

Challenges and opportunities for sustainable rubber in Myanmar

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Key points

- Smallholder rubber production in southern Myanmar has alleviated rural poverty, while large-scale plantation concessions in the north have led to land expropriation and limited livelihood options for rural people.
- Policies should support smallholder rubber production over large-scale models, while addressing the economic challenges that smallholders face, such as low quality and quantity of latex production.
- All forms of rubber production require regulation to ensure that land use rights of rural people are not infringed upon, forests are not cleared to make way for rubber plantations and the use of agrochemicals is limited.
- A diversity of subsistence and cash crops should be planted – at the landscape level and in plots using agroforestry – to retain higher levels of biodiversity and protect against price crashes.

The expansion of rubber in Myanmar

Myanmar was one of the earliest countries to plant rubber in Southeast Asia, which was first introduced by the British colonial government in the early 20th century and planted by smallholders in Mon State of southern Myanmar (Keong 1973). However, the country's rubber sector long remained stagnant until the national economy opened to private trade and foreign investment and rubber prices increased in the 1990s. This led to an expansion of smallholder production throughout the southern region, comprising Mon State, Kayin State, and Tanintharyi Region. Since 2006, larger-scale rubber estates have been developed in northern Myanmar, particularly in Kachin State and the northern and eastern areas of Shan State (Woods 2012). These plantations were developed by Chinese companies as land concessions from the Government of Myanmar, and were facilitated by favorable investment subsidies to Chinese companies provided by the Chinese government (Woods 2012). Since 2010, concessions have also been granted across southern Myanmar. By 2014, 1.5 million acres of rubber had been planted throughout the country, with 177,000 tons of latex produced that year (Myint 2015). The largest areas of rubber are planted in Mon State (480,224 acres), Tanintharyi Region (319,816 acres), Kayin State (223,144 acres), Shan State (182,363 acres), Bago Region (110,999 acres) and Kachin State (74,589 acres) (Myint 2015).

Rubber has long been a strategic crop for the Myanmar government, but its expansion was driven by market reforms introduced by the State Law and Order Restoration Council government in 1989, which allowed rubber producers to sell a proportion of their latex on the private market – while 45% of their product had to be sold to the government (Myint 2015). Government procurement quotas were abolished in 2005, allowing producers to sell and export their crop without restriction (Myint 2015). Rubber has also expanded because of its heavy promotion by the government as a strategic cash crop, among other agro-industrial crops such as oil palm, pulses and sugarcane (Woods 2012). Government institutions, such as the Perennial Crops Division of the Department of Industrial Crops Development (DICD) under the Ministry of Agriculture, Livestock and Irrigation, have been created to oversee the sector, while research centers have been established in Yangon and Mon State to improve production and trade techniques. The nongovernmental Myanmar Rubber Planters and Producers Association was formed in 2005 to represent the interests of rubber planters, processors, traders and exporters, and promote the development of the sector.

While smaller-scale rubber holdings (less than 20 acres), make up the majority (87.5%) and cover a sizeable portion of the planted area of the country (40.7%), the number of larger-scale plantations has recently increased. Plantations of 20–1,000 acres now make up 53.1% of the area planted nationally (Myint 2015).³ The government passed a number

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3 The size of 6.2% of the planted area is unknown because it is located in inaccessible areas.

of laws to facilitate larger-scale agribusiness concessions. Most importantly, the 2012 Vacant, Fallow and Virgin Lands Management Law (VFW law) permits the government to lease up to 50,000 acres (cumulative total) for up to 30 years, for the development of industrial crops like sugarcane, oil palm and rubber (Oberndorf 2012). As a result, 5.2 million acres were allocated for commercial agricultural concessions by 2013 (Woods 2015). One of the principal critiques of government policy on land concessions is that the land targeted in the VFW law is land to which farmers do not have official title certificates, particularly upland swidden fields and fallows, which are framed as virgin, fallow or vacant (TNI 2013).

The rise of rubber concessions in northern Myanmar has also been heavily influenced by China's 2006 Opium Substitution Program. The program aims to reduce the import of opiates into China from Laos and Myanmar by replacing opium farming with alternative livelihood opportunities. The program gives subsidies and tax exemptions to Chinese companies that replace opium production with other crops. However, research has shown that it is often upland swidden fields and fallows that are being replaced, rather than opium fields, due to a lack of accountability in the program (TNI 2010). As a result, upland farmers have lost access to agricultural and fallow lands essential for their food security, without access to sufficient alternative livelihood opportunities (TNI 2010).

Sustainability challenges of Myanmar rubber production

Rubber has the potential to alleviate poverty and generate rural development in Myanmar, by providing a regular flow of cash income. However, some of the development practitioners consulted are hesitant as to whether rubber is an appropriate crop to promote currently, due to a recent price crash. In addition, a number of economic, social and environmental challenges threaten the viability of rubber production.

While the price crash was identified by interviewees as being the most pressing problem for the rubber sector, another major concern was the low quality of rubber produced in the country and the poor productivity of plantations. Interviewees noted that the low quality of Myanmar latex further decreased the prices producers are able to command. Economic issues in the sector must be dealt with if social and environmental issues are also to be addressed.

A number of social and environmental challenges pervade rubber production in Myanmar. It takes seven years for the crop to mature and yield latex, thus creating a significant length of time when farmers are unable to profit from the crop and the need for wage labor is minimal. Rubber is often planted on lands previously used for agricultural

production or the collection of valuable forest products, jeopardizing food security. Rubber often replaces forested areas, reducing biodiversity and carbon sequestration potential of rural landscapes. Herbicides are commonly used in rubber plantations and can run off into rural waterways. Finally, extensive rubber plantations can lead to drier and hotter local climates.

These economic, social and environmental challenges are relevant in different ways for the two main types of rubber production in Myanmar: smallholder production and land concessions.

Smallholder production refers to the cultivation and sale of rubber by farmers without the assistance of an external investor. It is most common across southern Myanmar, in Mon State, Kayin State, Tanintharyi Region, Bago Region and Ayeyarwady Region. Myanmar has no official definition of smallholding; based on the data collected by the DICD, we defined smallholdings as 20 acres or less. The main social and economic advantage of this form of production is that farmers retain all revenues from production, rather than sharing it with investors. However, they are directly exposed to all the market risks of production, including price crashes and the long wait between planting and maturation, which can threaten food security if large portions of their land have been planted with rubber. In addition, due to lack of market regulation in the rubber sector, producers are unsure of the quality of the cultivars they purchase and they may be exploited by rubber buyers when selling latex.⁴ The environmental impacts of smallholder production are minor in comparison to large-scale estate plantations, due to the smaller amount of land used and the lack of household finances to purchase agrochemicals. However, when multiplied by a large number of smallholders across a whole landscape, the impacts can be significant.

Land concessions are a common form of rubber plantation in northern Myanmar, particularly in Kachin State and the northern and eastern areas of Shan State, although concessions have been developed more recently in Rakhine, Mon and Kayin states and in Tanintharyi Region. Concessions are almost exclusively granted to private, military-connected Myanmar companies, but they are often financed by foreign investors, especially Chinese companies in northern Myanmar (Woods 2015). In the concession form of investment, rubber companies control the entire operation, only hiring local villagers as laborers. Despite the government policy of granting vacant, fallow or virgin land to companies, much of the land granted was previously used for agricultural and foraging purposes by local communities, or provided important ecosystem services. Thus concessions have detrimental impacts

⁴ Stakeholder interview, Yangon, Myanmar, August 2016.

on rural livelihoods (Kramer 2009, BEWG 2011, Woods 2012, Global Witness 2014). Much of the targeted land is in upland, swidden cultivation areas populated by ethnic minorities who have few formal land rights and are unable to protect their lands from expropriation (Woods 2012). While households that lose access to land can find some employment on the plantation, these benefits have been shown to be inferior to the livelihood value of the land, resources and ecosystems lost (Woods 2012). Wages on plantations tend to be low, the number of jobs is limited and often taken by migrant Bamar workers from the south, and there has been evidence of forced labor in some regions, such as Wa State (Kramer et al. 2009, TNI 2010). Land concessions have also been shown to have devastating environmental impacts, particularly widespread deforestation and loss of biodiversity and ecosystem services (BEWG 2011, Woods 2015).

Conclusions: Improving the sustainability of rubber in Myanmar

Despite the economic, social and environmental challenges that rubber production faces in Myanmar, a number of governance and policy measures can be taken to improve sustainability. We outline three key measures: support for smallholders and farmer groups, support for environmentally friendly production and regulation of land concessions. These measures should be incorporated into the Myanmar rubber law that is being drafted (Htwe 2016).

Support for smallholders and farmer groups.

Smallholder rubber cultivation should be promoted over other forms of production because of its greater success in alleviating poverty for rural people and its more limited environmental impacts. Smallholders can plant a diversity of subsistence and cash crops alongside rubber, enabling them to better weather price crashes than large-scale producers. However, smallholders require extensive financial and agricultural extension support. Not only do farmers need access to credit on favorable terms in order to grow rubber, they need some form of price support to help them through years of low rubber prices. Technical extension is important for ensuring that farmers cultivate high-quality rubber in large quantities, and also for helping farmers grow in environmentally friendly ways. Farmer groups can help mitigate production and marketing problems by sharing communal resources and negotiating better prices, but the development of such groups needs to be supported by the state.

Support for environmentally friendly production.

While some negative environmental impacts from rubber production cannot be avoided, the impacts can be significantly reduced. Deforestation can be addressed through land-use zoning and planning to prevent rubber plantations from being developed on primary or secondary

forest areas, and to ensure that the plantations do not displace local farmers and diverse mosaic landscapes of fallow and swidden fields. Environmental impacts can also be lessened by planning rubber plantations at a landscape level, ensuring a mix of rubber with other agricultural and forest land uses. The environmental impacts of rubber plantations need to be monitored, such as the levels of agro-chemical use, by implementing the new environmental impact assessment procedures. Finally, agroforestry models – particularly the mixing of rubber with other food crops, fruit trees, timber species and livestock (Viswanathan 2008, Somboonsuke et al. 2011) – can improve soil fertility and increase species diversity (Cotter et al. 2008, Cardinale et al. 2011), while also increasing latex productivity and providing diverse sources of income and subsistence.⁵

Regulation of land concessions. Some of the most socially and environmentally destructive aspects of rubber production result from land concessions. Better regulation could do much to limit unsustainable practices. Regulations should seek to achieve the following goals: prevent forested lands from conversion to rubber; give communities the right to decide whether to concede lands by using a process of free, prior and informed consent; provide sufficient compensation for lost assets; ensure adequate and fair wages are provided for plantation work; make sure that company responsibilities are upheld; and restrict or highly regulate the use of agro-chemicals, to prevent water pollution. The recent National Land Use Policy is an important starting point for addressing these issues by establishing protected agricultural and ecological land-use zones, recognizing a variety of types of rural land tenure, and promoting public participation and consultation in decisions regarding land use change.

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⁵ Agroforestry models, however, do have trade-offs as a smaller number of rubber trees can be planted per unit of land.

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