2-6. Forests Disappearing from Mekong Watershed Countries

Forests Support People's Lives

"The forest is my home. I cannot live without my home." A farmer making his living in the mountains of Laos said these words. Life in rural districts of countries of the Mekong River watershed is supported even now by the natural resources nurtured by forests and rivers¹.

About 70 million people depend directly on the ecosystem for food, water, livelihood and other important services related to existence in the Greater Mekong Sub-Region (GMS), consisting of the five countries of Laos, Burma, Thailand, Cambodia, and Vietnam, and two Chinese provinces, Yunnan and the Guangxi Zhuang Autonomous Region (WWF 2013: 5).

People engaging in agriculture who depend on the natural environment supplement their unpredictable food production with forest products including bamboo shoots, mushrooms and wild animals². The wood they use to build their dwellings and the thatch for their roofs are also obtained from the forests. In addition, they have inherited knowledge of a variety of medicinal plants used to treat diseases.

Moreover, the respect paid to forest spirits in this region of China's Yunnan Province, Laos, northeastern Thailand, and northwestern Vietnam, and the various traditional restrictions on forest misuse have deterred logging or excessive use of forest resources³.

Minority peoples practice shifting cultivation in the hilly areas of the Mekong basin countries. They cut vegetation and set it ablaze to clear fields, cultivate crops in those fields for a short time, and leave the fields fallow after harvest to let the vegetation recover, after which they are used once again for growing crops. To the peoples practicing shifting agriculture, the forest and farmland are one and the same. In the secondary forests created by shifting agriculture, people can gather a variety of forest products. Some of these forest products only grow in these secondary forests, so people and forests have coexisted, providing mutual support, with the forests providing for people's livelihoods, and people ensuring the forests' biodiversity⁴.

As the Laotian farmer quoted at the beginning of this report said, the people making their living in the farming areas of the Mekong watershed could not exist without the forests. The forests of this region, however, have been subject to rapid degradation during the past half century, threatening these people's existence.

Forest Losses in the Mekong Watershed

According to statistics compiled in 2010 by the United Nations Food and Agriculture Organization (FAO), there are 90 million hectares of forests currently remaining in these five countries, of which 13% is virgin forest, 10% is plantations and the remainder has been degraded but is natural forest that will regenerate naturally if left as it is (Figure 1). The forest cover ratio of each country is 57% for Cambodia, 68% for Laos, 48% for Burma, 37% for Thailand and 44% for Vietnam.

When broken down into forest types, Cambodia and Vietnam in particular have little virgin forest (322,000 ha in Cambodia, 80,000 ha in Vietnam), and compared to other countries, Thailand and



Vietnam have large areas occupied by plantations.

In 1973, the five countries of Laos, Burma, Thailand, Cambodia, and Vietnam combined had a total forested area of 140 million hectares (accounting for 73% of the total area of the five countries), but by 2009 this shrunk to about 100 million hectares (51% of the total area). This means that 31% of the forests had been lost (WWF 2013: 23). On an individual-country basis, since 1980 Cambodia has lost 22% of its forests compared to 1973, Laos and Burma have lost 24%, and Thailand and Vietnam have lost 43%. If unsustainable growth continues to degrade forests at this rate, there are warnings that by 2030, a further loss of about 34% of the forests could occur in the GMS region (not including China) (WWF 2013: 7).

Causes of Deforestation

Several factors have contributed to deforestation in the Mekong region. One is the long continued wars and internal strife. During the Vietnam-American War, the American military used napalm bombs and defoliants sprays which destroyed large areas of tropical rain forest. In skirmishes between communist guerillas and Thai government forces in the central hilly region from the late 1970s to the early 1980s, large areas of forest were burnt in attacks by the government forces (Kashio).

A second factor has been the promotion of agricultural development policies involving conversion of forest to farmland. Development of industrial rubber and eucalyptus plantations and farms for cultivating cash crops such as cassava and sugar cane have resulted in progressive conversion of forests into farmland. In Thailand and Vietnam, shrimp breeding operations have resulted in a devastating loss of mangrove forests. British NGO Global Witness has pointed out the problem of land resource exploitation in Cambodia and Vietnam for Vietnamese-funded rubber plantations. According to their report (Global Witness 2013), large Vietnamese corporations have close connections with the corrupt governmental and financial elite of those countries that allow them to lease vast land areas for rubber plantations, with dire effects on local society and the environment. The report also indicated that Deutsche Bank and the International Finance Corporation (IFC), a global banking group, have supported such activities by investing in these rubber plantation companies without considering

Based on FAO (2010)⁵



A fodder maize field. Mono-cropping has caused soil degradation and erosion (Oudomxay Province, northern Laos).



Land cleared for a rubber plantation (Attapeu Province, southern Laos).

the environment or human rights. The flow of foreign capital to such companies is also a cause of deforestation in this region.

A third factor is development of large-scale infrastructure such as mines and hydropower dams. The Nam Theun 2 hydropower project⁶ in Laos, being constructed with aid from the World Bank and Asian Development Bank (ADB), has flooded 450 km² of forest so biologically diverse that it is also known as "the Galapagos of the East." In 1993 to 1994, prior to this dam's construction, a logging company affiliated with the Lao military cut down valuable trees such as Merkus pines and transported them to the neighboring countries of Thailand and Vietnam. Also, the Nam Theun 2 Power Company (NTPC), which executed the project, inundated the reservoir without sufficiently removing biomass, violating its own environmental and social policies. Dead trees can still be seen standing in the water of the reservoir. Even now, according to official government statistics, about 80% of the annual wood production in Laos comes from logging on land being developed for hydropower dams or mines.







The Nam Theum 2 Dam reservoir. Poor plant removal left many dead trees standing (2009).

A fourth factor is the serious problem of illegal logging. Although there is no precise data in the Laos case, the amount of logging that is officially sanctioned is about half the amount estimated from the actual number of currently existing sawmills and their rates of operation, indicating rampant illegal logging. Since 2001, the Lao government has approved exports only of finished products with regard to wood from natural forests, but the domestic sawmill industry is not as competitive as that

in Vietnam, so exports of raw timber and primary processed products to Vietnam currently continue (Fujita 2012).



Large logs being trucked from southern Laos to Vietnam. The export of logs or unprocessed wood is prohibited, but illegal logging and trading have continued unabated.



Shifting cultivation has been traditionally practiced in the mountains of the Mekong basin. Due to increasing population pressures and development projects, however, farmlands are becoming scarcer in both relative and absolute terms, and cases of destructive land use are increasing.

In addition, the common perception of shifting cultivation, also called slash-and-burn, is that it is a cause of deforestation. It is a sustainable farming method, however, if fallow periods sufficient for vegetation to recover are maintained after harvest. But due to increases in population, infrastructure development projects, and the expansion of industrial plantations and cash crop cultivation, the land area that can be used for shifting cultivation is decreasing. As this has happened, fallow periods have shortened to the point that forests that have not sufficiently regenerated are being cultivated. Farmland that villagers once used in common is being privatized and enclosed for industrial plantations by companies or individuals, also causing the shifting cultivation cycle to be shortened, and in some cases putting increased pressure on the land (Barney 2010). In Laos, the government has promoted policies for relocating minority villagers, concentrating them along roadways, resulting in a relative shortage of farmland for them. The outcome of this has been also shorter fallow periods in shifting cultivation. Far from improving the situation, it has brought about destructive land use practices (Higashi 2010). When considering problems of deforestation due to shifting cultivation, it is necessary to look at background factors. As fallow periods are shortened like this, the ability of nature to recover is exceeded, in many cases leading to soil degradation.

Proposal: Prevent Loss and Deterioration of Forests

Reforestation projects are what usually comes to mind when it comes to measures to prevent forest degradation. Much of the reforestation in the Mekong basin, however, creates plantations of monocultures such as eucalyptus or oil palm which are unsuitable as habitat for wild animals. From the viewpoint of preserving biodiversity and ensuring food security for the region's inhabitants, these plantations have a large negative impact. In some cases, forests where local people were engaged in shifting cultivation or gathering forest products were deemed "degraded forests" and then enclosed and replaced with monoculture plantation projects. It should go without saying that when conducting plantation projects, consideration must be given not only to the type of soil and species of trees to plant, but it is also necessary to consider other environmental and social aspects.

Sustainable forest preservation cannot be achieved without the understanding and participation of local people who make their living in the forest and utilize its resources. In reality, however, in the countries of the Mekong basin, there is limited freedom for local communities to express their opinions on their country's policies or development projects, though the degree of suppression varies. In Laos, for example, citizens who appealed to the National Assembly about problems with industrial plantation projects by Vietnamese companies were detained. In addition to empowering local people in regard to forest preservation, it is important for affected communities and civil society to be able to participate meaningfully in decision-making on forest preservation systems.

In addition to improving forestry systems in each country, in order to prevent the loss or degradation of forests, stronger enforcement of the existing legal system is needed. In Laos and Cambodia, where illegal logging and destructive industrial plantation projects are rampant, laws to prevent these already exist to some degree. These laws are not being enforced properly, however, due to widespread corruption and lack of oversight, and that is leading to forest degradation. International institutions and civil society must closely monitor the situation and demand that necessary changes are reflected in policy. This is not easy, however, in countries with poor governance, where corruption prevails, public servants engage in jobbery and self-preservation is paramount. The aforementioned report from Global Witness shed light on the shady dealings of the rubber plantations run by Vietnamese companies with cozy relationships in the political and financial circles of Laos and Cambodia. The company, however, denies that the report reflects reality and the governments of both Laos and Cambodia are ignoring the report. Logging concession fees are a means of raising money in Vietnam and Laos, and in many cases the military plays a major role in logging (Matsumoto and Hirsch 2003: 135-137). In such cases, external monitoring and filing complaints become difficult.

Under such conditions, one possibility for stopping deforestation might be to cut off the flow of funding for corporate activities that exacerbate deforestation. Of course, improvements in the governance of each country are also required, but at the same time, oversight is needed so that investment funds from international institutions or other overseas sources do not flow into economic activities that lead to deforestation.

<Nature and Our Future: The Mekong Basin and Japan>

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Mekong Watch

Mekong Watch compiled a video documentary in 2013 titled *Transition: Changing Forests Changes Lives in Laos* (<u>http://www.youtube.com/watch?v=ac9OIxLWm2I</u>). This video introduces the connections between the forest and Lao peoples' livelihoods and culture and the effects that policies and economic activities aimed at economic development in recent years are having on the rich biodiversity of the ecosystem and lifestyles respecting the forest.

^{2.} For more details, see BP 1-2 Non-Timber Forest Product Use and Food Security: The Lao Case.

^{3.} See BP 3-1 Spirit Worship and Forest Conservation in the Mekong Basin.

^{4.} See BP 2-9 Shifting Cultivation and Upland Life in Northern Laos.

^{5.} FAO defines "forest" as "land exceeding 0.5 ha in area, on which the crowns of the trees that have reached at least 5 m height cover a ratio of 10% or more of the area" (FAO 2010). Countries define "forest" variously, so figures announced by each government on forest area and forest coverage may differ. For example, the Laotian government defines "forest" as land with a crown coverage ratio of 20% or more, and the forest coverage ratio announced by the Laotian government for 2010 was 40.3%.

^{6.} See BP 2-5 Rapidly Advancing Mekong Tributary Development and its Environmental and Social Impacts: The Case of the Nam Theun 2 Hydropower Project in Laos.