketable timber in Cambodia; minimum cutting diameters vary by species.

3 More useful growth estimates for analysing forest management in Cambodia would assess growth rates under different selective logging regimes. At present, no such studies have been conducted in Cambodia.

4 Field inventories conducted in the 1960s and 1970s suggested an average volume of marketable timber in evergreen forests of 80 m^3/hectare (FAO 1962 and Legris and Blanco 1972 cited in World Bank et al 1996). More recent findings indicate significantly less available marketable timber – 32.9m^3/hectare with wide variation of 10.8 to 63.9m^3/hectare (Fraser Thomas 2000 cited in DFW 2000).

5 Alternatively, profits under "Option A" could be invested for returns in line with those promised under "Option B", but at far less risk (e.g., investments in nearly risk-free U.S. Treasury bonds provide a 3-5 percent return).

6 "Community forest" is "an area of State forest subject to an agreement to manage and utilise the forest in a sustainable manner between the cantonment chief of the Forest Administration and a local community or organised group of people living within or near the forest area [who] depend upon it for subsistence and customary use" (Draft Forestry Law, 20 July 2001).

References

Associates for Rural Development (1998), "Proceeds of Meeting to Brief the International Community and Senior Officials of the Royal Government of Cambodia on Forest Policy Reform" (Phnom Penh: Fortech Presentation).

Chan S., S. Tep, and S. Acharya (2001), *Land Tenure in Cambodia: A Data Update* (Phnom Penh: CDRI) Working Paper No. 19

DAI (Development Alternative Inc.) (1998), *Findings and Recommendations of the Log Monitoring and Log Control Project: Main Report* (Bethesda, MD: Submitted to the Ministry of Agriculture, Forestry and Fisheries, Royal Government of Cambodia).

Department of Forestry and Wildlife (2000), "Annex 4: Annual Allowable Cut" in *Forest Concession Management Planning Manual* (Phnom Penh: Ministry of Agriculture, Forestry and Fisheries).

Fraser Thomas (2000), *Cambodia Forest Concessionaire Review Report* (Phnom Penh: ADB-Sustainable Forest Management Project).

Koum, S. (1992), *Potential of the commercial wood industry* (Phnom Penh: Paper presented at UNTAC seminar on Cambodia's forest resources).

KPMG International Forestry and Environmental Advisory Services Group (2001), *(Draft) The Equitability of the Forest Taxation System in Cambodia*, prepared for Cambodia Timber Industry Association

Ministry of Economy and Finance (2001), forestry revenue data provided to Cambodia Development Resource Institute.

Rice, R. E., C. A. Sugal, S. M. Ratay, and G. A. Fonseca (2001), "Sustainable Forest Management: A Review of Conventional Wisdom", *Advances in Applied Biodiversity Science*, No. 3 (Washington, DC: CABS/ Conservation International) p. 1-29

Royal Government of Cambodia, *Draft Forestry Law* (20 July 2001).

World Bank, United Nations Development Programme, and Food and Agriculture Organisation (1996), *Cambodia Forest Policy Assessment* (World Bank: Report No. 15777-KH).

World Bank (1999), *Cambodia: A Vision for Forestry Sector Development* (World Bank Background Note: 1999 Cambodia Consultative Group meeting).

World Bank (2000), *Project Appraisal Document on a Proposed Learning and Innovation Credit in the Amount of US$4.82 Million Equivalent to the Kingdom of Cambodia for a Proposed Forest Concession Management and Control Pilot Project* (Rural Development and Natural Resources Sector Unit, East Asia and Pacific Region).