

OPPORTUNITIES FOR FORESTRY INVESTMENT IN BRAZIL¹

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INTRODUCTION

Brazil is a country with vast opportunities for investment in forestry. Both its natural forest and industrial plantation sectors offer attractive opportunities for investment with good financial returns and stable conditions. A great wealth of technical knowledge is available in Brazil for assistance in both the development of plantations and natural forest management. At the same time Brazil now enjoys stable political and economic conditions, and is gradually opening to foreign investment. This paper discusses investment opportunities in the plantation and the natural forest sectors, the conditions for foreign investment, as well as the technical and environmental conditions required for carrying out forestry projects in Brazil.

INVESTMENT IN PLANTATIONS OF FAST GROWING SPECIES

The Brazilian industrial forestry sector is one of the most modern and efficient in the world. It currently consists of 4.5 million ha of plantations of fast growing trees such as *Eucalyptus* and *Pinus*, supplying the industrial sectors of cellulose, charcoal for steel and iron production, and furniture making. Amongst these, the cellulose sector owns half of the industrial plantations of Brazil.

There is plenty of scope for expansion of the plantation sector in Brazil, due to both internal and external factors. Firstly, the internal consumption of wood is three times higher than the level of production from plantations. Consequently, there is considerable pressure on the natural forests, leading to undesirable environmental consequences. Secondly, Brazil's share of the world pulp market (estimated at US\$ 140 billion) is currently only 2 %, but the country aims at increasing its share. According to the projections of the Brazilian Silviculture Society (SBS), Brazil's target for reforestation is about 4 million ha in the next 10 years. This is to supply the production sectors of the pulp and paper, steel and iron, and cement industries.

Technical aspects

Brazil has a comparative advantage in relation to expansion of its planted area, in terms of land availability and cost, growth rates, climate, topography, infrastructure, and technology. The growth rates of its plantations are the fastest in the world, ranging from 35 to 70 m³/ha/year (reaching even 100, in exceptional cases), with a national average of 45 m³/ha/year. This is due to a number of technological

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improvements derived from massive investments in the fields of breeding, forest management, biotechnology and physiology. The plantations of Brazil's nearest competitors, South Africa and Chile, have growth rates around 20 and 25 m³/ha/year, respectively. Furthermore, in Brazil it only takes 7 to 8 years from planting to harvesting at maturity, compared to 10 to 15 years in other competitor countries.

Locations

The areas currently most suitable for forestry plantations in Brazil are the states of São Paulo, Minas Gerais, and Bahia (see Map 1). These states have excellent soils, topography, and climate for the growth of plantation species such as *Eucalyptus* and *Pinus*. Furthermore, these regions are surrounded by a concentration of the final users of wood: pulp and paper mills, steel manufacturers, furniture makers, cement manufacturers, and urban centres consuming fuelwood. These regions are also well served by road, river, and rail transportation.

The government has put considerable emphasis on promoting the development of forestry plantations in the riverine areas along the Tietê and Paraná rivers in Southeast region of Brazil (see Map 2). These rivers provide an extensive navigable network, with 2,200 km accessible to large ships, linking agricultural areas to the major industrialised region of São Paulo. It is connected by road and railway networks to the sea ports of Santos (the largest port of South America) and Paranaguá. By the end of this century this river network will be complete incorporating a link to the Paraguay river, providing access to Buenos Aires, Asunción and the Atlantic port of Rio da Plata. This will integrate transportation between all the countries of the Mercosul treaty, a free trade agreement between Brazil, Argentina, Uruguay and Paraguay.

There are a range of advantages of planting along this river network. Firstly, the soil is very fertile and there is high water availability. Secondly, there is the added advantage that reforestation is greatly needed in order to protect the water courses and water quality. For this reason, there is strong political will to promote reforestation along the water courses, and in 1991 the government initiated a program for protection of watersheds which provides subsidies for farmers and companies willing to replant the riverine buffer zones along their lands. Thirdly, it is adjacent to a series of pulp and paper mills, which are seeking new sources of wood to expand their production, as well as to fuelwood-consuming small industries.

From an economic point of view, such a location would substantially reduce the costs of transportation of wood from the forest to the final consumers. Currently, most products are transported by road. Transportation is one of the main components in the final cost of wood delivered for the large industries, sometimes representing up to 50 % of the total cost. On average, river transport is about 60 % cheaper than road transport, and this difference is likely to increase due to an expected rise in road charges.

Another region which is currently looking for ways of expanding its forest cover is the state of Minas Gerais, where there is a great concentration of steel and iron industries. This industry is supplied by approximately 3 million ha of fast growing plantations, mainly eucalypts, in 21-year rotations with 3 felling cycles. Most of these plantations are now in their third cycle, and there an urgent need to invest in replanting. The Brazilian Association of Vegetable Charcoal (Abracave) has estimated that there is a need to start replanting an average of 140,000 ha per year to maintain the current level of charcoal

supply to this industry. Lack of fiscal incentives, due to the discontinuation of the previous incentive program FISET, as well as high costs of borrowing money internally, are pushing this industry to actively search for alternative ways of financing this enterprise.

Other promising locations for establishment of new forest plantations include the land along the Carajás railroad in Maranhão state; the Campos region, north of Rio de Janeiro state; and in Rio Grande do Sul, the southernmost state of Brazil which offers good conditions and infrastructure for *Pinus* plantations.

NATURAL FOREST MANAGEMENT

In the natural forest sector, the Brazilian Amazon consists of 4 million sq. km of primary rain forest land, representing the largest repository of timber in the world. It has been estimated that the FOB value of standing timber in the Amazon is worth close to US\$ 5 trillion (Brazilian Ministry of the Environment, unpublished). Increasing environmental awareness is leading to the development of a series of initiatives to promote sustainable forestry as well as conservation and environmental programmes in this area.

In order to promote the development of good forestry practices in the Amazon, the Ministry of the Environment has recently negotiated an agreement with the World Bank and the G7 to develop the G7 Pilot Program to Conserve the Brazilian Rainforest (PPG7). One of the components of this agreement is to create a fund to co-finance a series of promising initiatives of good natural forest management identified in the Amazon region. These projects will play an important role demonstrating good practice for other companies operating in the region. Some of the best companies have been used as the role model for other companies to follow, for example the commercial operation of the company Mil Madeireiras, in Amazonas. A similar operation is being initiated by the Companhia Nova Olinda, a private company involved in natural forest management and timber production in the state of Acre.

At the same time that the government promotes the development of good forest management, it is also planning to improve its control mechanisms to reinforce legislation and reduce the number of illegal operations. This activity will also receive financial support from the World Bank and the PPG7, as well as the participation of a number of NGOs (non-government organisations) involved in rainforest conservation.

Technical assistance and training in natural forest management is available from a range of governmental and independent institutions, such as Embrapa (Brazilian Agriculture Research Institute), INPA (National Research Institute of the Amazon), CPATU (Centre of Agroforestry Research of the Eastern Amazon) and in the Universities. Excellent work in the development and demonstration of low impact harvesting operations has been done by Imazon, an independent research institute working with logging companies in Pará state. Imazon works very closely with the Fundação Floresta Tropical (Tropical Forest Foundation), an NGO involved in hands-on training of field staff on low impact harvesting operations.

TECHNICAL AND ENVIRONMENTAL REGULATIONS

The Brazilian Forestry Code imposes a series of regulations on forest operations. The main ones are as follows:

- every rural property must maintain at least 20 % of its area as permanent forest reserves;
- areas such as riverine buffer zones, top of ridges, and steep terrain must be preserved;
- harvesting operations, based on selective cutting, require logging permits which are based on the analysis of 1) a management plan, 2) annual plans of operation, and 3) an Environmental Impact Assessment.

Brazil is a signatory of both the ITTA and the Tarapoto Agreements. The latter defined the Codes and Practices for Natural Forest Management in the Amazon, which should be followed by companies operating in the region. There is a growing interest in independent certification of logging operations, with some companies already certified, which has led to the creation of Imaflora, a Brazilian certification company. Furthermore, there are approximately 5,000 NGOs operating in Brazil, a large proportion of which are involved in forestry issues, complementing the role of the government in the task of controlling contraventions of the environmental law.

POLITICAL AND ECONOMIC SITUATION

Following years of instability, the legal, institutional and economic framework of Brazil is now conducive to investment. Since the new economic plan introduced by the current President, Mr Fernando Henrique Cardoso (previously the Finance Minister of Brazil), the economy has stabilised. Inflation rates are relatively low (about 20 % p. a., compared to the previous rates of 2000 % p.a.), and economic growth is in the region of 5 % p.a. for the third consecutive year. Investment has been sought, and incentives have been created by the government in the form of opening of the economy, tax rebates, profit repatriation schemes, and other similar programs.

Conditions for the foreign investor

In recent years the Brazilian Central Bank has issued a series of Directives with the purpose of disclosing to foreign investors the rules which regulate the registration of foreign investments in Brazil. These Directives are an improvement on past practice, when the Central Bank would decide on matters of interest to foreign investors according to internal regulations which were not published or otherwise made public. The new criteria have granted more legal certainty to the investor, and have also clarified the correct treatment for exchange control purposes of many reorganisation transactions such as mergers, consolidations, spin-offs, etc. These new Directives have also eliminated several restrictions on foreign investors which existed in the past, such as non-registration of financial income as reinvestment, thus reducing the areas of friction with foreign investors.

In recent years, the Brazilian government has worked closely with chambers of commerce of other countries to remove bureaucratic barriers and improve the tax position for foreign investors. Foreign companies are allowed to repatriate capital and remit profits. Normal taxation is 15% on profit

remittances, although lower rates may be specified in international tax treaties. Capital gains remitted will generally be taxed at 25%. Brazil has treaties that avoid double taxation with a series of countries.

A number of formalities must still be followed in connection with foreign investments, and it is essential that investors seek professional advice from the beginning of their enterprises.

CONCLUSION

Associated with the current political stability (Brazil has been fully democratic for the last 10 years), Brazil offers secure social, economic, and political conditions for investment in a highly promising forestry sector. It is important however to emphasise that the Brazilian government and its society, are becoming increasingly aware and demanding of environmental standards, and that it is imperative that foreign investors take into account these expectations.