

# Encostas da Serra Geral

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Factsheet, Santa Catarina State, Brazil



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Factsheet – English



*The capacity of civil society organisations  
and their networks in community based  
environmental management*

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## Introduction to case studies in the CiVi.net project

One of the main aims of the CiVi.net project is to identify 'success stories' of local communities where solution strategies have been developed for the effective management of commonly used natural resources. Therefore the project has taken an action research and case study approach, selecting a number of 'original' case study regions, i.e. communities where solution strategies have already been worked out. For each of the selected original case study regions possible 'transfer' regions are discussed, though the final selection of transfer regions will be made upon the start of the project after conferring with the local stakeholders of the original region, the project's advisory board and the Commission.

More information on the CiVi.net project and the Spanish and Portuguese version of this file can be found on the website of the project: [www.civinet.eu](http://www.civinet.eu). Information on the case studies and transfer regions is available via [www.civinet.eu/english/79277/5/0/100](http://www.civinet.eu/english/79277/5/0/100)

## Encostas da Serra Geral

This report aims at presenting the main problems faced by the communities living in the Encostas da Serra Geral region, as part of the Civi.Net project scope. In order to present the main problems faced, we try to develop a timeline, pointing out the main historical development strategies and environmental policies which have influenced the region. The description is brief and general, far beyond the richness and complexity of the facts. However, we believe it is essential in order to understand the actual status quo of the region.

### Historical timeline and the main problems faced

The Encostas da Serra Geral is located in the Santa Catarina State, in the south of Brazil. It comprises ten municipalities: Santa Rosa de Lima, São Ludgero, Orleans, Lauro Muller, Pedras Grandes, Grão Pará, Gravatal, Rio Fortuna, São Martinho e Braço do Norte. Nevertheless, the focus of the civi.net Project is specifically in two municipalities: Santa Rosa de Lima and São Martinho. This region was mainly colonized in the second half of the 1800 century by immigrants coming from Germany and Italy. In that time the Brazilian government created a colonization company with the support of some European governments to foster land distribution to small holders in order to occupy the land and expulse the native indigenous as a way to "develop" the country. The small peasants coming from Europe received land from the government and very few support to develop agricultural activities.



Family of small farmers, descendants from Germans

The region where they were settled which now is the Encostas da Serra Geral, is extremely rich in terms of biodiversity. It is located between the coastal mountains and the Brazilian Southern Plateau, with altitudes varying from 200 up to 1000 meters. The area was originally fully covered by the Atlantic Forest *stricto sensu*, considered one of the ten top world hotspots of biodiversity. Nowadays less than 13% of it is left and fragmentation is the highest threat to the maintenance of species diversity and ecosystem services provision.

After the first settlements, in 1850's, agriculture became the main activity. Along the 1900 century these small farmers changed from completely peasants, selling only the exceeding production, to familiar agriculturists<sup>1</sup> with a very tight relation to the market demand.

In the following decades, much of the restrictions were poorly known by the farmers. At the same time the government and rural extension agencies were still fostering and providing subsidies for deforestation. This happened in many regions of Brazil, as well as in the Encostas da Serra Geral. With the National Constitution from 1988, the Atlantic Forest became a national patrimony and its use should be regulated by law. But only 16 years later the National Atlantic Forest Law was promulgated, restricting the cut of secondary and primary forests.



The Atlantic Forest remnants and the topological conditions in the Encostas da Serra

In the Encostas da Serra Geral, the environmental concern regarding forest conversion to different uses started mainly at the end of the 1980's, with command and control actions developed by the state and national environmental agencies. In this time, cattle raising for dairy production was starting to become an important source of income for many small farmers. However, with the increase of environmental monitoring, the expansion of pasture areas was restricted. These farmers were also facing problems due to low productivity. The wealthier ones were focusing in semi-confinement of cattle, with more dependency on higher investments. Pork production also became a very important source of income, stimulated by an integrated system with the installation of big enterprises as Sadia and Perdigão in the neighboring municipalities. In agriculture, tobacco plantation was also fostered as an economic option with a better income for many small farmers. Big companies as Souza Cruz, developed an integrated system, where the company provides the whole technological package to the farmers, who are supposed to plant and sell the tobacco to them for a certain price establish at the end of the harvest by the company. The tobacco enterprises and the rural extension agencies also started to foster eucalyptus and pine tree plantation as an alternative to native wood and as an income due to the proximity with the capital and important urban centers in the south.

The stimulation of all these agricultural activities, associated with investment of infra-structure in the region and the growing of market demand, resulted in the increase of environmental problems such as pollution of the rivers, air and below ground water, and caused the slowly loss of native forest to eucalyptus and other agricultural activities, besides generating many social problems.

Rural exodus and "masculinization" started to become a frequent problem for the communities in this region. With the proximity of the capital (around 150 km), the young people and women tend to leave the agricultural activities to the parents and move to the city in search of better work conditions and options. There is no research proven the relation of cancer increase in the region and the use of pesticides, but there are discussions going on taking this fact into consideration.

<sup>1</sup> The familiar agriculturists (or farmers) are defined by the federal law n° 11.326/2006 ([http://www.planalto.gov.br/ccivil\\_03/\\_ato2004-2006/2006/lei/l11326.htm](http://www.planalto.gov.br/ccivil_03/_ato2004-2006/2006/lei/l11326.htm)), and have access to different credits and programs.





Rivers with no permanent preservation areas, erosion and pollution by pesticides and animal waste



Loss of connectivity between fragments and desert pastures without trees



Pork intensive farms without appropriate manure treatment



Soil erosion due to overpasture and bad management of cattle

### Participatory project to involve local stakeholders and farmers

In the end of 1990's the Federal University of Santa Catarina (UFSC), through the Agrarian Science Center based in Florianópolis, started a small project with the participation of students from Agronomy course to tackle the increase of semi-confinement system and low productivity levels in the dairy production in the region. Professor Abdon Schmitt in partnership with other professors from UFSC and students brought to the Encostas da Serra Geral the "idea" of developing the management intensive grazing or the voisin system as an option to small farmers at the Encostas da Serra Geral.

The project started informally in 1998, with the support of some local stakeholders and the farmers interested on trying the experiment. The focus of the project was small farms (up to 20 hectares). The idea was very bad seen by most of the farmers as well as by the rural extension agency at that time. Nevertheless, it was accepted by some pioneer farmers in the region.

The process was completely participative. For each community, UFSC was presenting the idea and the ones willing to take part on the experiment should also do the investment on seeds, wire, posts, etc...all the materials required. Most of the farmers interested were badly judged in their own communities and normally they were trying one or two plots (paddocks) at a time.



Student working with the improvement of pasture in the voisin paddocks



Group of students with farmers after implementing the paddocks of voisin

Slowly the local mayor and different local stakeholders started to support the process, providing food, car and equipment to the students who were coming every two weeks during the weekend to the region to install the voisin paddocks and to promote meetings and present the system to different new communities. In less than 5 years the rural extension agency started to support the project. The group of UFSC was organized in the GPVoisin (Grupo Pastoreio Voisin) with a small room at the university to gather and organize the next actions of the project. In ten years more than 400 voisin projects were installed in the Encostas da Serra Geral with the help of EPAGRI (old ACARESC - state rural extension agency). Dairy production became one of the main sources of income for many families which were living before in a poverty threshold.

### Current status of the area and the project

Nowadays, many of the systems implemented maintained the original concept of the voisin system, but there is also part of the farmers which slowly started to use pesticides and different input to improve soil fertility. Such inputs compromise the ecological principles of the system and are now contributing to pollution of the water in the region. Besides that, the need of shade for the cattle in the paddocks became an increasing demand for the farmers, as the loss of milk production due to heat was clearly noticed by them.

Since 2007, EPAGRI is fostering the implementation of alien species with rapid growing as an alternative for shading the pasture. Eucalyptus is the most common species adopted by the farmers at the Encostas da Serra Geral. It is an important source of coal and has a consolidated market in the region. Nevertheless, the use of this and different alien species have influenced the loss of ethno botanical knowledge from these farmers. The importance of the native species is slowly being loss.



Early stage of a cluster with native species in a voisin paddock (8 açai palms + 4 different native species)



Eucalyptus shading in advanced stage – after 5 to 7 years the trees are cut

In 2011, the GPVoisin started a new project in the region in order to foster pasture shading with a cluster of native species. Besides the demand of shade, the project is looking at the recomposition of deforested areas along rivers and springs and discussing with the farmers the importance of native species. New researchers take part in this new project, as Professor Alfredo Fantini, from the Nucleus of Tropical Forests/UFSC, in cooperation with the Gund Institute (University of Vermont) from U.S.A. This project, designated “biodiversity rich silvopastoralism” is in very early stage and is happening concurrently with Civi.net.

Another important aspect is the recent approval of the New Forest Code (may 2012), substituting the one from 1965. This will bring the obligation of the small framers to reforest areas along rivers, streams and springs. In terms of connectivity and ecosystem services provision, there are important gains, but for small farmers with less than 20 hectares properties, the “loss of economical areas” can bring impacts to the families’ income.

Civi.net and the project Biodiversity Rich Silvopastoralism are the main activities going on in the region trying to understand economic and ecological problems faced, as well as fostering the discussion of new strategies for rural development in the area. Different problems can arise during our field research activities and many changes are expected, as our understanding of such problems and of the needs of these communities.

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The CiVi.net project aims to analyse, transfer and disseminate successful and sustainable community based solutions with regard to ecosystem service management in Latin America. The role of civil society organizations (CSOs) within these governance models is thereby at the core of the research.