



Reducing agriculture-led forest loss in Viet Nam: the role of land use constraints



Land policy is key in deforestation

Agricultural land expansion is a major driver of deforestation in many countries and land use policies play a key role. Regulations governing land access, use and tenure determine the range of farmers' production choices and influence agricultural productivity and sustainability. Restrictive land policies often have negative effects on farm incomes and lead to adoption of coping strategies such as illegal deforestation to acquire additional land for production.

Land policy has evolved but existing constraints still put pressure on forests

In Viet Nam, all land is owned and administered by the state on behalf of the people. The Land Law of 1993 gave farmers a wide range of usufruct rights, which led to a sharp expansion of agricultural land. However, subsequent revisions introduced restrictions on land use and allowed the state to appropriate land for economic development purposes. Today, most of the land use constraints are not binding and farmers may grow the commodity of their choice with one exception: under the rice land designation policy (RLDP)¹ about 35 percent of agricultural land is dedicated to rice while conversion of paddy fields to other land use is strictly regulated.

The land policy reforms from the 1990s to early 2000s, accompanied by increasing market openness, led to a dramatic transition whereby Viet Nam moved from being a net agrifood importer to a major exporter of agricultural products. Yet, this remarkable progress came at a high cost of natural forest loss, making Viet Nam very vulnerable to climate change. Although the country has been working hard to reverse deforestation trends by implementing forest protection and reforestation initiatives since the mid-1990s, natural forests are still at risk.

¹ Viet Nam's 2006–2010 land use plan designated 3.8 million ha to be reserved for rice cultivation, commonly referred to as *rice land designation policy*. Since then it has been maintained.

KEY MESSAGES

- ▶ Agricultural land use constraints increase agriculture-driven pressure on forests.
- ▶ Farmers producing high-value crops have more incentives to deforest and these increase when operating in areas with land use constraints.
- ▶ Removing land use constraints, repurposing agricultural support and reinforcing environmental regulations would improve agricultural productivity, sustainability and climate resilience, while reducing pressure on forests.

With only 0.2 hectares of agricultural land per farm on average,² farmers struggle to be competitive in the international markets given the land constraints established by the government on the scarce availability of agricultural land.

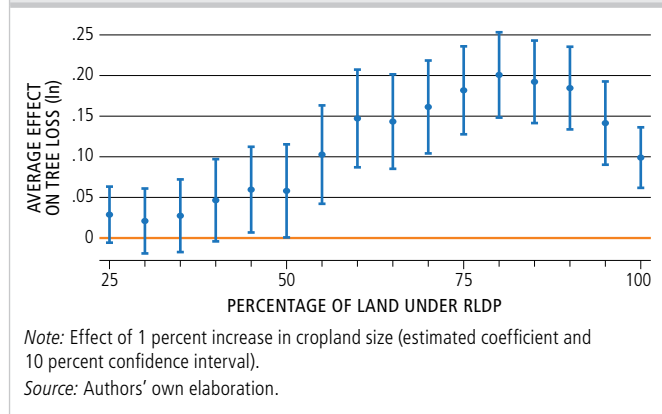
Agricultural land use constraints increase cropland expansion over forest land

An analysis using a combination of geo-spatialized tree loss data, Viet Nam agro-census and data on land under RLDP, demonstrates that the expansion of agricultural land in areas where land use constraints are enforced, intensifies the average level of deforestation. The communes with more land under RLDP face higher levels of land expansion, of which about a fifth comes at the cost of forest. Tree loss intensity is highest when around 80 percent of land in the commune is designated to rice (Figure 1).³ In communes where land use restrictions are not binding, the effect is negligible.

² General Statistics Office of Viet Nam. 2016. *Rural, Agricultural and Fisheries Census*. Hanoi.

³ When more than 80 percent of land is devoted to rice, farms are fully specialised and the demand for land to produce other crops is falling.

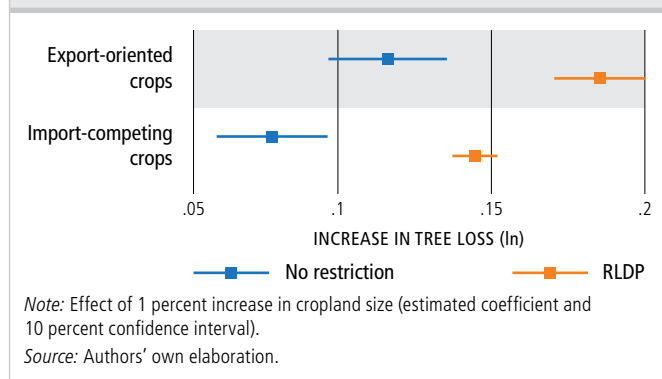
FIGURE 1. Cropland expansion effect on forest loss intensifies with more prominent land use constraints



Farmers producing high-value crops have more incentives to deforest

Although production of any crop is linked to higher tree loss when the expansion occurs in communes with larger RLDP areas, the estimated impact of expanding export-oriented crops is higher (Figure 2). Farmers producing high-value crops observe revenues per hectare of land that are 2 to 4 times higher than that of rice, which provides an additional motivation for land expansion.

FIGURE 2. Export-oriented crops are more likely to induce deforestation under RLDP



Agricultural policy fortifies the land use constraints effects

According to the Organisation for Economic Co-operation and Development's Producer and Consumer Support Estimates database, producers of import-competing crops, such as maize and soybean, are receiving domestic prices above world prices, and this spread results from Viet Nam's policy interventions. This is a direct incentive

for farmers to expand their production without looking for efficiency gains. Producers of high-value export crops receive lower prices than the world prices and are implicitly taxed. Yet, the high demand for these commodities in the international markets and the prospects of profits counterbalance the price disincentives as farmers seek to ensure a suitable level of income. These policy patterns, combined with agricultural land scarcity and the land use restrictions may push farmers to cultivate in the non-designated areas, putting pressure on forests.

Forest protection and relaxing land use constraints are key to the reform process

Easing constraints on agricultural land is key to ensure farmers can maximize their incomes within existing limits of agricultural land. By relaxing the land use restrictions, the land size limits per farm and market-based compensations for compulsory land conversion for non-agricultural purposes, farmers will be able to move from low-value to higher value commodities in existing croplands, encourage farm consolidation and development of economies of scale, both at production level and across the value chain, thus lowering pressure on land expansion.

Supporting long-term productivity, sustainability and resilience are also critical

Agricultural policy reform involving shifting away from price distorting policies is also a key element to stopping land expansion. The policy efforts should focus on improving the sector's competitiveness, quality and value added, while increasing environmental sustainability and climate resilience. This can be achieved through investments in agricultural research and knowledge accumulation; provision of education in rural areas; quality extension services and training for farmers; promotion of new technologies; and improving the availability and access to credit.

Environmental regulations should be reinforced

Reinforcing monitoring of compliance and application of environmental legislation to improve primary forest conservation and protection should be an inherent element of the land and agricultural policy reform process. Efforts should focus on effective implementation of the forest protection regulations, quality monitoring and evaluation systems using real-time satellite data and on-site surveys with a strong partnership between relevant local stakeholders, including institutional actors and farmers. Awareness raising among farmers on climate change impacts and the crucial role forests play to mitigate them would strengthen these efforts.