

Some doubts about concessions in Brazil

Should Brazil shelve its proposed system of forest concessions?

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THE government of Luiz Inácio Lula da Silva of Brazil inherited, in its National Forest Program, a formidable proposal to increase the area designated to national forests (FLONAs) in the Amazon from eight to 50 million hectares by the year 2010. This objective is an ambitious and worthy conservation goal, and one that appears to be holding approval, give or take a few million hectares, within the new government. Attached to this plan, however, is a lingering desire to allow private timber harvesting on FLONAs through a system of forest concessions.

The decision of the previous government to adopt concessions was based on the premise that such a program would increase profits from forestry, reduce illegal logging, and increase the adoption of sustainable forest management practices (Arima & Barreto 1999, Veríssimo & Barreto 1999, MMA 2001, Veríssimo et al. 2002). The current government has taken a more cautious approach, but nonetheless continues to be tied to the idea of timber concessions in FLONAs. In this article, we question the need for concessions and then identify some major concerns should they become a reality. We argue that while expanding FLONAs is a good idea, allowing timber harvests within these forests is a risk that, for now, Brazilian society should not take.

Why timber concessions?

First and foremost, one should ask whether concessions are necessary. The timber industry is currently supplied by legal deforestation, conventional logging with approved management plans on private lands, and illegal logging on both private and public land. Will timber concessions substitute these existing sources? Not entirely, and, moreover, although the deforestation and management

are 'legal', the regulation of harvesting is poor and much illegal logging occurs. Forest concessions will not change the need to improve monitoring and control of the current industry—a very complicated and difficult task. Indeed, it is likely that concessions will further burden an overstretched government bureaucracy or simply divert its attention from the most pressing problems.

Why then are concessions even being considered? Proponents argue that concessions will increase the area under sustainable forest management (in the form of reduced impact logging—RIL) in the Brazilian Amazon. This is quite likely true, since there is little RIL implemented anyway. If the sole intention is to increase the area under RIL it is quite possible that concessions will be considered successful. It is also an easy indicator to measure. Determining the true cost, however, is quite another matter. In a report to the Brazilian government, Gray (1999) stated that concessions had been the predominant use of public tropical forests and in some cases had succeeded in utilising the forest resource well, but that the economic benefits had often been less than anticipated. Research also shows that in nearly all developing countries, concessions have not achieved the goal of providing an effective framework for sustainable forest management (amongst a long list, Repetto & Gillis 1988 is probably the most well known analysis). Amacher (1999) also suggests that distant concessions that are difficult to monitor may do little to deter cheating or illegal logging.

In the face of the extensive literature identifying problems, there remains a push for concessions on FLONAs and general support within the industry for this program (Barreto & Arima 2002). Support from the industry is easily explained:



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it will receive access to a new, and possibly quite cheap, source of raw material, and the harvest will be sanctioned by the government, thus avoiding costly bureaucracy. In addition, 56% of the respondents in the Barreto and Arima (2002) survey reported that they wanted the government to be responsible for forest management—in other words, they just wanted to harvest. But to provide a continued source of (possibly) under-valued raw material to an industry that has been slow to adopt new technology and still has milling yields as low as 35% (Gerwing et al. 1996) is to ignore the prerequisites for change in the industry. Adoption of new wood-saving technologies has been slow in both harvest and milling industries because of a lack of information in the sector and muted signals of economic scarcity (ie dampened price increase of raw material; Scholz 2000). The addition of a new frontier will only delay technological advancement.

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The key question, however, is whether concessions can provide net economic, social and ecological benefits to Brazilian society. If concessions provide an incentive for sustainable forest management but the costs outweigh the returns, then we believe concessions should be forsaken in favour of simply protecting FLONAs as guardians of biodiversity and other ecological benefits. If concessions are to be implemented, the key issue for policy is how the government should structure concessions and royalties so that adequate levels of government revenue are captured, taking into account, among other things, the costs of effective monitoring, ecological damage, social impacts and intergenerational equity.

Getting the prices right

Royalties are revenues earned by the government—or society—in return for the transfer of harvest rights on public forests to private harvesters. If concessions are to be allowed on FLONAs, the government will need to define

appropriate types of and levels for royalties, but, given the lack of economic information and the heterogeneous ecological conditions found in the Amazon (Lele et al. 2000), it will be difficult for the government to set correct levels. The most likely result will be concessions that are under-priced, from which the government will not capture enough of the potential returns for harvesting and harvesters will capture windfall profits. This problem is not specific to Brazil or the developing world; it is a problem faced, and rarely overcome, by governments irrespective of economic development.

It might appear that the simple solution to under-pricing is setting higher royalties. Imposing high royalties, however, is more difficult than one might think on public land, where government property rights and contracts

with private agents are not well enforced. Recent work by Amacher et al. (2001) suggests that higher royalties may lead to high-grading, the under-reporting of volume harvested or illegal logging, as producers search for ways of avoiding the fees and increasing their forest-harvesting returns. In addition, if the concession fees are relatively higher than those charged for harvest elsewhere, then there will be an incentive to harvest where applicable taxes and fees are lowest. An example is found not far from Brazil, in Bolivia, where relatively high fees were set for concessions. There, concessionaires paid US\$1 per hectare per year regardless of whether it was used in production or not (there is exemption for a 30% set-aside); private land, on the other hand, incurred a US\$1 tax only on the area harvested per year which, assuming a 25-year rotation, is equivalent to a US\$0.04 tax per hectare per year. The result was a steadily declining harvest on concessions, replaced by timber production on private lands: roundwood production in Bolivian concessions dropped precipitously from 867 568 m³ in 1998 to 151 561 m³ in 2001, whereas during the same period production on private land increased from 23 811 m³ to 313 796 m³ (Superintendencia Forestal cited in Bowles Olhagaray 2002).

One could also argue that a competitive bidding process among concessionaires might eventually reveal a correct stumpage price—and this is indeed the most common recommendation made for concession policies. In the Brazilian case, however, there would be a considerable lack of information among bidders, and therefore added risk, leading to lower bids. Further, the majority of the forest industry does not currently practise the type of forest management specified for use in the concessions (ie RIL), further complicating the ability of concessionaires to bid. This will diminish the number of Brazilian bidders and indeed may result in bidding only from large international companies. Large international companies may be efficient harvesters, but fear of the internationalisation of the Amazon is very much alive and may present political problems.

The current government argues that stumpage fees (royalties) will be used to encourage sustainable forestry in concessions. This vague statement exemplifies the inadequate analysis underlying decisions on concessions: the how, when and where are missing. It has also been suggested that higher taxes be applied to private lands and monitoring increased to respectively encourage the adoption of sustainable forestry and ensure compliance with regulations—that would be a good first step before concessions are considered (although the optimal tax level that would encourage forest management has yet to be identified). A good second step, if we assume

the government is able to set a stumpage fee that mirrors the private sector, thus capturing the full value of the resource rent, would be to ensure there is no difference in the economic incentives to adopt sustainable forest management between public and private land.

Government strategies

For FLONAs, the first steps, rather than allocating timber concessions, should be to convincingly demarcate and establish control of the boundaries, then to negotiate a compensation package with the current 'owners', which could be resident communities or municipal and state governments. This will be viewed as a pure cost to the federal government with no visible return, but it is vital for ensuring community acceptance of the new forestry regime. The second step should be to develop management plans for each of the FLONAs. This is a massive task, which again might come at a (high) cost to government; it may be possible, however, to offset this cost through international forestry support, as is the case of the experimental cutting contract in the Tapajós National Forest, which is funded by ITTO. Each of these management plans may or may not have timber harvesting as an activity. They should be supported by extensive ecological and economic research by a diversity of institutions to provide the foundation for the decisions made therein. They should then be subject to public review and debate. It may be that a management plan takes five to ten years to produce, depending on the complexity of the forest condition. But there should be no haste: this is a public resource that if incorrectly managed could have long-lasting negative impacts. Simply demarcating FLONAs and producing viable management plans would be a huge advance.

Concluding remarks

What then are the options for the concession system? It is theoretically efficient to use a renewable public resource if the net benefits to society are positive; so one could argue that within the context of FLONAs there may be situations in which timber concessions can be successful. The range of impacts and incentives in the application of concessions is, however, extensive and includes both economic and ecological components, as well as issues of intergenerational equity. These must all be considered in the design and implementation of timber concessions on public lands.

Our suggestion, therefore, is that the concession program—including any pilot programs—be shelved, in favour of increased attention to the problems at hand of timber-harvesting on private lands; until it is determined that timber harvesting in FLONAs will provide net economic and ecological benefits to Brazilian society. Unfortunately, we are not there yet.

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