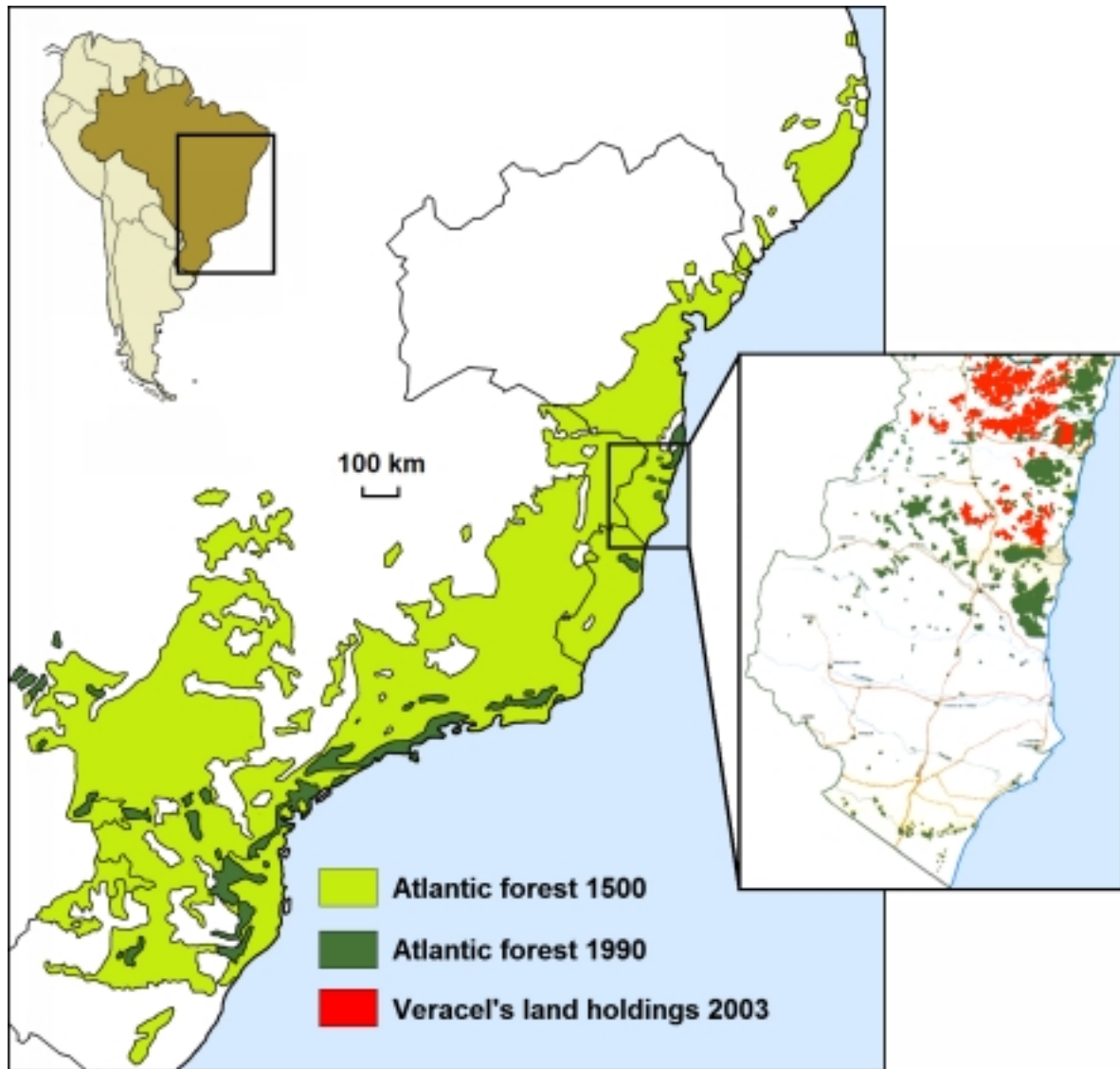


Swedish Pulp in Brazil: The case of Veracel



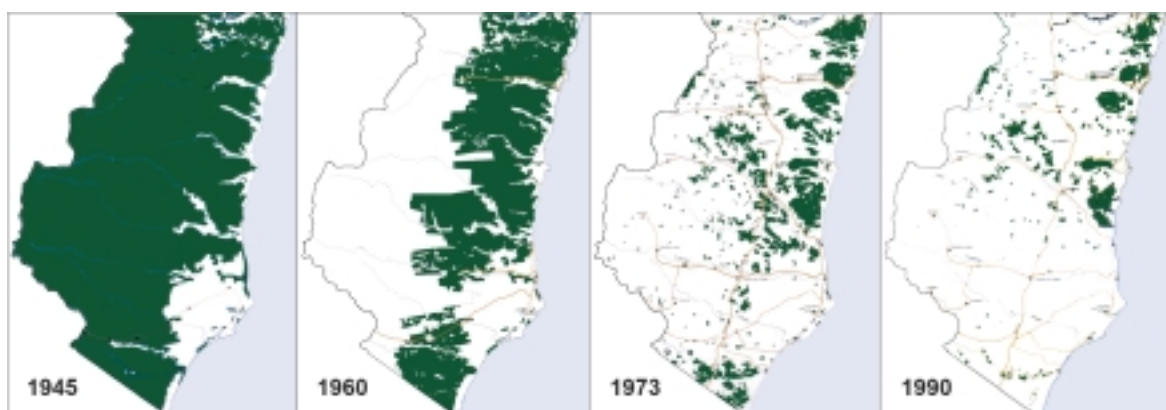
by
Måns Andersson
&
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Loss of forest

Altogether more than 90 percent of the Atlantic Forest has been lost (figure above). In 1945 the southern cone of Bahia was covered with almost 100 percent forest or Atlantic rainforest. Since then, however, the area covered with forest has dropped drastically. Figure 2 below, based on

aerial photographs, presents the forest cover in 1945, 1960, 1974 and 1990. Currently between three and four percent of Bahias Atlantic forest remains and 90 percent of this forest is split up in fragmented patches.



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Executive summary

Of all the natural forests that are lost every year 94 percent are located in the tropics. Throughout the world fast-growing wood plantations and pulp production constitute a major threat to the remaining tropical rainforests and to the local populations who depend on these forests to secure their livelihood. The United Nations Food and Agriculture Organization, FAO, estimates that the global growth rate of tree plantations amounts to 45 000 km² per year. Asia and South America accounts for 89 percent of the total growth. Brazil has, by far, most tree plantations in South America and the majority of the plantations are situated in the south-eastern states.

On the 21 of September 2004, two large manifestations were held against the ongoing expansion of eucalyptus plantations and pulp production in the state of Espirito Santo, Brazil. Members from the movement of landless peasants, MST, and small-scale farmers, MPA, pulled up eucalyptus seedlings from a plantation, which was being sold to the largest paper and pulp company in Brazil, Aracruz. These manifestations were just two in a series of local manifestations and protests against the paper and pulp companies that have been staged the last years.

The Swedish-Finnish company Stora Enso owns a large paper and pulp company, Veracel, together with Aracruz. This report examines Veracel's activities and the criticism directed against the company.

Swedish involvement in Veracel, Brazil

On the 8th of May 2003 Stora Enso's head of the section for Latin America, Nils Grafström, announced that the paper and pulp company Veracel would start the construction of a new pulp mill. Veracel is located in the southern cone of the Brazilian state of Bahia. The pulp mill is supposed to take two years to construct and its annual production capacity will be 900 000 metric tons of pulp. It is expected to produce the cheapest pulp in the world.

The Nordic Investment Bank (NIB), the European Investment Bank (EIB), and the Brazilian Social and National Development Bank (BNDES) have approved financing US 640 million dollar for the pulp mill. NIB will finance US 70 million dollars and EIB US 80 million dollars of this sum. The total investment of the project is US 1.25 billion dollars, making it the biggest private investment in Brazil so far, during the current administration.

Since Stora Enso bought 45 percent of the shares of Veracel in 1997 it has been expected that the company would start building a pulp mill. When the construction was postponed year after year the mayors of the

municipalities involved formed a political alliance in order to try to pressure Veracel to build the plant. The reason for the mayors' actions was the belief that the plant would attract further investments to the region and create a number of new employments.

Yet there is widespread resistance among local organizations and NGOs against the project and environmental organizations from various states have formed a network, *A rede alerta contra o deserto verde* (the network against the green desert), in order to oppose the construction of pulp mills and the expansion of eucalyptus plantations.

Veracel owns 700 km² of plantations. In addition there are 230 km² of plantations, which are owned by peasants and farmers contracted by Veracel. The other owner of Veracel is the Brazilian-Norwegian paper and pulp company Aracruz. This company owns 2100 km² and has additional agreements with peasants and farmers planting an area of 380 km². There is also another large paper and pulp company that is active in southern Bahia, Bahia Sul, which owns 760 km² of plantations. Added together this plantation area is about the size of the Caribbean state of Trinidad and Tobago.

The large economic consultant institution, *Instituto Fundação Calmon*, has stated that the potential of growth of the eucalyptus plantations in the region amounts to 15000 km². This would mean that the size of the plantations would increase several times, compared to their present size. There have been some political attempts to legislate against unrestricted expansion of the eucalyptus plantations. So far, however, the pulp and paper companies have succeeded in lobbying against such restrictions. When a court of the state of Espírito Santo, for example, banned further planting of eucalyptus intended for pulp production, Aracruz appealed to a federal court, which abolished the ban, arguing that it was unconstitutional.

The issues of controversy

The opposition against the industry states that the expansion of the paper and pulp corporations has to be limited since:

- ◆ The expansion of the plantations forces local people, peasants, indigenous groups and Afro-Brazilian subsistence farmers from their land.
- ◆ The pulp and paper corporations appropriate land that otherwise could have been used in the ongoing land reform.
- ◆ The plantations increase the price of land, thus making it harder for the state to buy land to be used in the land reform.
- ◆ The plantations have detrimental effects on the agriculture in the vicinity, and the availability of water is reduced.
- ◆ The plantations obstruct the regeneration of Atlantic rainforest, and have negative consequences for the sensitive flora and fauna in the region.

- ◆ The paper and pulp industry generate few new jobs, despite the fact that huge state resources have been invested in this sector.
- ◆ The construction and operation of the pulp mills have detrimental effects on the environment.
- ◆ The construction of the pulp mills attract thousands of people to the region who do not have the right education to qualify for employment. These migrants tend to settle in the shantytowns of the region's towns and cities, thus increasing social problems.

The organized civil society's opposition to the construction of Veracel's paper mill is based on the assumptions that the effluents will have great negative consequences both for the natural environment surrounding the construction site and for the people who live in the vicinity, who risk losing their sources of subsistence.

The network of environmental and human rights organizations that organize the resistance against the construction of the paper mill asserts that the ecological conditions have changed since the last Environmental Impact Assessment (EIA) was made, and the network therefore demands that a new EIA is carried out. The network is also critical of the fact that the technique used in bleaching the pulp will not be totally chlorine free, TCF. Instead of the TCF-technique the elemental chlorine free process, ECF, will be utilized.

The network also fears that contingents of unemployed may migrate to the site of the construction in order to apply for jobs. The experiences gained from the constructions of Aracruz' and Bahia Sul's plants have shown that thousands of people with inadequate skills migrate to the sites in order to find jobs. When they do not find work they tend to settle in the shantytowns in the peripheries of nearby cities and towns, thus aggravating the social problems of the regions. Veracel has no plan to tackle social problems of this sort, and the local political authorities have neither resources nor the will to curb this situation.

The advocates of Veracel stress the employment opportunities that are created. The amount of available jobs is, however, a contested question. Most of the land where eucalyptus now is grown was previously utilized for extensive cattle-raising. According to one of the most outspoken critics of the paper pulp companies, the priest José Koopmans, the eucalyptus plantations do not lead to any net gain in jobs, compared to cattle-raising and small-scale agriculture. Both Koopmans and organizations that represent farmers and landless peasants argue that plots where fruits of different kinds are cultivated lead to a significant increase in available jobs. They therefore claim that federal and state investments should be redirected from the pulp sector to small-scale agriculture.

The lessons learned from the construction of Bahia Sul's and Aracruz' plants demonstrate that few vacant jobs were created, considering the large sums invested. At the last plant that Aracruz built 173 direct jobs were created. Taking into consideration the investments made this shows

that every vacant job costs 3,3 US million dollars. Veracel's plant will generate approximately 500 direct jobs.

The partnership with Aracruz Celulose

A major problem with Veracel concerns its partnership with joint-owner Aracruz Celulose. Aracruz Celulose is the world's leading producer of bleached eucalyptus pulp, but the corporation also has a long and conflict-ridden history, since its founding in 1968. The local people and the network of environmental and human rights organizations fear that Veracel successively will adopt Aracruz' methods and its inadequate dialogue with NGOs and unions.

The human rights organization FASE argues that Aracruz has acquired land through false promises, threats and destruction of the sources of subsistence of the local people. The organization claims that before Aracruz' expansion in 1967 there were about 40 indigenous villages in the area where Aracruz was active. After Aracruz had established all of its eucalyptus plantations in the area only three villages remained.

The pulp mills have further deteriorated the living conditions of the local people. The large water consumption needed for the mills made Aracruz redirect the courses of rivers in the region, thus decreasing local people's access to potable water and fishing opportunities. The resistance against Aracruz has hardened substantially over the last years. There have been attempts to legislate against further expansion of the plantations and in 2002 the state parliament of Espírito Santo appointed a commission to investigate Aracruz' behavior. Currently there are hundreds of labor lawsuits brought against Aracruz.

So far, however, Aracruz has succeeded in expanding its activities continuously. One of the reasons for this success has been the company's well-developed political network. Aracruz is one of the companies in Brazil, that makes the largest donations to politicians. These contacts have paid off. All three of Aracruz' plants have been inaugurated by the presidents of Brazil and the country's highest political stratum have supported the company.

1: Introduction

The objective of this report is to scrutinize the reasons for the severe criticism that Stora Enso's involvement in paper and pulp production has generated among certain sectors in Brazil. Local opposition to large scale export-companies, however, often lack necessary resources and channels to make their grievances heard. The aim of SwedWatch is to study and monitor Swedish corporations, so that they comply with international conventions, national legislation and ethical guidelines. In this particular case, SwedWatch, with the support of the Swedish Society of Nature Conservation (SSNC), has studied a number of issues of conflict between the partly Swedish-owned paper and pulp corporation, Veracel, and its local adversaries.

The fast expansion of the paper and pulp industry

Brazil is, without comparison, the region of South America with most tree plantations and the highest production and export of pulp. Ever since the military dictatorship was established in Brazil in 1964, the different regimes have supported plantations and large-scale forest enterprises, as part of their general promotion of large-scale export companies. The successive forest policies have aimed at achieving pulp exportation, through generous fiscal subsidies, large loans and removal of judicial obstacles.

Eucalyptus is the main form of fast-growing wood in Brazil. The majority of the plantations and pulp mills are concentrated in the neighboring states of Espírito Santo, Minas Gerais and Bahia. During the last decades there has been a rapid expansion of plantations and pulp production. The Swedish-Finnish corporation Stora Enso is one of the major corporations involved in the paper and pulp sector in Brazil. Stora Enso owns Veracel, together with the Norwegian-Brazilian corporation Aracruz. Veracel is currently the fastest expanding paper and pulp corporation in Brazil.

Both the corporations' plantations and pulp mills have been accused of being associated with serious environmental and socioeconomic problems. The paper and pulp companies have nonetheless received enthusiastic political support from both local and national politicians and generous federal financial subsidies. The politicians have argued that the pulp companies will function as an economic motor in the region. So far, however, there is reason to believe that the companies have contributed to the reinforcement of investments in large unsustainable monocultures and neglected of the needs of the local population. Furthermore, there have been negative consequences for the Atlantic rainforest.

These alleged negative consequences have caused an increasing resistance, on both local and regional levels. A network of environmental

organizations and human rights groups, *A rede alerta contra o deserto verde*, unites a wide array of NGOs and grassroots organizations that oppose the expansion of the paper and pulp industry (see below).

Stora Enso's and Aracruz' purchase of Veracel

In 1997 Stora bought half of the shares in the Brazilian pulp company Veracel. Two years later Stora and the Finnish pulp corporation Enso fused into the company Stora Enso. In 2000 Aracruz, one of Brazil's most controversial companies, became the main shareholder of Veracel together with Stora Enso. Aracruz and Stora Enso also made an agreement that stipulated that Veracel, until their own pulp mill is ready, will deliver its eucalyptus to Aracruz.

Veracel has a strong social and environmental profile. The opposition that has united in a network of local and regional organizations claims, however, that this reputation is based on inadequate knowledge of the real consequences of Veracel's activities. It is the hope of SwedWatch and the Swedish Society for Nature Conservation that this report will contribute to illuminating these controversial issues.

1.1 The corporations involved

Stora Enso

Stora Enso today has around 44 000 employees, spread over five continents and in more than 40 countries¹. In 2003 total sales amounted to 15 US billion dollars. The Brazilian subsidiary was founded on April 1, 1998.

Stora Enso is currently a market leader within the fields of fine paper, packing material and wood products (Stora Enso, 2003a). The company's total procurement of wood to own mills, joint ventures and subsidiaries is 44 million m³ yearly. Of this wood, 45 percent is covered by some kind of certification and 11 percent is certified by the Forest Stewardship Council (FSC) system (Stora Enso, 2004). Regarding certification in general Stora Enso's standpoint reads as follows: "We support all forest certification systems which locally, nationally and internationally get the acceptance of key interest groups" (Stora Enso, 2003b).

Veracel

At present the ownership of Veracel Celulose S/A is equally divided between Aracruz Celulose S/A and Stora Enso. The main assets of the company are 700 km² of eucalyptus plantations, a maritime barge terminal and a state of the art nursery. Furthermore, the company is currently constructing a pulp mill capable of producing at least 900 000 metric tons

¹ The corporation currently has a production capacity of around 15 million metric tons of paper and board annually.

of pulp per year of which each owner company is entitled to 50 percent (Stora Enso 2003d).

Construction costs for the mill are expected to be US\$ 1,25 billion of which 45 percent will consist of own capital and the rest will be loans from several development banks. Currently the company employs approximately 2000 people in the region (Veracel, 2003a).

Aracruz

Aracruz has plantations in northern Espírito Santo, the southern cone of Bahia and Rio Grande do Sul. The total area planted with eucalyptus amounts to 1 700 km². It runs three paper mills in Espírito Santo, with an annual capacity of 2,4 million metric tons of pulp, one paper mill in Rio Grande do Sul, with a production of 400 000 metric tons per year, and is co-owner of the future paper mill of Veracel² (Aracruz 2003).

² Aracruz' current composition of shareholders are: the Lorentzen Group, 28 %; Safra Bank, 28 %; Votorantim, 28%; BNDES 12.5 %, and others, 3.5 %.

2: Method

In the beginning of 2003 SwedWatch decided, together with the Swedish Society for Nature Conservation, SSNC, to investigate the social and environmental impact of Veracel, which claims to be a model example for the paper and pulp industry.

The investigations were conducted in the following manner: background information was collected, dealing both with eucalyptus plantations and pulp production in Brazil in general and with the two companies specifically.

After an initial background material study, the freelance writer Lennart Kjörling traveled to the region in the southern cone of Bahia, where Veracel is active. He collected additional material and interviewed organization representatives and people affected by Veracel's activities.

In April 2003, Måns Andersson and Örjan Bartholdson from SwedWatch traveled to the states of Bahia and Espírito Santo during two weeks, in order to make official interviews with local people who are or will be affected by the plantations and the pulp mill, with local and regional organizations and with Veracel representatives. Furthermore, they interviewed government and state representatives and various researchers who are studying the socioeconomic and environmental effects of eucalyptus plantations and pulp production.

The publication of the report was postponed, however, because of successive events, which were generated by Stora Enso's and Aracruz' decision to initiate the construction of Veracel's paper mill. Since the field-study Stora Enso and Aracruz have decided to invest large resources in Veracel. The network of opposition has, in turn, hardened and intensified its lobbying against the activities of Veracel. A large seminar concerning paper and pulp production in Brazil and Indonesia was held in Stockholm in October 2003. Both representatives of the pulp industry and its opponents from the South and the North were gathered. The seminar clearly demonstrated that the paper and pulp companies and their investors, on one hand, and the NGOs and local organizations, on the other, still are situated in opposing camps.

The lack of adequate research

This report refers to many scientific studies, primarily concerning issues of biodiversity, forestry, the water consumption of eucalyptus and the use of pesticides and herbicides. We have also interviewed a number of scholars of biology regarding these subjects. It is often hard to conduct independent research in the territory belonging to the paper and pulp companies. The companies may refuse to allow scientists who are believed to be critical to conduct research on their land. The companies may also decide

which areas they open up for research and the restricted conditions of research risk exposing the scientists to a certain self-censorship. A fierce criticism of some aspects of the activities of the paper and pulp companies may make further research impossible.

The paper and pulp companies also often sponsor research of various kinds. Such funding may contribute to mitigating critique of the companies' behavior. An example of this is the question of how eucalyptus plantations affect the watercourses and level of the groundwater, as many local peasants assert.

SwedWatch has been able to conclude that there is a wide array of scientific articles that focuses on this particular problem. It is hard, however, to find studies made under circumstances that are analogous to the situation in the region which we study. There are a number of different factors which may differ: the general climate, the amount of precipitation, the type of soil, which subspecies of eucalyptus that are planted and the logging rotation. Yet both advocates and opponents often utilize select studies to argue for their perspective. In order to be able to verify the question beyond doubt the same form of research would have to be conducted on the plantations of the paper and pulp companies in this particular region of Brazil. The only studies of the area to be found, however, turn out to be studies that are sponsored by the companies themselves.

There is unfortunately a scarcity of research that takes the needs and grievances of the local population as its point of departure. Such research would greatly benefit many of the discussions of this report.

3: Background

3.1 The disappearance of the Atlantic rainforest

The destruction of the Atlantic rainforest that used to cover the southeast of Brazil is one of the main ecological disasters of the last century (Warren 1995). Until a little more than 30 years ago an overwhelming part of both the northern part of the state of Espírito Santo and the southern cone of the state of Bahia was covered with Atlantic rainforest³. Small groups of peasants lived interspersed in the area, earning their livelihood on subsistence agriculture.

There has been a profound change of the landscape and of demographic factors in northern Espírito Santo and the southern cone of Bahia since the 1960s. In 1912 there existed more than 215 000 km² of Atlantic rainforest in Bahia. This corresponds to approximately half of the area of Sweden. In the 1960s a majority of this Atlantic rainforest still existed. Three decades later only a little more than 7 000 km² of Atlantic rainforest remained. This means that more than 200 000 km² of the rainforest had been lost through logging⁴(figure 1, page 2). That is an area five times the size of Denmark. When the rainforest had been logged in the southern cone of Bahia the cleared areas were sold to large landowners, who use the majority of their land as pastures for cattle.

In Espírito Santo a mere eight percent of the Atlantic rainforest remain (Conservation International, 2003), and according to the Environment Resources Centre of in Bahia (CRA), the area covered with Atlantic rainforest in Bahia has been reduced to three to four percent of its original extension (figure 2, page 2).

The Atlantic rainforest is considered to be one of the most biodiverse forests in the world. Botanists have, for example, discovered 476 different species of trees in one single hectare, which is significantly higher than in the Amazon. This biodiversity is not limited to trees, the entire plurality of species of flora is extremely high and endangered (Mori et al., 1983; Mori, 1989). The total abundance of species is regarded as one of the

3 The southern cone of Bahia is labeled O Extremo Sul da Bahia in Brazil, and it encompasses the region between the river Jequinhonha and the border to the state of Espírito Santo.

4 New York Botanical Garden 2004. www.nybg.org./bsci/res7bahia/Defor.html

highest and most diverse in the whole world (Thomas & Carvalho, 1998)⁵.

The current situation for the Atlantic forest in the state of Bahia is desperate. Not only is little of the forest left, the remaining rainforest is also highly fragmented, divided into small patches and corridors. Generally, according to the prevailing theories, the rates of extinction of species will increase more rapidly as the remaining area of a habitat decreases⁶. These theories are now beginning to be confirmed by scientific data. In Bahia more than 95 percent of the forest is gone. In order to save at least some species a quick increase in forest cover has to occur, but instead there is a continuous decrease. This decrease has serious consequences. Projects such as clearing regenerating forest for eucalyptus or fruit plantations, hunting, and other resource extraction from the forest would temporarily have to be almost totally terminated in order to halt the process of extinction, something that is impossible to achieve. But if socioeconomic activities could be limited to 90 percent of the land, allowing forest to regenerate on the remaining 10 percent this could lead to a dramatic increase in the probability of retaining some of the original biodiversity.

Currently large resources are being invested in the conservation of the small areas of Atlantic rainforest that still remain. The G-8 countries have, together with the World Bank, decided to invest 12 million dollars in an attempt to preserve the Atlantic forest. However, very little of this money is invested in Bahia.

3.2 The heated land controversy

The clearing of the Atlantic rainforest and the opening up of the area also attracted an increasing number of squatters. The Catholic organization for land reform and land studies, *Comissão Pastoral da Terra* (CPT) states that land properties that exceed 100 km² constitute one percent of the total number of properties in Brazil, yet they cover 45 percent of the entire area of arable land. At the same time CPT estimates that approxi-

5 An overwhelming number of the species of the area exist nowhere else but are endemic. More than 50 percent of the tree species (Mori et al., 1981) and 92 percent of the amphibians (Lynch, 1979) are endemic (Thomas & de Carvalho, 1998). Of the 849 bird species of the Atlantic forest 188 exist only there and new species are constantly being discovered. Of the 197 reptile species 60 are endemic. For many groups of organisms southern Bahia and northern Espírito Santo are distinct areas of endemism. Of the remaining forest a large proportion is fragmented and isolated preventing many species from having a chance of survival. In 1990 only 16 percent of the Atlantic forest remained and only 2.6 percent could be classified as non-fragmented. In Bahia the situation is even worse with less than 3.5 percent forest remaining and only 0.4 percent non-fragmented.

6 For example, if the predicted extinction rate is 10 percent when 50 percent of the forest is lost, the extinction rate could increase to 50 percent if 90 percent of the forest is cleared.

mately 4.5 million families in Brazil lack land to cultivate. The federal institute of land reform, Incra, furthermore, estimates that 62.4 percent of the total agricultural area lies fallow (Pruth 2003).

The distorted distribution of land has plagued Brazil during the last centuries. Its most costly consequence is the large numbers of peasants whose landholdings are not large enough to survive on; these peasants are therefore forced to migrate to the large shantytowns of the cities in search of a job. During the last 25 years 30 millions of rural workers have migrated from the countryside (ibid.).

The distorted distribution of land has been aggravated by the agricultural politics of the governments that have preceded the current administration. These governments have supported large landholdings with generous credits, while the resources directed at small-scale agriculture have been very limited, capriciously distributed and restricted by hard conditions.

The land ownership in Bahia corresponds to the situation in Brazil at large, and the prospect of arable land functions as a strong magnet for landless peasants and small-scale farmers.

The small-scale farmers that practiced agriculture in small fields and patches interspersed in the rainforest often lacked legal documentation of their land. Their land was often forcibly taken by the large ranchers that took control of the vast land areas, and violent conflicts were common, when the peasants were expelled from their land.

The movement of landless peasants, *o Movimento dos Sem Terra* (MST), is arguably the most dynamic and combative movement in Brazil, pressing hard for a thorough land distribution throughout Brazil. Bahia is the state of Brazil where the largest number of families are involved in land occupations organized by MST. The region of Bahia which has most land occupations at the time of writing is the southern cone of Bahia. These occupations demonstrate that there is a shortage of available arable land for small-scale farmers in this region and that MST has gained a strong foothold there⁷.

In the beginning of April 2004 MST organized 2000 landless families that occupied 25 hectares of Veracel's plantations. The leader of MST in Bahia, Valmir Assunção, argued that the plantations did not benefit the local population. The occupation was dissolved after a week of negotiation, in which the government supported Veracel's presence in the area⁸.

Bahia is one of the poorer states in Brazil and it has one of the country's highest rates of illiteracy. This situation is especially serious in the southern cone of the state. The unemployment and underemployment in the capital of Salvador is approximately 26 percent, with comparative figures for the southern cone of Bahia⁹. There is, in other words, no alterna-

7 According to the regional newspaper A Tarde MST has organized 23 000 land occupants in the southern cone of Bahia, distributed amongst 112 camps (A Tarde 2003-12-12).

8 A Tarde 2004-04-08, Fonseca 2004, Kjörling 2004.

9 Source: PED RMS – SEI/SETRAS/UFBA/DIEESE/SEADE 2003.

tive labor market which is able to absorb the peasants who do not have enough land to support themselves.

The largest employment sector in the southern cone of Bahia is the tourist industry along the coast. This area is however exploited beyond its current potential. There is, in other words, a popular demand for land and employment opportunities in the southern cone. Development projects in this region will have to create abundant employment opportunities and/or make large areas of land available to landless and peasants if they shall contribute to alleviating economic and social problems. NGOs argue that development projects that cannot fulfill at least one of these two premises will only aggravate the economic and social problems of the region.

The historic development in the northern part of Espírito Santo has been similar to the one in the southern cone of Bahia. The Atlantic rainforest was beginning to be logged earlier than in Bahia and the area was also opened up commercially at an earlier stage. The land in the region was owned to a large extent by the state, and was inhabited by indigenous people and Afro-Brazilian small-scale peasants. According to organizations that defend the rights of the Indians and the Afro-Brazilians both these groups were driven from their territory through coercion and false promises (FASE, 2002).

3.3 The expansion of the paper and pulp industry

Aracruz Celulose was the first paper and pulp company to benefit from the region's advantages. The company wanted to find the most ideal conditions for the plantations of eucalyptus and the future construction of a paper mill. These conditions included abundant precipitation, large areas of available fertile land and water, tropical climate, closeness to the sea and a favorable political situation which would guarantee security and maximal profit. Northern Espírito Santo offered all these benefits. The only serious obstacle was the settlers, but according to the local population the company used fronts to threaten or lure the settlers from their land (Batista Ferreira, 2002).

Other paper and pulp companies were soon to follow. The corporation Suzano had started to plant eucalyptus in Bahia, and the state owned company *Companhia Vale do Rio Doce* had established plantations of eucalyptus, aimed at providing charcoal for the steel industry. Bahia Sul Celulose was established in 1984, and the state is the main shareholder.

Seven years later the Brazilian construction and petrochemical company Odebrecht founded a subsidiary which was named Veracruz Florestal. Odebrecht planned to plant huge areas with eucalyptus and to construct a large pulp mill. In 1997 Stora bought 45 percent of the stock in Veracruz, and the name of the company was changed to Veracel.

Aracruz faced a hardening resistance towards expansion in Espírito Santo, and available land was becoming increasingly scarce. Aracruz responded to these obstacles by entering into Bahia and purchasing more than 1 000 km² of land (Carrere and Lohmann 1996).

In less than two decades eucalyptus had become a dominating crop in southern Bahia.

The expansion of the companies was met by protests and hardening resistance from the start. The reasons for this resistance is briefly outlined below and elaborated in much more detail further on in this report.

3.4 The issues of controversy

These subjects constitute the main issues of controversy between the opponents and the advocates of the paper and pulp industry in Brazil.

◆ **The effects on the Atlantic rainforest**

All of the companies mentioned above have been accused of cutting down large areas of rainforest. Environmental organizations and biologists also claim that the corporations' forest recovery program is too limited to preserve the biodiversity of the region.

◆ **Illegal or unethical land acquisition**

According to critics the land acquisitions are often highly problematic even when performed in a legal manner. Aracruz has been accused of illegal appropriation of land from indigenous groups and Afro-Brazilian peasants. This appropriation is supposed to have occurred mainly in northern Espírito Santo during the 1970s. In Bahia, land has above all been purchased from large ranches. However, SwedWatch has testimonies from peasants who claim that paper and pulp companies have tried to buy their land, although this is an illegal act, since their land is owned collectively.

◆ **The loss or the minimal gain of employment opportunities**

The critics of the paper and pulp industry argue that it generates few new jobs, despite the fact that huge state resources have been invested in this sector.

◆ **The fast expansion of eucalyptus plantations**

There is a widespread fear that the plantations of the paper and pulp companies will continue to expand dramatically. The critics are convinced that the construction of Aracruz' and Veracel's paper mill will demand a substantial expansion of the plantations.

◆ **The decrease of access to water**

A number of studies have shown that eucalyptus consumes huge quantities of water. The results of these studies coincide with the claims of the local peasants, who argue that the eucalyptus plantations have drained water courses and lowered the level of groundwater.

◆ **The problems with the paper mills**

The network of environmental organizations that oppose the expansion of the paper and pulp corporations, *A Rede Alerta Contra o Deserto Verde*, and many representatives of the local population claim that the paper mills cause damage to the environment and to the living conditions of the local population.

◆ **The paper and pulp sector's formal and informal political influence**

There is also a widespread belief among the opponents to the paper and pulp industry that the companies financial resources and political power are so extensive that they are able to influence and control political decisions on regional, state and federal levels.

3.5 Veracel's and Aracruz' partnership and joint responsibility

The paper and pulp company Aracruz became joint owner of Veracel in 2000, together with Stora Enso. The fears that the network of environmental organizations, *A Rede Alerta Contra o Deserto Verde*, already had concerning the project of Veracel increased after the joint ownership with Aracruz was declared. Several critics of local organizations and NGOs SwedWatch talked to expressed concern that Aracruz' joint ownership of Veracel will make the latter company adapt the same methods as Aracruz has used in Espírito Santo. Some of these critics argued that such a development already is taking place and that the company's own history demonstrates that Veracel can act as aggressively as Aracruz is accused of¹⁰.

Aracruz is the most controversial of all paper and pulp corporations in Brazil. Veracel is also criticized by environmental and social activists, but not yet to the same extent, since they have not been working as long in the area. This is partly due to the fact that the structural conditions, such as land ownership and distribution, in southern Bahia, where Veracel is active, differ from the state of northern Espírito Santo, which has constituted Aracruz' core area. Veracel, on the other hand, has also been more anxious to avoid conflicts with the local population, and its history of action is shorter than that of Aracruz.

From Veracel's point of view the formal cooperation between the two companies has several advantages. Aracruz possesses both technical know-how and a substantial political capital in Brazil, two assets which are very valuable to Veracel.

It is even hard to distinguish the politics of the companies. They cooperate intimately both formally and informally and their expansion of plantations and production of pulp is coordinated. Both companies are

¹⁰ Marcelo Calazans and Winfried Overbeek, Fase; José Augusto Tosato, CEPEDDES, verbal communication 2003; Koopmans 1999.

also in a process of expansion, which the ongoing construction of Veracel's paper mill clearly demonstrates.

Stora Enso, Aracruz and Veracel have all signed the United Nations' ethic guidelines for corporations, Global Compact. These guidelines also make the companies responsible for both contractors and each other's activities. This means, for example, that Stora Enso is obliged to use its influence in order to make Aracruz respect international and national legislation and conventions of environment and economic, social and cultural rights of the local population.

This report intends to discuss the issues outlined above and the responsibilities of Stora Enso and of its partner Aracruz. Some of these problems are of a general nature which concerns all of the paper and pulp companies. Others are specific problems related to Veracel and Aracruz respectively.

The firm behind it all: Jaakko Pöyry Oy

The Finnish Jaakko Pöyry Oy is one of the world's biggest consulting and engineering firms, with net sales of 175 million euros in 2002. The company works in the areas of forest industry, energy and infrastructure and environment. It is estimated that Jaakko Pöyry has 40 percent of the forest industry consultancy market of the world. The company has over 60 offices in 25 countries worldwide, two of those offices are situated in Brazil. Consultancy firms such as Jaakko Pöyry are undoubtedly core actors in the paper and pulp expansion over the world.

A couple of years ago local organizations and FASE organized a large demonstration against Jaakko Pöyry in the capital of the state of Espírito Santo, Vitória.

"We were let into their office and delivered our protests against their part in the expansion of Aracruz. They argued, however, that they had no role in this whatsoever, that they only functioned as technicians. They claimed that they were contracted by the paper and pulp companies when they already had established themselves in Brazil", says Winniefred Overbeek, at FASE.

4: The Veracel case

4.1 Inadequate legislative implementation

Veracel emphasizes that the corporation will follow “environmental, health and safety legislation”. Unfortunately it is hard to conclude if the company adheres to this proclamation. There is a striking consensus among NGOs, researchers and officials that the institutions designated to overlook that rules and laws are followed often lack resources and/or suffer from corruption.

“Brazil has the best laws in the world but the worst implementation”, admitted a senior officer at the Environmental Resources Centre of Bahia State (CRA) to SwedWatch.

While researching this report SwedWatch met numerous people who opposed Veracel’s expansion and felt intimidated by both the corporation and the official bodies. It is hard for SwedWatch to conclude if their allegations are correct or not. But we may take one example which demonstrates that these complaints often may have a serious foundation. On the 3rd of November 2003 Veracel sent a letter to the European Investment Bank, in order to discredit the network of environmental organizations that oppose the building of Veracel’s paper and pulp mill. The letter explicitly pointed out two leading people in the organizations CEPEDDES and FASE.

The letter may be interpreted as a demonstration of the close links between Veracel and national and international institutions. It is also worth noting that the tone is very different from the one Veracel used when the corporation’s representatives met with national and international NGOs at an international seminar in Stockholm in October 2003. Such difference of tone may lead to suspicions that Veracel maintains two entirely different discourses: one that is held privately between the paper and pulp corporations and official bodies and one that is demonstrated in the public sphere.

4.2 The resistance

Veracel has faced resistance since its founding. Due to accusations of illegal logging in 1992-93 and the debate regarding the Environmental Impact Assessment (EIA) and the license of operation, the most intensive period of criticism against the company perhaps occurred in the period

1993 to 1996. A new wave of criticism is currently directed at the company because of its decision to construct a paper mill and the corporation's refusal to submit itself to a new EIA.

Even though Veracel and its shareowner Aracruz have succeeded in expanding their plantations and production of pulp they are facing a hardening resistance. Currently, Aracruz is facing various labor lawsuits. In 2002, a deputy of the state congress of Espírito Santo, Nasser Youssef, introduced a bill in congress, proposing that further eucalyptus plantations intended for pulp production should be prohibited until a mapping and division of the land into zones of different usage has been conducted. The new law was rejected by the federal Supreme Court one year later (FASE 2002).

The same year the state parliament of Espírito Santo appointed a state commission of inquiry, CPI, in order to investigate irregularities in the licensing procedure of Aracruz' third pulp mill. The commission also inquired if and to what extent Aracruz respected the prevailing legislation, human rights and environmental issues. All groups that had been affected by Aracruz' activities bore witness of Aracruz' violations of economic, social and cultural rights and of environmental conventions and legislation¹¹.

Veracel has hitherto not faced such organized resistance as Aracruz, backed-up by influential state politicians and court verdicts. Veracel has also not been in conflict with the local population in the same way as Aracruz. Veracel's landholdings have to a large degree been purchased from large landowners, which means that land conflicts have not been as dramatic as in the case of Aracruz.

Critics, such as the non-governmental organization CEPEDES, and the priest José Koopmans, however, argue that the paper and pulp companies which established themselves in the southern cone of Bahia used the same ruthless methods as the ranchers. For example, according to Koopmans, the corporation Flonibra used fronts to acquire land, using promises, threats and force. All the land that Flonibra has acquired belongs to the paper and pulp company Bahia Sul.

"Bahia Sul is not an exception. I even got to know a person in 1995 who was used as a front by Veracruz¹² in order to buy land for the company that subsequently was transferred to the corporation", asserts José Koopmans.

Veracel faces potential conflicts of land with indigenous groups, but

11 Unfortunately, the commission was possibly used as a tool by unscrupulous local politicians in order to extort money from Aracruz. The crux would have been that the politicians promised to dissolve the commission if Aracruz paid the extortion money. A couple of years earlier Xerox terminated all its activities in Espírito Santo and withdrew from the state after politicians had extorted money from the company (A Tarde, 2003). Currently there are a number of judicial proceedings against several local politicians who are suspected of belonging to a criminal syndicate, which covers several states. The commission that investigated Aracruz was dissolved because of a procedure mistake that Aracruz could use to its advantage. The dissolution of the commission had as a consequence that no final report was presented by the commission.

12 Veracruz was the name of Veracel before Stora Enso became co-owner of the company.

Dreams of development

In the beginning of the 1990s the network of environmental organizations and NGOs, which opposes the paper and pulp industry, *Rede Alerta*, made a survey among the local population of the southern cone of Bahia in order to check the level of support for the establishment of the paper and pulp companies. 45 percent of the population supported the corporations, if the activities would not cause negative consequences, such as pollution, and deterioration of the environment. 38 percent declared that they were against the establishment all together, since they believed that the negative consequence would surpass positive contributions, and 17 percent did not have any opinion on the matter. The commercial, political and judicial sector was highly positive to the paper and pulp companies, while the popular movements, the unions and the organizations of the peasants were negative.

The benefits of the companies were believed to be the creation of employment opportunities, higher levels of tax income, construction of more schools, medical centers and better infrastructure in general.

Negative consequences were believed to be environmental damages, such as pollution of the air and the rivers, the drying up of water courses and the groundwater, the degradation of the soil, and the destruction of the flora and fauna (Koopmans 1999: 94-99).

these are of smaller scale, and have not yet developed. The movement of landless peasants, MST, is critical of the expansion of Veracel, and has even organized, as mentioned above, an occupation of a plantation in 2004. So far, however, MST has not taken any united stance against the company.

Yet, the resistance against Veracel seems to be growing. During the 28th and 29th of June 2003, a conference about the problems with the industry was held where most of the critics of the paper and pulp industry of Brazil gathered. In the joint statement of the conference the present state of the eucalyptus plantations and the pulp production was explicitly condemned. The statement has been handed over to the president of Brazil, Luis Ignacio Lula da Silva.

The Brazilian Institute of Environment and Renewable Natural Resources, IBAMA, and the National Institute of Colonization and Land Reform, INCRA, now appear to be more negative towards the pulp industry than previously. This partly seems to be due to changing governmental policies that have been introduced since President Lula da Silva was installed 2002.

Even before Lula's government had been installed Aracruz arranged a meeting with the top nucleus of the socialist party, PT, in order to lobby for the interests of the company. When the decision to build Veracel's new

pulp mill was presented, both President Lula da Silva and Bahia's Governor, Paulo de Souto, were present (Aracruz, 2003). An economic decision of this magnitude will have effects far beyond the paper and pulp sector, demonstrating that large transnational companies believe that Brazil constitutes a secure ground for investment¹³.

How the resistance against the pulp industry is going to be organized and if it will be able to change state and federal support of the paper and pulp sector is yet an open question. The critique that the network of environmental organizations directs at the paper and pulp corporations take its base in local conditions, while the advocates of the plantations primarily seem to focus on the economic benefits on a state and national level.

4.3 Veracel's pulp mill

Since the founding of Veracel there have been plans to build a pulp mill. However, the realization of the project has been delayed repeatedly. The construction of the pulp mill was started on May 22nd of 2003 and the construction investment is expected to be US\$ 1.25 billion making it the biggest private investment of the current Brazilian administration. The plant is to be located 49 kilometers from the coast, and 5 kilometers south of the Jequitinhonha River (figure 4, page 51). Veracel estimates that the pulp mill, when operational, will increase the number of people employed by the company by 400. The construction of the pulp mill is expected to employ 2 400 people¹⁴.

The mill will be, when operational in mid 2005, the largest single-line bleached eucalyptus pulp mill in the world (Veracel, 2003b), with a capacity of 900 000 metric tons per year and is expected to produce the cheapest pulp in the world¹⁵ (Palmeus, 2003). The mill is also supposed to be able to expand its annual production to one million metric tons, after being tuned up. The owner companies, Stora Enso and Aracruz, will each be entitled to half of the mill's output. Stora Enso will use its pulp to produce fine paper, while Aracruz will sell its part on the market¹⁶.

13 This opinion was given by the economic scholar Andrés Rivarola during a debate at the Stockholm University at spring 2003.

14 Veracel almost never states how many direct employment opportunities the construction of the plant will create. Instead, they prefer to declare that 12 000 persons will be at work, directly and indirectly in the "construction project" (Veracel 2003f). This is also the figure the corporation presents to media (e.g. Silva 2003). This means, in reality, that the construction will demand a labor-force of 2400 workers, and that the other workers constitute an approximation, based on the assumption that one direct job creates four more.

15 The calculated market value of the pulp produced by the plant is expected to be US 500 dollar/ton, while manufacturing costs are estimated to be US 150 dollar/ton. Source: João Fernando Borges, corporate planning manager, Veracel, personal communication, April 2003.

16 Mail answer from Nils Grafström, head of Stora Enso's Latin American Section, 2004-05-06.

By the time of the publication of this report the following companies had been contracted for the construction of the pulp mill: Finnish Jaakko Pöyry Group, engineering and consulting (Paperloop, 2003a); Norwegian Aker Kvaerner, boiler system (Clari News, 2003); Finnish Metso, wood-yard system (Yahoo Finance, 2003); South African Mondi Crafts Richards bay, drying line (Andritz, 2003); Austrian Andritz, fiberline (Paperloop, 2003b) and Swedish Eka Chemicals, “chemical island” (Paperloop, 2003c), and English Invensys Group, automation (Processing talk 2004).

Environmental problems associated with the pulp mill

The Jequitinhonha river ecosystem has kept some of its biodiversity, including the legally protected mangrove forests in the lower parts. Raquel Moura, one of several researchers of the Institute for Socio-Environmental Studies of Southern Bahia (IESB), who has been working in the area, stated:

“We have to accept some environmental effects, but the current location of the pulp mill is very worrying. The area is one of the few remaining areas with high biodiversity in the region. In order to not create environmental problems the production system has to be extremely closed, any leakage might cause irreparable damage.”

The Environment Impact Assessment (EIA), by Jaakko Pöyry Consulting (box, page 20), for the plantations and the pulp mill was accepted by the authorities in 1996. According to the EIA the production should use a technique that is totally chlorine free (TCF). Since then, however, Veracel has changed its mind and decided to use the ECF-technique¹⁷. ECF stands for elemental chlorine free process, and involves no elemental chlorine but produces small amounts of dioxin.

Local NGOs are critical to the decision to change from TCF to ECF production.

“The EIA clearly states that TCF technique ought to be used, but Veracel has changed its mind and decided to only use ECF. This is totally unacceptable”, says José Augusto Tosato, former coordinator at CEPEDDES.

In 2002 the construction of a hydroelectric plant was initiated at Rio Jequitinhonha. This is also the river from where Veracel’s future paper mill will obtain the water used in the production process.

Tosato is also very concerned about the state of the river Rio Jequitinhonha.

“During the EIA the authorities have not taken into consideration that the hydroelectric plant may have changed the flow of water of the river drastically and hence also the dilution of effluents in to the river. It is therefore necessary to demand that a new EIA-study is made”, concludes Tosato.

According to our latest information Veracel had no plans to conduct

17 Through the system of “self evaluation for environmental permit” (ALA), CRA gave an “industrial modification permit” for this in January 2003 (bill 2559 by CRA, 15th March 2003).

a new EIA, which the network of environmental organizations, *A Rede Alerta*, demands.

Socioeconomic problems associated with the pulp mill

As noted above Bahia is one of the poorest states in Brazil. The unemployment and underemployment in the capital of Salvador is approximately 26 percent¹⁸. José Augusto Tosato, former coordinator at CEPEDS, is worried about the potential effects of migration on the area around the building site. He refers to experiences gained from other large Brazilian construction projects.

When Bahia Sul built its paper mill further south in Bahia the number of migrant workers employed at the construction site was much less than the ones who were turned down. The latter group had no choice but to move to the shantytowns of the cities in search of jobs. Around Aracruz mills in Espírito Santo prostitution flourished and most of the migrants were forced to move to the large shantytowns of cities like Porto Seguro and Vitória¹⁹.

Anders Tosterud, director of environmental issues of Veracel 1993-1997, believes that the arrival of a large mass of unskilled workers is going to be one of the few negative consequences of the mill construction.

Nils Grafström, Veracel's Board Chairman, argues that this migration is not the responsibility of the company. In a written reply to SwedWatch in August 2003 he states: "The different equipment suppliers have the responsibility for the engineering, procurement and construction of each package. The suppliers will use their own work force. Veracel will support the contractors with necessary facilities, such as lodging, which will be constructed in cooperation with the municipalities. Veracel is in close cooperation with authorities in order to provide health care, security, etc., for the work force during the construction of the mill."

The regional newspaper *A Tarde* has reported that hundreds of people, many of them unemployed, have already traveled to the area in order to apply for jobs at the plant (Belém, 2003).

4.4 Additional issues of conflict

4.41 The fast expansion of eucalyptus plantations

The 1996 permit for Veracel allowed the company to operate in a 20 000 km² area to buy land and establish plantations²⁰. The establishment of the plantations was subjected to several national regulations. The one that is most straightforward is the total ban on logging of the Atlantic forest.

18 Source: PED RMS – SEI/SETRAS/UFBA/DIEESE/SEADE 2003.

19 José Koopmans and Winfried Overbeek (FASE), personal communication, April 2003.

20 João Fernando Borges, corporate planning manager, Veracel, e-mail communication, August 2003.

There is also a demand of a minimum 20 percent natural forest coverage on land holdings originally forested²¹.

Secondary forest and degraded forest is organized in several categories of which none is allowed for plantation use. In order to be able to control that these rules are followed a photographic map of the area was produced in 1995²². One copy of this map was deposited at the Environmental Resources Centre of Bahia State (CRA). Only land that was “degraded” by the time of the production of the map can be used for plantations²³. All these regulations are also valid for the areas where the eucalyptus is owned by private proprietors. Veracel labels this mode of ownership and production forestry partnership program or *fomento florestal*. Altogether the companies land holdings exceed 1 400 km². In 2001 the company claimed they would use 770 km² for plantation purposes (Veracel 2001). The area, destined for eucalyptus plantations, covers approximately 700 km² and Veracel has contracts with landowners designating another 230 km² for the forestry partnership program (figure 4, page 51).

As previously stated environmental organizations, such as GAMBA²⁴ and CEPEDES, the movement of landless peasants, MST, and the state branch of the National Institute of Colonization and Land Reform, INCRA, declare that the vast plantations of eucalyptus in the southern cone of Bahia that continue to expand, contribute to further obstruct the realization of a land reform. Arable land that theoretically could be distributed among the landless is instead converted into eucalyptus plantations. When SwedWatch visited Veracel, the heads of production, environment and information guaranteed that only land that was inadequate for agriculture was used for plantations. This claim was refuted, however, by all the local organizations. The head of INCRA, Marcelino Galo, also declared that arable land was used.

When MST occupied one of Veracel’s plantations in April 2004 they immediately chopped down the trees and started to plant crops and fruits. The landless peasants argued that the land was perfectly suited for agriculture.

In a telephone interview with SwedWatch, Nils Grafström, head of Stora Enso’s Latin American division, also acknowledged that arable land is used for plantations:

21 In addition, open water areas such as rivers and creeks have, if originally aligned with forest, to have natural forest buffer zones ranging in width from 30 to several hundred meters. Forest plantations are totally prohibited in a ten kilometers wide strip along the coast (figure 4, page 51). The company is also allowed to cover at most 20 percent of each inland municipality and 15 percent of coastal municipalities with plantations. In 2001 Veracel’s forest plantation coverage in the municipalities varied from 0.2 percent to 13.6 percent with an average of 5.8 percent (Veracel, 2001), other tree plantations within these municipalities are not included in these figures. As of July 2003 Veracel had bought 407 land holdings with a mean area of 3.6 km² (361 hectares).

22 Moacyr Fantini Junior, technical manager, Veracel, personal communication, March 2003.

23 João Fernando Borges, corporate planning manager, Veracel, personal communication, March 2003.

24 *Grupo Ambientalista da Bahia*.

“Veracel’s denial must be based on a misunderstanding. Some of the land we use for plantations could definitely be used for other purposes, but I can’t see that there is antagonism between our eucalyptus plantations and agricultural production. There is simply enough land available for both purposes. If more land is needed for agricultural land the authorities can start by expropriating land that is not used”.

The organizations that oppose Veracel’s plantations, on the other hand, claim that the vast land areas controlled by the pulp companies is a continuation of the support to large landowners at the expense of peasants with small land holdings. They further argue that Veracel’s purchase of land leads to increasing prices. Such an effect is visible in Espírito Santo where Aracruz is active. João Fernando Borges, corporate planning manager of Veracel, does not believe that such a rise has occurred in the municipalities where Veracel operates, though²⁵.

“When we purchased half of the shares of Veracel in 1997, we believed that this would lead to a massive increase of the land price. This process never occurred, though, the main reason is probably that the land supply has been great and that the land owners has come to us by their own free will”.

Veracel denies that the company constitutes an obstacle to the ongoing land reform. Its representatives argue that the corporation’s territory is small, compared to the aggregated area of the ranches. This might be true, but as shown above the company owns large parts of several municipalities in the southern cone of Bahia. When this area is added to the areas of other large landholding in the municipalities, only very restricted areas remain where it is possible to practice small-scale diversified agriculture.

There is reason to believe that the alliance between Veracel and Aracruz will result in a substantial increase of the eucalyptus plantations. The main reason for this expansion is the enhanced production capacity of Veracel’s new paper mill. Nils Grafström states that Veracel will not have to expand its plantations to meet the demand of timber after the new paper mill has been constructed. Aracruz, on the other hand, which has supplied its latest pulp mill with timber from Veracel, will have to increase its production of timber to be able to use its own new built plant’s capacity. FASE and CEPEDDES, NGOs that are monitoring the activities of Aracruz and Veracel, fear that the company will have to increase the area of its plantations drastically to achieve this end.

Approximately 20 kilometers outside Eunápolis there is a small squatter settlement of peasants, *Projeto Maravilha*, that received titles to their land after 13 years of constant struggle against the state owned company *Vale do Rio Doce*, which previously owned large areas of land in the

25 Veracel’s own data, from 1989 to 1998, show that land prices in general and their own purchasing prices appear to have increased with around 50 percent during their time of activity in the region. However, no correction for general price increase could be done, no statistical analysis could be performed and SwedWatch has no data regarding the last five years during which Veracel has acquired less land.

region. The farmers claim that the number of farmer families has been greatly reduced because Veracel has clandestinely bought their land. One of the farmers stated that he was offered 30 000 *reais* (at the time 10 000 dollars) for the 15 hectares of land that he owns. According to the land reform legislation, peasants who have received land through the reform are not allowed to sell it.

“MST strongly condemns this practice of buying distributed land²⁶. It shows that Veracel acts as a common large farm-owner”, says Joelson Ferreira de Oliveira, a regional leader of MST.

Marcelino Galo, the head of the Bahia section of INCRA, voices the same opinion:

“The paper and pulp companies are no better than other forms of large-scale monoculture which always has constituted a problem in the history of Brazil. The corporations appropriate land that otherwise could have been bought by the government and used for the land reform”, Galo said.

Veracel denies that the company has ever bought land, owned by squatter settlements, for plantations purposes²⁷. Words stand against word, as is often the case concerning Veracel. Koopmans (1999), however, states that he has interviewed a person who used to function as a front for Veracel, buying land and then selling it to Veracel. Representatives of an influential organization of small-scale ecological agriculture, *Terra Viva*, also assert that Veracel has used fronts to buy land from peasants. The land was subsequently transferred from the front to Veracel.

It has not been possible for SwedWatch to verify this information. During the state parliamentary inquiry against Aracruz several local farmers told the commission that company had used fronts to appropriate their land (Fase 2002). Koopmans (1999) reported that Bahia Sul also has been using fronts to acquire land. These incidents demonstrate that clandestine appropriation of land has, at least, been used as a strategy by the other two major paper and pulp companies in the region, and Veracel has been accused of using the same methods.

4.42 Pesticide use

Veracel uses on average one kilo of the insecticide Mirex-S/hectare and year and one kilo of Roundup/hectare and year²⁸. When Veracel's entire plantations of 700 km² is planted with eucalyptus this will imply a total consumption of 70 metric tons of each substance and year. Roundup normally contains around 40-68 percent of the active component glyphosate. It means that a total of 39 to 47 metric tons of glyphosate is used every

26 Land distributed by the land reform is bought with tax money.

27 João Fernando Borges, corporate planning manager, Veracel, e-mail communication, August 2003.

28 João Fernando Borges, corporate planning manager, Veracel, e-mail communication, August and September 2003). To facilitate comparisons with other data, spraying areas are given in hectares (ha), one hectare equals 0.01 km². If nothing else is stated all pesticide volumes in the text refer to total volumes, active plus inactive components.

year. Veracel's use of glyphosate is thus three to five times higher than the entire amount of pesticides used by the Swedish forestry business (Kemikalieinspektionen 2004).

When it comes to herbicides Veracel uses five to eight times as much as the Brazilian average for tree plantations²⁹. The high level of herbicide usage results in a striking lack of animal life and understory vegetation in Veracel's plantations and the ground in the young plantations appears to be completely sterile. Due to the lack of data the long term environmental effects and the health effects on company staff, local farmers and fishermen remain to be discovered

4.43 The effects on the Atlantic rainforest

Veracel's tree plantations are situated on flat ground. Natural forest has been left in gullies, on slopes and in some smaller flat areas (figure 3, page 31). This is a general practice in order to reduce the risk of infections to spread between stands, but it is also regulated by law in order to protect water catchment areas (see above). Furthermore, Veracel depends on machines for the management and harvesting, which makes the company prefer flat ground³⁰.

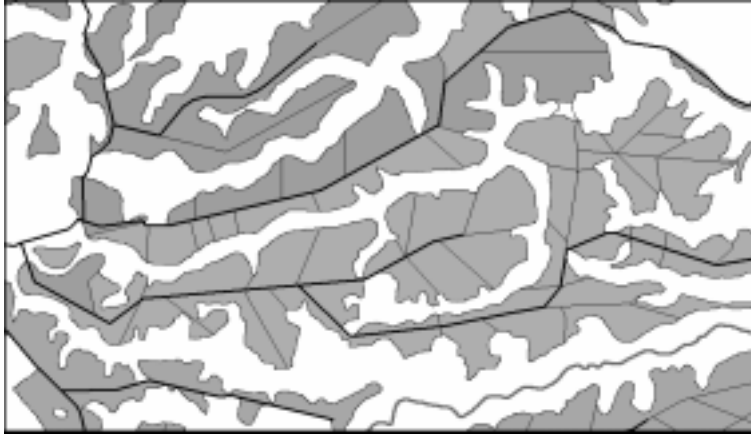
Veracel also states that one of the reasons to keep these forest remnants is to protect and regenerate the Atlantic forest. According to the environmental regulations, however, Veracel is obliged to maintain 20 percent of native forest. The corporation has chosen to "maintain" almost 50 percent, which is located almost exclusively on slopes and in narrow river basins. These are areas where it would be impossible, or very difficult, to harvest eucalyptus trees, since the logging is mechanized.

Furthermore, the quality of the preserved land can be questioned. Pedro Rocha is one of the few scientists conducting research on the relation between eucalyptus plantations and natural forest and the only one working in this region. He is critical of the current state of the "protected" forest areas within Veracel's plantations, and claims that only very small fragments of high-quality rainforest are maintained:

"Of the 700 km² Veracel has set aside for forest conservation and regeneration 153.5 km² is natural forest in different states of forestation, ranging from highly degraded forests over forest in different stages of

29 According to Sindag the average tree plantation in Brazil use 0.085 kg/ha/year (active component). Source: Sindag (National Syndicate of Agricultural Protection Products Industry). João Fernando Borges, corporate planning manager, Veracel, e-mail communication, August 2003.

30 In 2001 the Finnish machine producer Partek signed a five year service and maintenance contract with Veracel and Aracruz covering 39 forwarders and 42 harvester heads (Partek, 2001). Altogether Veracel has purchased 16 harvesters, at a cost of US\$ 210 000 each, and 9 forwarders, at a cost of US\$ 236 000 each. The harvester basic machines are produced by Swedish Volvo and the harvester heads as well forwarders, by Finnish Partek.



Example of a management map from one of Veracel's plantations. The eucalyptus plantation blocks are grey. Preserved fragments of rainforest are located in the white area. Only minor parts of the white area, however, can be classified as rainforest.

There are 113 so called preserved fragments. These generally vary in width from ten to a few hundred meters, most of them are between one and 2.5 km² in size. Around 15 percent of this area is covered with forest in different stages of regeneration and degeneration.

recovery to areas with primary forest. Veracel claims that 30 percent of this is primary forest and 16 percent is in a very late stage of succession³¹. However, although classified as being in a late stage of succession these forest fragments have been subjected to logging. It is impossible, though, to say if the logging is recent or not. The forest fragments are in any case in a bad state. Within Veracel's area it is very hard to find pieces of good forest, but it is those good parts that Veracel show on their homepage and in their publications".

Rochas' claim that most of the rainforest on Veracel's property is fragmented and in bad condition is shared by many other environmentalists.

"It is true that they [Veracel] have constructed a national park, *Estação Veracruz*. That is, however, the only major part of Atlantic rain-

31 According to Veracel the vegetation on the legal reserve and preservation areas is distributed as follows (hectares): Total, 71 221; Atlantic rainforest remnants, 37 156 which is divided in to the categories; primary forest, 5 038; advanced stage of regeneration, 3 622; intermediate stage of regeneration, 2 1341; initial stage of regeneration, 5 334; cabruca (native forest mixed with cocoa cultivation), 445; mussununga (low forest on sandier soils), 1 089; planted by Veracel (native species), 287; grassland 34 065. Areas to be recovered/managed by Veracel Atlantic forest Program covers, 28 237 and the permanent preservation areas cover 5 828. The Classification is in accordance with the definitions of CONAMA—the National Agency of Environment as follows: Primary forest=conserved forest; advanced stage of regeneration=mean height >12 m, mean diameter >18 cm; intermediate stage of regeneration=height 5 m to 12 m, mean diameter 8 m to 18 m and Initial stage of regeneration= height < 5 m, diameter < 8 m. João Fernando Borges, corporate planning manager, Veracel, e-mail communication, August 2003.

forest on their property. The rest of the rainforest is dispersed into narrow corridors and small patches”, argued José Augusto Tosato, former coordinator at CEPEDDES, during SwedWatch’s visit.

Loss of biodiversity associated with clear cutting of the Atlantic forest Veracel has not been caught cutting down Atlantic rainforest since 1993, and it has made a demonstration to prove that it has changed its environ-

The problem with the timber transports

Currently, the bulk of the timber from Veracel’s plantations is transported on barges down to Aracruz’ pulp mills in northern Espírito Santo (see cover photo). In order to ship the timber Veracel has constructed a barge terminal on the coast approximately 20 kilometres south of the city of Belmonte.

There have been widespread reports that Veracel has had a lot of problems with the transports by the barges. When the port was built there was also a documented fear that the barges would interfere with the sensitive mating grounds of humpback whales, located outside the coast of the southernmost part of Bahia.

Nils Grafström, Stora Enso’s head of the section for Latin America, admits that there were problems initially with the sea transports:

“At first we used barges that were not constructed for marine transports. These barges were pulled by a towboat, linked by a 100 meter long steel cable. The turbulent sea made the barges roll and furthermore the pulling of the cable made abrupt jerks, so that a lot of timber fell of the barges. The main problem, however, was the cables that lay in the water. The transport of timber passed a very sensitive area where humpback whales are mating, and as long as the cables were used there was a risk that the whales might get hurt. The old barges have been replaced, though, with three new barges, especially constructed for sea transports. These barges will be pushed not pulled, thus we will have no more problem with any cable.”

One IBAMA officer, preferring to remain anonymous, has observed that the barges sometimes are using the shortcut through the Caravelas, a marine reserve on the coast.

The risk for the humpback whales have been accentuated by the fact that Aracruz also has been transporting timber on more or less the same scale from its plantations in southern Bahia to its plants in Espírito Santo.

The environmental organizations have not only feared impact on the whales, but also the effects the lost timber may have on coral reefs and mangrove forests. At the time of SwedWatch’s visit to the area, there was little knowledge regarding the matter among NGOs, scientists and authorities and no study on impacts of this phenomenon had been published.

mental policy, turning an adjacent area of 60 km² into a rainforest reservation, which was baptized *Estação Veracruz*.

The illegal logging occurred when Odebrecht was the sole owner of Veracel (at the time called Veracruz Florestal Ltda.). Due to this, the further expansion of the company was temporarily stopped by the Brazilian authorities in 1993.

Even if Veracel does not log rainforest its purchase of land and eucalyptus timber risks being an incentive to private landowners to cut down rainforest on their land, in order to plant eucalyptus. In December 2003, for example, a controller group of the federal environmental bureau IBAMA, denounced that a large area of Atlantic rainforest on a ranch had been logged. The area was being planted with eucalyptus for Veracel, in accordance with the corporation's *Fomento Florestal* program. The planting had already been approved by the municipal environmental department. The incident raises questions concerning the efficiency and honesty of municipal control and of Veracel's control and responsibility for the private plantations of eucalyptus that the corporation sponsors (A Tarde 2003-12-17).

Veracel claims that it has never been involved in clear cutting of Atlantic forest, after the incident 1993, which occurred before StoraEnso and Aracruz were shareowners. As support for this statement they refer to the rules included in their concession (see above). The company claims that this guarantees that none of their areas that currently have been planted with eucalyptus were covered with Atlantic forest in any state of degradation or regeneration (see next page). Company representatives state that the maps produced in 1995 will guarantee that this also will be true in the future. However, these maps were produced after the company had been planting eucalyptus for three years, and after the company had already been discovered cutting down native forest³².

"Veracel is the only company in the region that doesn't buy land that was forest on the 1995 map, regardless in what state the land is today", says Danilo Sette, chief of environmental affairs at Veracel.

Veracel seems to put greater value on the native forest than it did when it was owned by Odebrecht, but problems still exist. Critique against Veracel's current maintenance of Atlantic rainforest comes from local organizations and government officials as well as from researchers connected to national and regional research institutions and universities.

Dr. Pedro Rocha at the biology department at the Federal University of Bahia in Salvador could, despite having covered only a small part of Veracel's land holdings, present GPS-based data to SwedWatch demonstrating that the company does have plantations in at least one area that, according to their own maps, should be covered with Atlantic forest.

32 The occurrence of these cuttings were filmed by Carlos Gomes, Sindicato Sinticel, personal communication, April 2003.

Veracel's forest recovery program

Veracel has initiated a forest recovery program. According to this program the Atlantic forest is divided in three categories: the initial state, with trees lower than five meters, the intermediate state and the advanced state.

“All actors in the region, small-scale peasants, farmers and Veracel, continuously cut down the first stage, which is not protected by law if the landowner already has 20 percent of the property covered with forest. It is also common, however, that all these actors cut down trees of the second stage. This is not permitted, but the Brazilian Institute of Environment and Renewable Natural Resources, IBAMA, does not have enough resources to control and prosecute such transgressions. When it comes to Veracel it is also extremely hard to control if and where they cut down secondary and tertiary rainforest, since the only one who has maps which can be used as a control is Veracel”, says José Augusto Tosato, the former coordinator of CEPEDS.

As mentioned above, CRA has a copy of all so called orthophotos produced from the aerial survey in 1995 and according to Veracel's corporate planning manager, João Fernando Borges, IBAMA inspects each property when Veracel presents the land use map based on such orthophotos before approving new planting³³.

SwedWatch concludes that the company apparently does some minor cutting of Atlantic forest. The company representatives, for example, allowed SwedWatch's team stop the car and take photographs of a small (0.02 km²) area where the forest and a small hill had been removed to give place to a temporary timber storing area.

Government officials, scientists and environmentalists in the area to whom SwedWatch talked generally agreed that the logging problem of Veracel probably is minor. One CRA official, preferring to remain anonymous, stated that everyone knows that Veracel cuts down some forest, but that they are far better than most other landowners in the area.

Instead, Raquel Moura, researcher at the Institute for Socio-Environmental Studies of Southern Bahia (IESB), wants to point out that some of the land that Veracel buys is covered by bush-land and low forest, so called *capoeira* and that there ought to be some control of what happens to this type of vegetation. This is of importance, since this *capoeira* can be secondary forest developed after the creation of the maps in 1995. This type of *capoeira* represents the first step towards the desperately needed regeneration of forest areas. However, currently there are very limited possibilities for authorities to control violations of logging regulations. Veracel claims that the locations of *capoeira* and Atlantic forest remnants within Veracel's land holdings are known by CRA. Officials at CRA have told SwedWatch that they lack this information and that the first updated maps over the area can be produced during 2004.

33 João Fernando Borges, corporate planning manager, Veracel, e-mail communication, August 2003.

Furthermore, CRA in Bahia is completely undermanned, with a handful of people covering an area larger than France³⁴.

Isolation of native forest remnants

Critics assert that the remnants of Atlantic forest within the plantations are too small and isolated to support sustainable populations of many plants and animals. Dr. Pedro Rocha, at the biology department at the Federal University of Bahia in Salvador performs research in Veracel's Atlantic forest fragments.

“Preliminary data demonstrates that some animal species with low dispersal capacity use some areas of old eucalyptus near the Veracruz Reserve, *Estação Veracruz*. Eucalyptus areas far from the reserve, though, seem to be less suited to maintain many of these animals. Furthermore, one has to remember that we are performing our studies in “old” eucalyptus forest with more understory vegetation. The situation in the eucalyptus that is one to five years old is probably worse”.

In this context it also has to be underlined that every seventh year, after harvesting, the understory vegetation is completely removed, first mechanically, then chemically, creating areas inhospitable for all animals and plants.

Within Veracel's land holdings the forest is fragmented indeed. There are 113 “forest” fragments with areas ranging from 0,50 to 37 km², with the majority of the areas between 1 and 2,5 km² ³⁵.

Deborah Faria, assistant professor of zoology at the Santa Cruz State University (UESC), is not satisfied with the prospects of the forest fragments:

“There has to be more source areas connected to the forest fragments³⁶. Furthermore, some research has to be done about how these narrow corridors of forest work, and we do not know how fauna and flora are affected by the clear cutting of the eucalyptus every seventh year. There are forms of land use, such as the agricultural technique where agricultural plantations are interspersed in the native rainforest, that are far superior³⁷.”

In defense of Veracel's policy, Danilo Sette states that the company plants native species to connect forest fragments and that three km² have been planted so far.

34 Bahia covers 567 300 km² of which Veracel controls 0.16 percent.

35 Pedro Rocha, researcher at the University of Salvador, personal communication, March 2003.

36 Many animal and plant species have their populations divided into “source areas” with high probability of species survival, and “sink areas” with lower probability. In case of local extinction in a “sink area” organisms re-establish there by spreading or migration from the “source area”. Hereby a bigger population can be upheld.

37 This type of plantations is called *cabruca* plantations. They consist of crops, generally cocoa, grown in the shade of forest trees. It has been demonstrated that these plantations currently are vital for the survival of many forest species. Due to falling world market prices and the fungal infection “witches broom” the cocoa plantations have at a high pace been transformed in to pastures, forest plantations, etcetera in a high pace. The latest reports, however, demonstrate that the fungal infection has decreased rapidly and that certain trees are immune against the disease. There is widespread hope among the remaining cocoa plantation owners that the crop will be commercially competitive again.

“We have a regeneration plan for the forest and we are trying to persuade local farmers to join us in the reforestation in order to connect the source forest of the Veracruz station with the fragments within the plantation³⁸.”

One official of the Environmental Resources Centre of the state of Bahia, CRA, commented on this statement in the following way:

“Many of the people at Veracel mean well, especially Danilo Sette, but they do not get much done. I asked Veracel why they don’t do their recuperation of the Atlantic forest in some priority areas, they said it was because one Atlantic forest tree costs the same as one eucalyptus tree and it’s better to wait for the natural regeneration.”

Veracel’s forest regeneration program has received much criticism and according to FASE the company has, through political pressure, managed to get rid of significant forest recuperation requirements originally demanded by CRA³⁹. In this context it is also important to remember that strips of “natural” moist forest between the plantation blocks is an excellent and cheap way to keep pests and fires from spreading in the plantations. These strips thus have additional positive outcomes for the plantation companies, but the companies do not need vast coherent areas of rainforest, areas which would greatly increase the biodiversity.

4.44 The loss of a diverse, sustainable agriculture

Farm workers associations and environmental organizations criticize Veracel for transforming diverse agricultural land (see above) into monocultures, inhospitable for both people and the local fauna and flora. In addition, the company’s acquisition of large land areas has raised land prices and reduced the economical possibility to establish a more diverse form of agriculture.

From 1950 to 1985 the area that was used for agriculture in the southern cone of Bahia expanded from 670 km² to 2 590 km². After the latter year, however, the agricultural area started shrinking and in 1993 the area had been reduced by almost 60 percent (Koopmans 1999). The number of farms has decreased between 1960 and 1990, while the number of landholders with large landed properties has greatly increased. The largest of these landed properties belongs to the three main paper and pulp companies: Bahia Sul, Aracruz and Veracel. There is, in other words, two divergent developments, where agriculture literary is losing ground, while the paper and pulp companies are continuously expanding.

SwedWatch interviewed peasants whose small plots of lands lie adjacent to Veracel’s plantations. They argue that there is no difference in fertility between the land they cultivate and the one used by Veracel and

38 The Veracruz station (Veracel’s forest reserve) constitutes the main core or source area of biodiversity for the areas left to conservation by the company. It is situated east of the plantations and the forest patches within the plantations are isolated from it by pastures, eucalyptus and other forms of land use.

39 Winfried Overbeek, FASE, e-mail communication, August 2003.

believed that the latter land also ought to be used for farming. The peasants' point of view was also confirmed when landless peasants occupied a Veracel plantation, cut down the eucalyptus trees and planted beans, among other crops. At the subsequent harvest the peasants reaped 100 sacks of beans⁴⁰.

Veracel responds to this criticism by claiming that the forms of land use totally dominating the area prior to their arrival was cattle farming on pastures, covered with exotic grass species.

Koopmans (1999) argues, however, that at least one eighth of the land previously was used for diversified small-scale agriculture. He also states that the use of different fronts may disguise that land that is sold as pasture may well have been used for agriculture shortly before.

Representatives of Veracel alleged that the applied alternatives agricultural practices, such as pastures and papaya plantations, are not more diverse or sustainable than eucalyptus plantations. This point of view is hard to understand, however. There are several different forms of agriculture⁴¹, but the one the *Rede Alerta* promotes is the one where the cultivation is interspersed in the Atlantic rainforest, the system labeled *terra cabrocada*. This view was supported by all biologists and agronomists interviewed in this report.

4.45 The decrease of access to water

Rainfall in the region is evenly distributed over the year with an average around 1200 mm/year and for commercial and technical reasons Veracel claims that the corporation does not plant eucalyptus in areas with an annual rainfall below 1000 mm/year⁴².

All small-scale farmers that we interviewed who lived adjacent to Veracel's plantations stated that the precipitation and the water level of creeks, ponds and lakes had decreased substantially the last decade⁴³. This was one of their greatest grievances, and they all attributed this change to the eucalyptus plantations. They even argued that sometimes watercourses have disappeared totally, thus affecting the people's livelihood since irrigation and fishing become so much harder to achieve. The peasants who live close by the plantations of Aracruz in the state of Espírito Santo makes the same complaints regarding the decrease of access to water as the peasants SwedWatch met in Bahia (e.g. Batista Ferreira 2002).

Veracel argues that the observations made by the small-scale farmers

40 Reported by the filmmaker and freelance writer Lennart Kjörling, who filmed the landless occupations of Veracel's plantation.

41 One of the traditional forms of agriculture has been small patches, which have been cleared besides the rivers. The peasants have cultivated cacao, interspersed with mandioca, bananas, corn and beans.

42 Moacyr Fantini Junior, chief engineer, Veracel, personal communication March 2003.

43 Veracel argues that this is incorrect and show data from the city of Eunápolis, in the centre of the company's land holdings, suggesting that precipitation has not decreased (João Fernando Borges, e-mail communication, August 2003).

are incorrect. Veracel's environmental officer, Danilo Sette, states that the corporation has taken measures to guarantee that the eucalyptus plantations will not be harmful to the local populations. Such measures include a ban of planting eucalyptus near water sources or streams.

Although no proper scientific data exists from the humid tropics there is overwhelming evidence demonstrating that forestation of open land with tree plantations in general, and eucalyptus plantations in particular, lower stream flows and subsoil water levels in the subhumid tropics (Samraj et al., 1988; Sikka et al., 2003), the subtropics (Scott & Smith, 1997; Scott et al., 1999) and the temperate zone (Bosch & Hewlett, 1982; Trimble et al., 1987; Fahey & Jackson, 1997).

The magnitude of change of water levels depends on a number of factors. It has been demonstrated that tree plantations often consume more water than natural forests, also in humid areas, but when one takes into account repeated harvesting, with periods of no or low canopy coverage, the effect could diminish (Dudley et al., 1996).

If eucalyptus plantations are replacing pastures with little or no forest cover, as is mostly the case in southern Bahia, the reduction in available water can be expected to be high⁴⁴. It is lamentable that no long-term adequate and independent research concerning this urgent issue has been conducted in the southern cone of Bahia. The complaints made by the small-scale farmers who live in the proximity of the plantations ought to be reason enough for the corporations to encourage such studies.

Daví Sarney is a 56 year old farmer who lives in a settlement outside Eunápolis that is situated at the border of one of Veracel's plantations. He says that the eucalyptus has affected the rainfall in the area.

"The last ten years, since the eucalyptus was planted, it rains much less than before".

Sarney's words were repeated by almost all of the small-scale farmers who live close to Veracel's plantations.

Furthermore, clear cutting large areas all at once is likely to cause local fluctuations in smaller rivers (see above). The biological effect of these fluctuations on adjacent Atlantic forest remnants and streams are not currently known. One of the forest machine operators working for Veracel declared that they cut entire areas around rivers and creeks⁴⁵. This is also the prevailing technique SwedWatch observed, which was confirmed by Veracel's management maps (figure 3, page 31). Fluctuation in water absorption and run-off is not actively limited by the simple means of mixing smaller plantation blocks of different age. In addition there are no buffer zones between the clear cuttings and the thin strips of natural forest, recovering forest and grass land in the valleys interspersing

44 Dr. L.A. (Sampurno) Bruijnzeel, Department of Hydrology and Geo-Environmental Sciences, Faculty of Earth and Life Sciences, Vrije Universiteit, Amsterdam, e-mail communication, August 2003.

45 Anonymous machine operator, personal communication, April 2003.

the plantation blocks. Hereby harvesting of the eucalyptus can have dramatic effects on the animals living in the adjacent forest fragments. A local farmer expressed his concern of the decrease in animals when the eucalyptus was cut down.

“We used to hunt in the forest, but when the eucalyptus was cut down all the animals disappeared.”

4.46 The loss or the minimal gain of employment opportunities

One of the main benefits of the establishment of the paper and pulp companies, according to Stora Enso and Veracel, is supposed to be the creation of a large number of employment opportunities. This benefit is emphasized by all of the advocates of the paper and pulp corporations: company representatives, politicians on all levels, journalists and, not least, many of the local population. José Koopmans has, however, criticized this belief severely and presented elaborate calculations in order to support his statements.

“The corporations have accused its critics of being against the development of the region. Yet they have never succeeded in answering my questions concerning the net benefits of employment during the public hearings that were held concerning the construction of the paper mills”, says José Koopmans.

In order to compare employment opportunities between the paper and pulp corporations and small-scale agriculture Koopmans uses calculations made by the farmer organization *Terra Viva* and the Union of the Rural Workers. According to their figures, based on research in the municipality Itamaraju, agriculture creates ten employment opportunities in every 50 hectares while cattle breeding yields only one.

SwedWatch has used Koopmans' (1999:117-122) method to investigate how large Veracel's employment contribution actually is. Veracel owns a total of 1400 km². Half of this area is not used for plantations, but, according to Veracel's statements, put aside to be a haven for Atlantic rainforest. Koopmans makes the assumption that 73 percent of Veracel's land previously was used as pasture, 13,5percent as small-scale agriculture and 13,5 percent was made up of shrubbery or first stage rainforest. As noted above, cattle breeding yields one employment opportunity per 50 hectares and agriculture one per five hectares. The shrubbery does not yield any employment. If one takes Veracel's entire land area into accounts 5 684 persons would previously have earned their livelihood there. If one generously takes away all the area that supposedly is set aside for preservation of native forest, the land would have employed 2 842 people.

Veracel has declared that the paper mill and the plantations will generate 2000 direct employment opportunities (Veracel 2004-01-19). This heavily subsidized industry would, in other words, lead to a net loss of employment opportunities.

Koopmans does not, however, discuss the creation of indirect employment opportunities, in the commercial and service sector. If the net

income of the workers of the corporations is substantially higher than in the agricultural sector this would create more indirect jobs. Plantations workers tend to be more dependent on their income than peasants, who can, at least partly, rely on their own production. Veracel calculates that every direct job at the company creates four indirect ones. Thus Veracel would generate 10 000 jobs altogether. If we calculated that people

Illegal logging

In 1993 the paper and pulp company Veracruz was caught cutting down Atlantic rainforest. The illegal logging occurred when Odebrecht was the sole owner of Veracruz (the company was renamed Veracel after Stora Enso became shareholder 1997). Due to this, the further expansion of the company was temporarily stopped by the Brazilian authorities in 1993.

One of the witnesses to the cutting of Atlantic forest was Carlos Gomes, who is currently one of the leaders of the trade union Sindicato Sinticel at Aracruz, in Espírito Santo:

“It was Greenpeace who sent out a warning that Veracruz was cutting down rainforest in an area between Eunópolis and Porto Seguro. We entered the area and started filming the incident. Odebrecht used tractors linked with heavy chains in order to clear the area. We were hunted by guards, but succeeded in escaping.”

Carlos Gomes continues: “Greenpeace then reported the incident to IBAMA and to the judicial system. IBAMA staged a public hearing, but we could easily discover that Odebrecht had sent a lot of contracted people, in order to reject the accusations. The Minister of environment decreed a moratorium on all activities during two and half years.”

According to the priest José Koopmans, who was a member of the team that filmed the incident, CRA and Ibama visited the site and stated that the denunciation was false. He argues that this verdict either was due to incompetence or corruption, proving the political influence of the paper and pulp corporations. Koopmans also accused Veracruz of staging popular demonstrations, supporting the corporation, in order to affect the minister of environment who chose to inspect the site himself.

To the surprise of Gomes and Koopmans the corporation was fined and the minister declared that they had to produce an Environmental Impact Assessment in six months. The corporation was also obliged to recuperate the area that had been cleared.

According to Anders Tosterud, director of environmental issues of Veracruz 1993-1997, the commission of inquiry found that in altogether one km² it could not be established if land clearing had been legal or if vegetation classified as forest had been cleared. Both Gomes and Koopmans, however, argue that the area that was clear-cut consisted of primary native forest and that the area was much larger than Tosterud alleges.

employed in agriculture and at the ranches generate two indirect jobs for every direct one, Veracel would still create a net loss of employment opportunities if one includes all their land. Was half of the land area exempt, however, Veracel would create a surplus of jobs, albeit a small one.

The investments of the National Economic and Social Development Bank, BNDES, in the construction of Veracel's paper mill amount to 495 million dollars. This means that every direct job at the plant has cost the Brazilian state almost one million dollars. This is a large difference compared to the sums that are invested in small-scale agriculture in the region.

4.47 The paper and pulp sector's formal and informal political influence

The four major paper and pulp corporations in the southern cone of Bahia; Aracruz, Veracel, Bahia Sul and Cia Suzano de Papel, donated almost one million dollars to 27 different political candidates of Bahia in the election 2002 (Pacheco 2004, de Souza 2003a, de Souza 2003b).

The overwhelming majority of the donations were given to politicians who ran for seats in the state congress. This demonstrates that the paper and pulp companies were mostly interested in expanding their influence on a state level (de Souza 2003a).

The business sector which donated the largest sums to state politicians was the paper and pulp industry, followed by the construction sector.

Aracruz is the third largest private financial contributor of political campaigns in Brazil. A large share of the donations was paid to a handful of influential politicians in Espírito Santo and Bahia. In fact, Aracruz was the largest donor to politicians in Bahia of all companies (de Souza 2003b). Veracel does not reach the same level of donations to politicians, but the company is able to profit from Aracruz' financial contributions.

Veracel's and Aracruz' connections to influential persons and positions are visible on all regional and social levels.

Regional level

State and local politicians have put a lot of pressure on Veracel, in order to influence them to make the decision to build the pulp mill. These politicians believe the paper mills are to be the main vehicle behind the creation of employment opportunities and a general development of the region. When the construction of the paper mill was postponed year after year the mayors of the eight municipalities where Veracel's plantations are located formed a formal lobby-group, whose only objective was to persuade Veracel to decide to build the plant.

Veracel also has created two social projects, *Sementinha* and *Ser Criança*, which are supposed to help children and adolescents who live in a precarious situation. It is beyond the scope of this report to analyze these projects. We can conclude, however, that this contributes to enhance the corporation's political influence and goodwill. It is common that the media which covers Veracel's activities mix reports of the corporation's

business activities and support to social projects, as if the entire corporation constitutes a welfare program (e.g. Toralles 2004).

State politicians

The paper and pulp corporations in Bahia have received political and economic support from the consecutive state governments ever since they were established in the state. There have been several attempts in the last decade to try to attract foreign industry and investments to Bahia. In spite of generous conditions, such as low taxation, these attempts have not succeeded very well. The paper and pulp companies have been an exception, and state politicians hope that these corporations will be able to attract other industries to settle in Bahia and boast economic growth. The state budget decreased 2003, largely due to the decrease of federal resources. In a recent interview State Governor Paulo Souto emphasizes how important he believes that Veracel and the other paper and pulp companies are for the economic development of the state (A Tarde 2004-01-04). This unconditional support of the paper and pulp industry does not seem to wane. On the contrary, Veracel and Aracruz have been able to convert this support into political capital, and, thus successfully lobby for economic and political benefits.

Federal level

Aracruz' three paper mills have all been inaugurated by consecutive Presidents of Brazil. This is a clear demonstration of the close links between the paper and pulp corporations and the governments of Brazil, independent of their ideological profile. The opposition had hoped that this situation would change when the socialist candidate Lula was elected. So far, however, this hope seems farfetched. Even before Lula's government had been installed Aracruz arranged a meeting with the top nucleus of the socialist party, PT, in order to lobby for the interests of the company⁴⁶.

In January Labor and Employment minister Jaques Wagner inaugurated a professional training center Veracel had set up in Eunápolis. During his visit to Veracel Wagner emphasized the importance of the project for the regional economy, and he made clear that the government supports the construction of Veracel's paper mill (Veracel 2004-01-19). It is hard to tell if there are any doubts about Veracel in the government, but so far, however, there have not been any signs of this.

In early January 2004 the Queen of Sweden, Silvia, inaugurated an elementary school named after her in the district Barrolândia in the southern cone of Bahia. The school was donated to the district by Veracel. Before the inauguration the Swedish Queen visited Veracel's Nature Park *Estação Veracruz* and the construction site of Veracel's future paper mill (Toralles 2004). As noted above, the decision to build the plant without

46 Winniefred Overbeek and Marcelo Calavans, personal communication, April 2003.

making a new Environmental Impact Assessment was criticized severely by the popular network which opposes the expansion of paper and pulp sector in the region. Queen Silvia did not meet with the opposition and her visit to Veracel may be interpreted as a support of Veracel's position. The close links between Veracel, Aracruz and the Swedish Court is further demonstrated by the fact that both Erling Lorentzen, head of Aracruz, and Nils Grafström, head of Stora Enso's Latin America division, are members of the Brazilian board of the World Childhood Foundation. This foundation was founded by the Swedish Queen and is one of her major concerns.

The opposition that criticizes Veracel's activities has small chances of achieving the same amount of political influence on any political level as Veracel. Nor is the opposition against the pulp industry covered in media in proportion to its extent. Its financial resources and political contacts cannot in any way match that of the paper and pulp corporations. The media's covering of the issues concerning the paper and pulp sector is a little better in Bahia than in the neighbor state of Espírito Santo, where local media does not report of the resistance at all.

4.48 The migration to the cities

One of the supposedly negative consequences with the construction of the paper mill and the establishment of the plantations is the migration of small-scale farmers from the countryside to the towns and cities of the region. The cities unfortunately do seldom offer anything but odd jobs, since the employment opportunities are scarce indeed. The tourist sector of southern Bahia is not able to offer enough employment opportunities and it is also seasonally based. When SwedWatch visited the area in April an extended line of empty hotels, lodges and restaurants was visible along the shore around the main center of attraction, Porto Seguro.

A group led by the priest José Koopmans (1999) conducted a study of the people who had migrated from the village São José, located between the towns Teixeira de Freitas and Alcobaça. The village is squeezed between large plantations of eucalyptus and 85 percent of the villagers sold their land, primarily between 1988 and 1990, at the same time that the first paper mill was constructed in the region. The main reason the farmers gave for selling was that it was no longer possible to cultivate their land "in a dignified manner". 83 percent of the migrants declared that their living conditions were worse after they had sold their land.

It would be illuminating if a larger survey was carried out in order to discover the approximate number of persons who have migrated from the countryside because of the plantations, and to compare their present socioeconomic situation with their previous state of being.

5: Conclusion

As we have noted there are several problems related to the current situation of the paper and pulp industry in general, and to Veracel and Aracruz specifically. The opposition's main criticism at the moment is directed at the ongoing construction of Veracel's future paper mill. The opposition demands that Veracel conducts a new Environmental Impact Assessment (EIA), since the construction plans, and the environmental situation at the construction site may have changed. So far, Veracel and the responsible government bodies have declined to consider to make a new EIA.

There are also several reasons to question the long-term sustainability of the paper and pulp production. The critics of the paper and pulp corporation regard the plantations of eucalyptus as yet another monoculture, which contribute to aggravating Brazil's social and economic problems. Since Veracel and Aracruz are two of the main paper and pulp companies, they are targets of this critique.

The critics argue that the expansion of the eucalyptus contributes to driving small-scale peasants off their land. Veracel has mainly purchased its land from large ranches, but these ranches may in their turn have appropriated land from peasants in various ways. Veracel's answer to this criticism is that the company's activities generate thousands of new employment opportunities. Calculations made by José Koopmans, however, demonstrate, that it is possible to question if there is a net gain of employment opportunities at all. The corporations do not account for calculations of how many employment opportunities which are lost when the ranches and agricultural plots are turned into eucalyptus plantations. The critics further argue that enormous sums of federal resources are invested in every employment opportunity at the plantations and the plants, while state credits to small-scale agriculture is severely neglected.

There is also a serious scarcity of available arable land for landless and small-scale peasants in Brazil and 4.5 million families in the countryside do not own any land. This lack of land has contributed to making the movement of landless peasants, MST, Brazil's largest and most dynamic social movement. The expansion of eucalyptus plantations contributes to aggravate the distorted ownership of land in Brazil. MST has occupied land that belong to Veracel, arguing that the plantations ought to be distributed among landless peasants.

The paper and pulp corporations' demand for land may raise prices of land substantially, thus making the ongoing land reform more costly since large landowners are compensated economically at market prices when their land is expropriated for distribution in the land reform.

These are the additional critical issues:

- ◆ Despite the fact that Veracel claims to have a program of preservation of Atlantic rainforest its plantations of eucalyptus cover vast areas which otherwise could have regenerated into native forest. Veracel also cuts down first stage rainforest, thus limiting the recovery of the rainforest. There have been incidents in which private landowners who plant eucalyptus, which is subsequently sold to Veracel, have cut down rainforest in order to plant eucalyptus instead.
- ◆ Informal statements made by high representatives of Veracel, Stora Enso and Aracruz, seem to indicate that the corporations have a hidden agenda, where the plans of expansion of their plantations are much more extensive than their official declarations imply. Calculations made by SwedWatch also gives reason to believe that Veracel and Aracruz may have to expand their territories more than they choose to admit, in order to satisfy the demands of their paper mills.
- ◆ Peasants whose land plots are adjacent to Veracel's plantations claim that the availability to water has diminished since the eucalyptus plantations were established. Veracel argues that these grievances are false. This claim, however, corresponds to the assertions made by peasants who live close to the properties of Aracruz and Bahia Sul.
- ◆ There also exists a clear democratic problem, since the paper and pulp companies exercise large formal and informal political influence on regional, state and federal level. The opposition to the paper and pulp corporations, which consists of a wide array of popular groups and organizations, has much weaker political representation and much less access to media.

Abbreviations

BNDES	The Brazilian Development Bank (formerly BNDE)
BRACELPA	The Brazilian Association of the Pulp and Paper Sector
CEPEDES	Research and Development Centre of the Extreme South of Bahia
CI	Conservation International
CIMI Equipe ES	The Indigenist Missionary Council of Espírito Santo
CPT	The Catholic organization for land reform and land studies
CRA	The Environment Resources Centre
ECF	Elemental Chlorine Free
EIA	Environment Impact Analysis
EIB	The European Investment Bank
FASE	Federation of Social and Educational Assistance Bodies
FSC	Forest Stewardship Council
GAMBA	The Environmental Group of Bahia
GPS	Global Positioning System
IBAMA	The Brazilian Institute of Environment and Renewable Natural Resources
IESB	Institute for Socio-Environmental Studies of Southern Bahia
INCRA	The National Institute of Colonization and Agrarian Reform
MST	The Movement Landless Workers
NIB	The Nordic Investment Bank
SINTICEL	The Union for the Pulp and Chemical Industries Workers
SETRAS	The state agency of labour and social action
SSNC	Swedish Society of Nature Conservation
TCF	Totally Chlorine Free
UESC	State University of Bahia Santa Cruz
UFBA	Federal University of Bahia
WRM	World Rainforest Movement

Interviews that were conducted during SwedWatch's fieldtrip

In April 2003, Måns Andersson and Örjan Bartholdson from SwedWatch, undertook a fieldtrip to the states of Bahia and Espírito Santo during two weeks, in order to make official interviews with local people, meet with local and regional organizations and with representatives of Veracel. Furthermore, they interviewed authority representatives and various researchers who are studying the effects of eucalyptus plantations and pulp production on the environment.

In the state of Bahia the following people were interviewed:

- ◆ Representatives from the Environment Resources Centre (CRA) in Bahia
- ◆ Representatives from the Landless Workers Movement (MST)
- ◆ Representatives from the organization of small-scale farmers, Terra Viva
- ◆ One representative from the Indigenist Missionary Council (CIMI)
- ◆ One representative from the Institute of Socio-environmental Studies (IESB)
- ◆ Representatives from the environmentalist group of Bahia (GAMBA)
- ◆ Representatives from The Research and Development Centre of the Extreme South of Bahia (CEPEDES)
- ◆ The superintendent of The National Institute of Colonization and Land Reform (INCRA) in Bahia
- ◆ Scientists from universities and research institutes of Salvador, Ilhéus and Santa Cruz
- ◆ Corporate representatives and employees from Veracel
- ◆ Several independent and MST associated farmers in southern Bahia and in the proximity of Veracel's plantations.

Interviews conducted in the state of Espírito Santo:

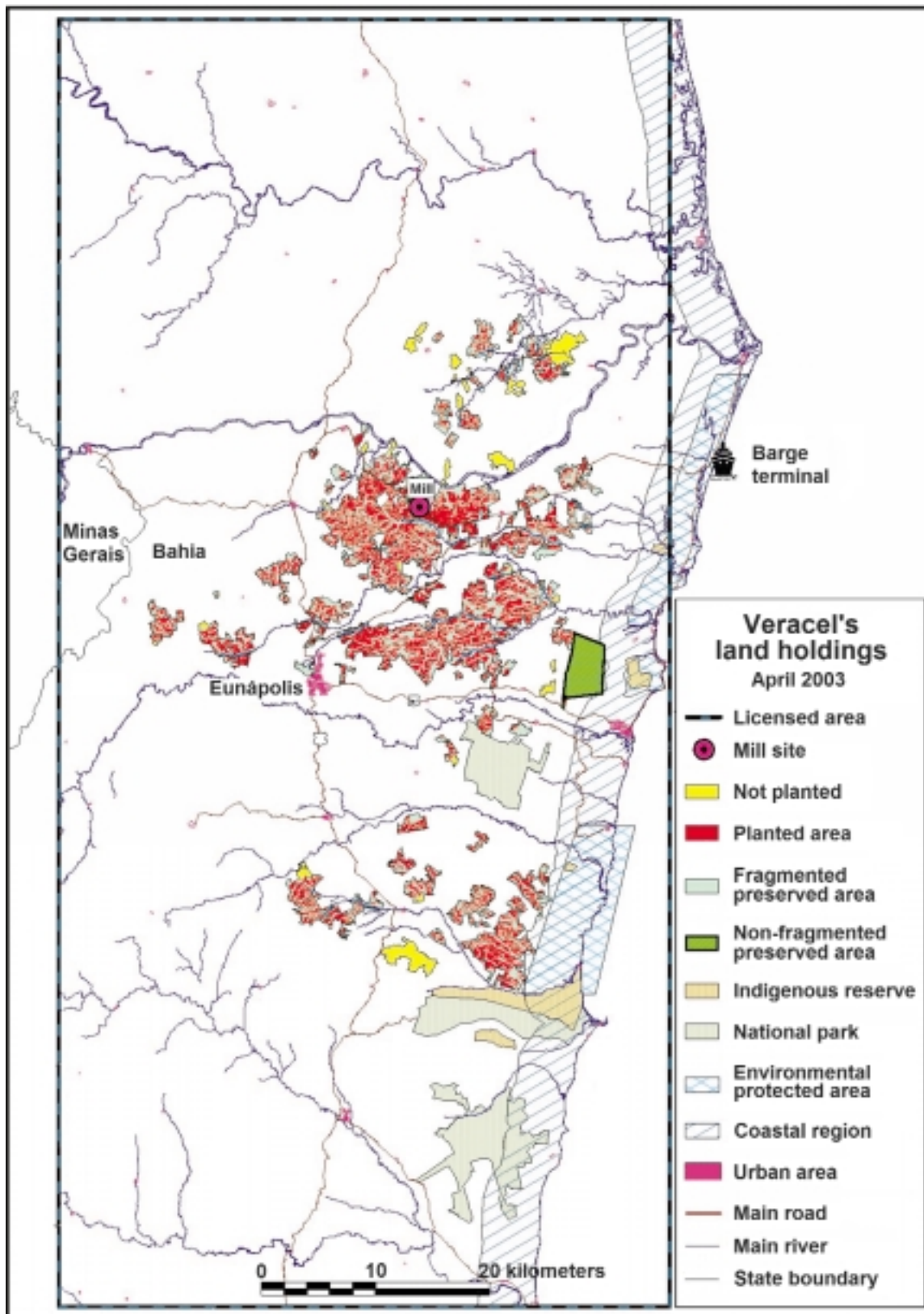
- ◆ Researchers from universities of Vitória
- ◆ One representative from the organization of small-scale farmers, MPA
- ◆ One representative from the union SINTICEL
- ◆ One spokesman of the Afro-Brazilian small-scale farmers
- ◆ Small-scale farmers who live in the proximity of Aracruz' pulp-mills
- ◆ Forestry workers at Aracruz
- ◆ Representatives from the human rights organization FASE

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Of all the natural forest that is lost every year 94 percent are located in the tropics. Throughout the world fast-growing wood plantations and pulp production constitute a major threat to the remaining tropical rainforests and to the local populations who depend on these forests to secure their livelihood. The United Nations Food and Agriculture Organization, FAO, estimates that the global growth rate of tree plantations amounts to 45 000 km² per year. Asia and South America accounts for 89 percent of the total growth. Brazil has, by far, most tree plantations in South America and the majority of the plantations are situated in the south eastern states.

This report focuses on the role the Swedish company Stora Enso and its subsidiary Veracel play in this area.



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