

The people of Tapajós

Local communities in the Tapajós National Forest are positive about logging but should be more involved in both management and the sharing of benefits

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THE ITTO PROJECT (PD 68/89 REV.1(F)) carried out in the Tapajós FLONA (see article page 8) was the first experiment in sustainable production forestry in a tropical FLONA. What social and economic impacts has it had? In 2004 we conducted an independent assessment, and present our findings here.

Not empty

When the Tapajós FLONA was created, no attention was paid to the fact that parts of it were occupied, particularly along the Tapajós River. The problem was made worse by the fact that the new FLONA was so close to the new road (BR163), along which a separate agency, the National Institute for Settlement and Agrarian Reform (*Instituto Nacional de Colonização e Reforma Agrária*—INCRA), was encouraging settlement.

Early attempts to expel ‘intruders’ from the Tapajós forest were unsuccessful. Indeed, conflicts started to come to an end only in 1994, when a federal decree opened the way for traditional populations to live legally inside the borders of the FLONA.

Today, the Tapajós FLONA is home to 25 communities, 20 on the eastern banks of the Tapajós River and five on the western shoulders of BR163. In 2003, these communities comprised approximately 876 families (5012 individuals). The municipality of Aveiro also exists partly inside the limits of the Tapajós FLONA: it sprawls over both sides of the Tapajós River; one side is part of the FLONA and comprises about 5000 residents, and the other, not part of the FLONA, amounts to about 15 000 residents.

Most of the interviewed workers said their welfare increased while working for the ITTO project and that the salary earned was used to buy durable products

One of the five communities living in the Tapajós FLONA is made up of *colonos*; it developed as a result of INCRA or Land Institute of Pará (*Instituto de Terras do Pará*—ITERPA) settlement projects close to BR163. The other communities along the Tapajós River are known as *ribeirinhos*, who use land differently to the *colonos*. *Ribeirinhos* base their livelihoods mainly on subsistence crops (such as rice, beans, corn, cassava and pumpkins) complemented by hunting, fishing and poultry. *Colonos* use parcels of land varying in size from a quarter of a hectare to 170 hectares for the

production of such products as pepper, coffee and cattle destined for local, national and even international markets, just like most settlers living outside the FLONA.

Only two communities, in the northern part of the FLONA, have good all-weather road access to the municipality of Belterra. Native rubber products, fruits like *cupuaçu*, and *andiroba* oil are of economic importance for these two communities. Other *ribeirinho* communities engage in less commercial activity and use the river for access to local markets and cities in the region.

The *ribeirinho* communities have still not fully demarcated their zones of influence. Two have claimed rights over one lake, and three of them want to be acknowledged as Indians of the *Mundurucu* tribe; as Indians they are also claiming the right to expand the limits of their communities. The Brazilian governmental agency for Indian affairs, the Indian National Foundation (FUNAI), has already recognised these tribes and designated a working group to demarcate their lands. The demarcation could result in the excising of their areas from the FLONA, which carries the risk of disrupting the cultural and social equilibrium among the communities.

Economic benefits of the ITTO project

The company contracted by IBAMA to harvest the timber from Tapajós, Agropecuária Treviso Ltda, sold its logs exclusively to Cemex (*Comercial Madeiras Exportação SA*—Commercial Timber Exports). During the three first years of the project, Agropecuária Treviso was solely responsible for field operations, but in 2002 it outsourced the development of forest management plans to MAFLOPS (*Manejo Florestal e Prestação de Serviços*—Forest Management and Services). A specific price was paid by Cemex to MAFLOPS for its services. Cemex also assumed the payment of all taxes, fees to IBAMA and freight costs.

According to representatives of both Cemex and Treviso, the amount paid for the services delivered by Treviso were those given in Table 1.

Even using conservative estimates (top wages for field workers and bottom prices for harvested logs), Rodriguez and Bacha (2004) estimated that Cemex/Treviso received an internal rate of return of 36% for their RIL operation in Tapajós.

IBAMA also obtained direct returns, in the form of cash, from the fees it charged. Fees and taxes paid by the contractor (estimated to be some US\$298 000) were close to 20% of the amount IBAMA spent on the project (much of it from ITTO and the UK Department for International Development—DFID). However, these revenues were not internalised by the local IBAMA office in Santarém or the communities in the FLONA. Therefore, the ITTO project was profitable to Cemex

Costs to mill gate

Table 1: Cost of logs transported to the Cemex sawmill

Year	Fees paid by CEMEX (US\$/m ³)			TOTAL
	To Treviso for the logs	To IBAMA	Freight	
2002	10.83	4.00	6.67	21.50
2003	15.00	5.00	8.67	28.67
2004	20.83	6.00	9.17	36.00

Exchange rate: R\$3 = US\$1

and Treviso but was subsidised quite heavily by the project and little if any cash windfall accrued locally.

Impacts on jobs, income and welfare

Data on local-level impacts were collected through interviews with local stakeholders, conducted in May and June 2004, and an analysis of documents provided by Treviso and Cemex. The project employed 42–51 local workers per month. Some 43 jobs were offered during the last year of the project: one forest engineer, one forest technician, one accountant, three loader operators, one tractor operator, two skidder operators, one cook, one cooking assistant, one mechanic, one tire specialist, eight chainsaw operators, eight chainsaw assistants, four skidding planners and assistants, eight log-landing inventory keepers, and two security guards. At the start of the project all hired workers were non-locals, but by the end about 60% were from the local communities. The local workforce tended to occupy low- and medium-qualified positions, such as chainsaw operation, cooking, tree identification, mechanics, log-landing accounting and other supporting roles. Most of the local workers that joined the ITTO project lived in communities that were crossed by dirt roads easily negotiated in non-rainy seasons (São Domingos, Maguari, Acaratinga, Pedreira, São Jorge, Santa Clara, Nossa Senhora do Nazaré e Nova Vida), which created a bias against communities with poorer access.

Wages and working rights

The wage officially paid was the minimum salary for less-qualified workers and twice the minimum salary for the mechanics, although most of them ended up receiving a little more because they worked extra hours. Payments were sometimes delayed, but all interviewees affirmed that Treviso honoured all contractual working clauses, and all workers were hired legally.

Working conditions

No interviewees had complaints about lodging, food or transport. Treviso provided reasonably adequate lodging facilities in the working area, and food was prepared by a cook and an assistant. Extended working periods were very common; usually twelve straight days followed by two days of rest (usually a Saturday and Sunday), but also 25 consecutive work-days followed by five rest days; Sunday afternoons were always reserved for rest in both these systems. All hours beyond the eight hours of daily work were considered extra hours and, according to interviewees, were paid correctly by Treviso.

Most of the interviewed workers said their welfare increased while working for the ITTO project and that the salary earned was used to buy durable products like ovens, bicycles, beds and closets, and non-durable consumables such as clothes, shoes and food. However, the project did not alter the basic lifestyles of most workers, except in two

cases where a small meat business and an 'eco-leather' craft manufacturing enterprise (wallets, purses and backpacks, etc, made out of rubber and latex) were established by ex-workers. All interviewed ex-workers declared they would take a similar job again in future logging operations in the FLONA. Other local workers, who had not worked on the project, said they would take a job in logging operations in the FLONA given what they perceived as improvements in the welfare of those who did get involved.

Non-monetary benefits

All interviewed ITTO project ex-workers claimed they had learned new skills, especially RIL techniques. Some—such as tree identifiers, tree-fellers, skidding planners, and loading-site inventory controllers—considered they had learned a new profession. In addition, Treviso widened and improved local dirt roads that connect BR163 with the Pedreira and Piquiatuba communities.

A negative direct impact

Members of the Piquiatuba community, the closest community to the project, alluded to diminished hunting opportunities (jaguars, deer and tapirs) as one of the main problems introduced by the logging operations.

Future projects in Tapajós or other FLONAs should ... make a greater effort to really involve the local communities as forest keepers and should include mechanisms for transferring greater direct and indirect benefits to them.

Conclusion

The operation turned out to be profitable for the contractor, allowing it to comply with all legal obligations regarding fees, workers' entitlements and logging standards. It contributed to the general welfare of workers living in the communities in the Tapajós FLONA.

The opportunities provided by the logging project in Tapajós created favourable perceptions in the local communities because alternative good local job opportunities are almost non-existent. Future projects in Tapajós or other FLONAs should, however, make a greater effort to really involve the local communities as forest keepers and should include mechanisms for transferring greater direct and indirect benefits to them. These efforts could include the continuation of training programs and direct community control over part of the revenues generated by the royalties and fees received by IBAMA.

Reference

Rodriguez, L. & Bacha, C. 2004. *Análise econômica do projeto de exploração de impacto reduzido na Floresta Nacional do Tapajós—o projeto ITTO*. IPEF, Relatório de Pesquisa, December 2004. Piracicaba, Brazil.