

Changing harvesting practice in the Amazon

What facilitates and what impedes the adoption of reduced impact logging in the Brazilian and Bolivian Amazon?

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Measuring up: knowing what's in the forest—and where it is—is an essential element of RIL. *Photo courtesy the Tropical Forest Foundation*

BOLIVIA and Brazil have made progress towards implementing reduced impact logging (RIL) in their Amazonian forests in recent years, but such practices are still far from universal in either country. Recently we interviewed eleven people in Brazil (including owners and foresters from seven companies) and 13 in Bolivia (including foresters from four companies). Our aim was to address three questions:

- which producers in Bolivia and Brazil are adopting RIL?
- what specific RIL elements are being adopted?
- what factors are motivating or impeding adoption?

Although several forest communities in both countries have also made substantial progress toward RIL adoption, we focused our efforts on the corporate sector because it represented the largest proportion of forestry activities.

The four Bolivian companies interviewed hold concessions located in the three principal forest types (dry, transitional and wet). Three of these companies, CIMAL/RODA, La Chonta and San Martin, hold 80% (about 650 000 hectares) of the total area of forests certified as well-managed in Bolivia. The fourth, Oquiriquia, is not certified.

The area represented by the seven Brazilian companies is about 800 000 hectares. At present, only Gethal, Mil Madeiras

and Jurua are certified, although CIKEL and Rosa Madeiras recently went through the certification process. Jarcel and Amacol are not certified. Five of these companies are in the eastern Amazon and two are near Manaus.

Forest ownership and market access

Approximately 80% of Bolivia's production forest (by area) is state-owned and the government uses a concession system to grant timber-harvesting rights (40-year renewable contracts) to private companies. In contrast, about 90% of Brazil's timber is derived from privately owned forests. Although the government regulates forestry activities in both countries, confidence in resource tenure security as well as motivation for resource stewardship probably differ between the two kinds of land ownership.

Market access also affects the forest sectors of Bolivia and Brazil differently. Although Bolivia relies on foreign markets (particularly in Europe and the USA) proportionally more than Brazil, accessing these markets is costly because companies must transport wood across either the Andes or the Amazon Basin. This limitation reduces the number of species (and hence volumes) that can be harvested profitably. Similar difficulties exist for companies located in the western and southern Brazilian Amazon: they harvest fewer species and lower volumes than those operating in the eastern Amazon, where roads are better and transport distances shorter.

RIL progress: general trends

In 1996 the Bolivian government enacted a forestry law that mandates sustainable forest management. The technical guidelines for this law are equivalent to RIL prescriptions. The law also created a new, more transparent forest service (Superintendencia Forestal – SF) responsible for law enforcement. According to the SF and other sources, about one-third of the 45 firms operating concessions are making substantial progress towards RIL implementation.

In Brazil, the forest service (IBAMA) has incorporated RIL guidelines into its technical norms for forest management

Motivating good logging

Table 1: The importance of factors motivating the adoption of RIL in Bolivia and Brazil (on a scale of 0–4, 0 = not important, 4 = most important)

Factor	Bolivia	Brazil
Law/enforcement	3	2
Efficiency/cost savings	3	4
Public (NGO) pressure	1	1
Certification/markets	4	2
Technical assistance	3	4
Image/good for forest/safety	2	2

in upland forests. IBAMA rangers audit forest management using RIL prescriptions as their evaluation standard. One indicator of uptake, the demand for RIL training, has increased dramatically in the region in the past five years.

Which producers are using RIL?

The companies making most progress towards RIL implementation are large, well organised and vertically integrated. They also have a diverse product base and own substantial forest areas (Brazil) or have multiple concessions (Bolivia). In Bolivia, most progress has been made by companies that began the transition to improved forest management before enactment of the 1996 law. Such companies realised they would improve their access to international markets if they obtained Forest Stewardship Council (FSC) certificates. To their advantage, the gap between complying with the law (ie adopting RIL) and becoming FSC-certified is small (Jack 1999). As a result, Bolivia leads the tropical world in area of natural forest certified (Nittler & Nash 1999).

In Brazil, the companies making most progress towards RIL adoption are those with enough capital to invest in appropriate technology and training of personnel and with moderately low levels of perceived risk from wildfire or squatters. Although far fewer companies (and hectares) are FSC-certified in Brazil than in Bolivia, these numbers are growing. Given Brazil's strong internal markets that do not yet demand certified wood, the movement toward certification may reflect a growing interest among producers in export markets and long-term forest management.

What RIL elements are being adopted?

Knowing the elements of RIL most commonly adopted may help refine training efforts and also reveal those elements that producers believe are most immediately beneficial. In general, companies in Bolivia and Brazil have most readily adopted the RIL elements that increase efficiency, reduce costs, enable them to comply with the law, and help them improve marketing. Mostly, these include planning (eg harvest maps, annual operating plans, and road planning). Still lacking is full implementation of those RIL elements especially beneficial for the forest, including directional felling and skid trail layout to protect future crop trees, minimal impact skidding, and watercourse protection. Producers must also improve the supervision of felling and skidding crews. Finally, although many producers appear to be valuing the resource more than in the past (eg by leaving low stumps), most can still considerably improve wood utilisation efficiency.

Motivating factors for RIL adoption

Many factors influence the degree to which companies are adopting specific RIL elements and these factors vary between the two countries (Table 1). In Bolivia, improving market access through certification is probably the most important reason for RIL adoption. The 1996 forestry law and its enforcement by the SF have undoubtedly accelerated the pace at which companies are moving toward certification in Bolivia. In Brazil, the most important factor driving RIL is increased operational efficiency and consequent cost savings. It is noteworthy that most companies implementing RIL only became convinced of its benefits after receiving technical assistance and, in some cases, the subsidised training of workers.

Impeding factors to RIL adoption

Given the size and complexity of the region, generalisations about the factors impeding RIL uptake in the Amazon Basin must be viewed with

caution. Nevertheless, several important obstacles are apparent in both Brazil and Bolivia (Table 2). First, the perception that RIL is prohibitively expensive is still common among forest (or company) owners and senior managers. Second, RIL adoption is especially limited where risks from fire and squatters and insecure land tenure prevail. Large transport distances, weak processing capacity, poor organisation and management, and limited stocks of commercial species also seem to be important disincentives. Finally, the lack of trained people at all levels (practitioners to managers) is an important constraint to RIL adoption throughout the region.

Getting in the way

Table 2: The importance of factors impeding the adoption of RIL in Bolivia and Brazil (on a scale of 0–4 where 0 = not important and 4 = most important)

Factor	Bolivia	Brazil
Think RIL too costly	4	4
Lack of understanding	3	3
Forest management not main interest	2	4
General disincentives	3	3
Insecure land tenure	4	3
Risk of fire, squatters, etc	4	3
Lack of trained people	4	4
Lack of proper equipment	1	2
Low volume of valuable species	3	1
Poor market access	4	2
Credit unavailable	3	3
Cheap wood available	1	2

Recommendations

A number of actions may help accelerate the adoption of RIL in Bolivia and Brazil. First, we need to use appropriate media to explain the benefits of RIL to relevant target audiences. The fact that numerous companies across the Amazon have begun adopting RIL suggests a willingness to move towards better forest management. Second, we need to develop and test cost-effective options for the range of producers operating under different conditions across the Amazon. Third, a detailed elaboration of the disincentives to sustainable forest management may help clarify the risks to producers. Better targeted policies may not remove all these risks, but they could create a more enabling environment. Fourth, we need to strengthen third-party certification and other market-based incentives for good forest management.

References

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