

Case study: Economic and structural settlement changes and their consequences in the community of La Gamba, Golfo Dulce region

Estudio de caso: Cambios estructurales y económicos de la población y sus consecuencias en la comunidad La Gamba, región del Golfo Dulce

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Abstract: The community of La Gamba has experienced several problems concerning monocultural land use, unemployment and the supply of social services, as well as pressure caused by the increasing scarcity of natural resources. In terms of human-environmental interaction, the conflict between the conservation of biodiversity and the local population's dependence on natural resources is discussed from the formation of the settlement up to the year 2006.

Key words: monoculture, natural resources, human environmental interaction, conservation of biodiversity, dependence on resources.

Resumen: La Comunidad de La Gamba ha experimentado serios problemas relacionados al uso del suelo por monocultivo, al desempleo y a la cobertura de los servicios sociales, así como la presión causada por el creciente agotamiento de los recursos naturales. En base a la interacción hombre-medioambiente, se discute el conflicto entre la conservación de la biodiversidad y la dependencia de los recursos por parte de la población local, desde la ocupación inicial hasta el año 2006.

Palabras clave: monocultivo, recursos naturales, interacción hombre-medioambiente, conservación de la biodiversidad, dependencia de recursos.

Introduction

The changing structure and rôle of the agricultural sector and the development of regional sustainability has altered the dynamics of the human-environmental interaction in La Gamba. Diverse survival strategies and varying opinions about the conservation of nature are represented in the wide mixture of actors in the region. As a result of the belief that nature is merely a commodity and a resource, many conflicts occur during the inter-play between economic, ecological, and socio-cultural factors. The community of La Gamba serves thereby as a case study to illustrate the differing interests of actors in the local, national, and global trade communities.

The significant geographical features in the region and a historical overview of the sequence and causes of agricultural colonisation highlight and clarify important details that are essential to understanding the development of the cultural landscape in the peripheral

region of Golfo Dulce. A retrospective survey of land usage in the La Gamba community illuminates the history of the social and economic settlement from its beginning, through the influential banana boom of the United Fruit Company and later attempts to diversify, the subsequent governmental agricultural reform and its impacts, up to the present-day transition to sustainable regional development with its resulting conflicts.

Physical and geographic features in the region of study

Location

The La Gamba community (coordinates of the village center: 8°42'33"N-83°11'04"W) is located in the political and administrative districts Golfito and Guaycará in the Puntarenas Province. It is bordered to the north and west by the Parque Nacional Piedras Blancas, to the south and southeast by the Refugio de Vida Sil-



Fig. 1: Phases of economical and structural changes of settlement in La Gamba

vestre Golfito, and to the east by the Interamericana Sur. The territory makes up 2.460 ha and is comprised of the La Gamba, Río Bonito and La Bolsa settlements.

Natural features

La Gamba sits in the bottom of a valley on top of the Río Claro tectonic depression, where its land ranges from flat to an 8° slope. The soil consists of alluvial and colluvial deposits, which is typical for piedmont areas along the borders of the Río Bonito (MORA 1990). The erosive, tectonic landscape evokes the Fila Gamba, which had to make structural adjustments to its drainage system to account for geologic shifts and tectonic fractures. Traces of Nicoya and basalt complexes from the Cretaceous Period are particularly visible on the south face of the Fila Gamba (CHINCHILLA 1998). Small valley meanders carve the topographically young mountains with a maximum elevation of 1.220 metres.

The Golfo Dulce, as part of the 'tierra caliente' region, has an average rainfall of 5.891.6 mm a⁻¹ (observation period 1998-2003), with a maximum of 1.209 mm (09/2000), a mid-year temperature of 27.8°C and a relative humidity of 88.3% at the Tropenstation La Gamba and 97.7% inside in the forest (HUBER 2005, WEISENHOFER 2005). The consistently high temperature and rainfall create an intense chemical decomposition process on soils. Ultisols, inceptisols, and entisols are typical in the region of study (MAG & MIRENEN 1995, PAMPERL 2001).

Changes in the economic and settlement structures in the La Gamba community and their consequences

The development of the Esquinas district and the establishment of a loading port with an administrative centre in Golfito by the Banana Trust led to increased agricultural colonisation in the region's under-developed settlement structure. The La Gamba community was used for the short period from 1954 until 1961 as a

banana cultivation site. The subsequent departure of the Compañía Bananera caused widespread unemployment and emigration from the entire South Pacific region. As a result, many substantial social and economic changes took place within the region. In particular, this period saw expansion and advancement in the production of cocoa, rice, yucca, oil palms, lumber (gmelina, teak) and livestock. Today, Costa Rica is striving to create sustainable regional development in the Golfo Dulce region, while concentrating on the areas of conflict between economic interests, social equality, and ecological conservation.

Pioneer phase (1941-1953)

The period following the world economic crisis and population growth in the Meseta Central saw a constant increase in agricultural colonisation. Pioneers founded dispersed settlements and cultivated a subsistence economy based on slash-and-burn farming. Infrequent production surpluses, weak infrastructure and distance from markets were the significant factors that led to an almost complete isolation from the domestic market. They prevented a market-orientated approach to agricultural production and an expansion of productive land, which forced the settlers to expand in peripheral areas, as land ownership in the area was constantly changing due to squatters' rights (JONES & MORRISON 1952, BARAHONA 1953, SANDNER 1961). The pioneer phase was shaped by scattered, largely unregulated colonisation, which revealed the potential for the United Fruit Company as a global actor in the nascent enclave economy in the Pacific lowlands.

Phase of expansion (1954-1960)

A subsidiary of the U.F.Co., the Compañía Bananera attempted to overcome internal structural deficits and adapt to the local situation, as well as provide a basis for social modernisation and increased wealth by expanding economic growth (ALTENBURG 1992). As a result of the low restrictions on development granted by the Cortés-Chittenden Lease Contract, the market-ori-

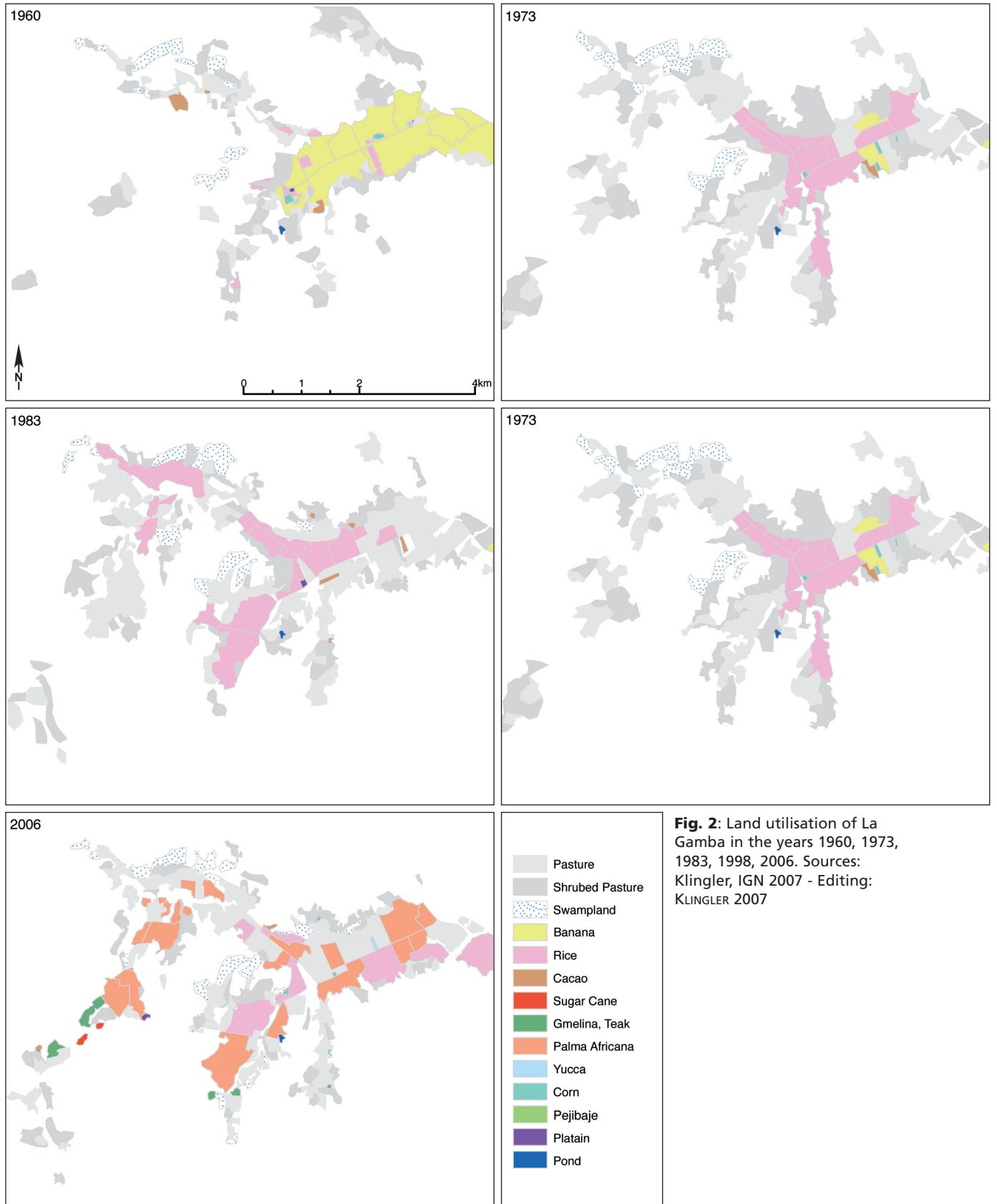


Fig. 2: Land utilisation of La Gamba in the years 1960, 1973, 1983, 1998, 2006. Sources: Klingler, IGN 2007 - Editing: KLINGLER 2007

entated agriculture sector initiated massive expansion of the regional infrastructure (railway lines, streets, port facilities in Golfito and Quepos), the creation of additional settlements, and the allotment of small plots of farmland. The expansion of cultivable land in Distrito Esquinas brought an extension of the railway line along the high traffic route of Palma Sur-Golfito-Laurel and led to the creation of a group settlement ('caserío') near the entrance of La Gamba. Owners of large estates operated large plantations with the help of 700-800 workers and day labourers, while cultivating their own gardens for private use. The subsequent colonisation occurred without regard for environmental protections, particularly regarding the valuable forests, and caused irreversible damage to the local ecosystem (MAY & PLAZA 1958, ROBINSON 1948). Additionally, a social structure was established between the powerful landowners, who were the employers of the banana plantations, and the agricultural workers who were dependent on them. Independent actor co-operations also formed at this time to campaign for workers' rights. This secondary phase of colonisation was led by a group of actors who were motivated mainly by short-term profits on consumptive resources. The Trust Corporation's supremacy reduced the government's influence and control in the region to a minimum.

Initial phase of diversification

After a seven-year production period, soil degradation, floods, crop diseases, low export revenues, and increasingly powerful unions led to an early abandonment of the plantation economy in La Gamba. The failure to base the economy on international market-orientated, cash crop production and the lack of agricultural reform led to unstable regional development and the collapse of La Gamba and in a broader sense, the South Pacific Region, which was plagued by devastating unemployment. A restructuring followed, which saw the transition from the export-orientated, internationally controlled banana plantation economy to an export-orientated rice and livestock economy, which was funded by investors at a national level (SPIELMANN 1969). Clearing occurred in La Gamba from Valle Bonito in the north to La Bolsa in the south to expand the area for pasture and rice cultivation (Fig. 2). The extraction of tropical timber became increasingly important economically, which led to considerable and uncontrolled slash-and-burn farming that undervalued natural resources and was accompanied by insufficient reforestation programs. The first success in combating this harmful clearing activity occurred with the establishment of the Parque Nacional de Corcovado in 1975 and the Reserva Forestal Golfo Dulce in 1978.

The local productivity in the region did not, however, adequately aid the unemployed and often homeless portion of the population. Government officials devoted to promoting equality in the disparate agricultural structure emerged as actors on the national level and also represented local workers and defended their rights. Settlement reform was subsidised by the government to support the agricultural export politics of the ITCO (Instituto de Tierras y Colonización) and created a situation where the local actors were dependent on the government.

Government agricultural reform phase (1978-1990)

The continuous reduction of plantation land in the Pacific lowlands particularly affected the previously important Golfito. An unyielding decline in the local trade economy and the community administration ensued. Harsh living conditions emerged in the agricultural reform colonies on the former plantations. A complex social structure emerged in the Golfito Canton, divided between subsistence farming, large livestock and rice cultivation companies, and agricultural cooperatives that sought to continue the cultivation of oil palms and bananas on the plantations (RAMÍREZ AVENDAÑO 1990).

The expansion of the Río Bonito und La Bolsa hamlets reflected the social fractures and structural heterogeneity in the production in these areas, as opposed to the conditions in the central La Gamba drainage basin (Fig. 2). On one hand, extensive livestock industry and rice cultivation, characterised by 'paternalismo', brought increased revenues and became part of the production of food crops in the national economy. On the other hand, the settlements on abandoned plantations were plagued with extreme poverty. The structure of small farms led to the predomination of subsistence farming, whereby the farmers had minimal financial capital and rarely achieved production surpluses. The production of cocoa remained the only cash crop, yet its importance declined due to high crop density and deficient market infrastructure. The expansion of large agricultural farms and companies also served to hamper attempts to develop a structure supporting small farmers, as these farmers were continually displaced and forced to move to isolated regions with little agricultural potential. The problem was exacerbated by rising property prices, lack of crop diversification, inefficient land use, low earning capacity, and insufficient education possibilities. The relationship between small farmers with minimal market integration and large farms or businesses with little contact to the regional economy became increasingly polarised. Furthermore, the expansion of pasture land and increased demand for timber caused

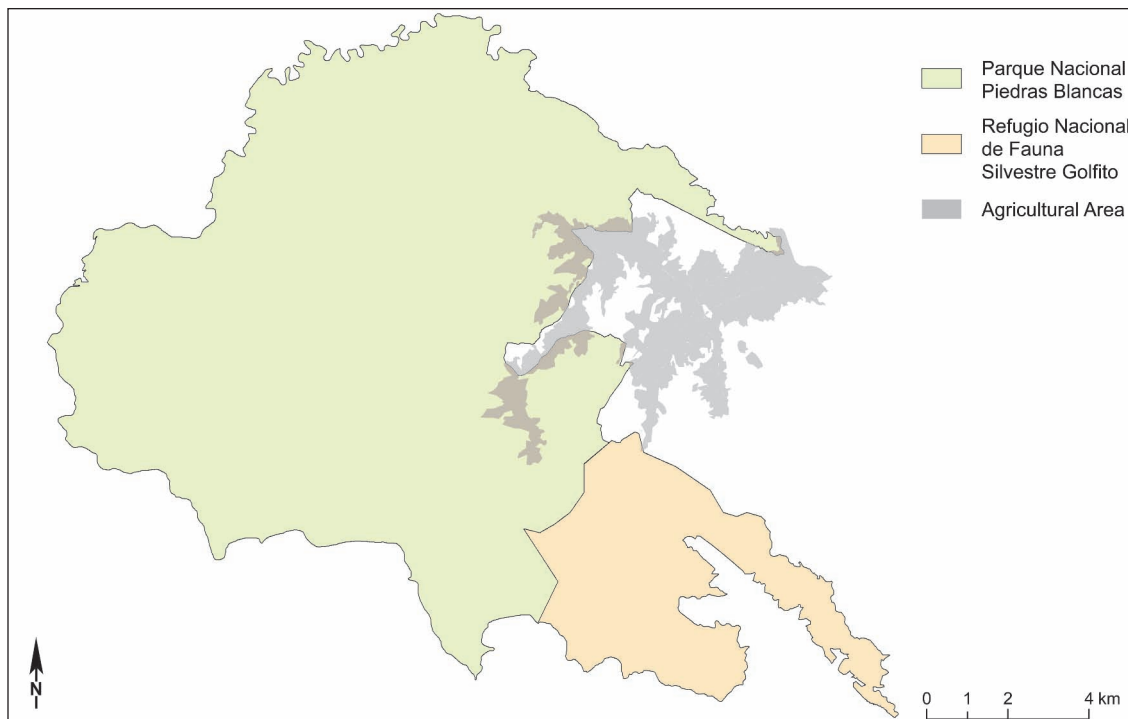


Fig. 3: Conflicts between rainforest conservancy and utilisation. Sources: Klingler, IGN 2005 - Editing: KLINGLER 2007

additional encroachment on the rainforest and its natural ecosystem, which produced substantial problems of soil erosion, nutrient depletion, and soil sealing.

The overdue agricultural reform was led by the IDA (Instituto Desarrollo Agrario) and facilitated the consolidation of the small farming sector, as well as the establishment of the Asentamiento Campesino La Gamba, which served as a communal actor group. The agricultural co-operative COOPROSUR was considered responsible for the implementation of regional development measures. Working together with the large landowners, it was determined that monocultures should be grown on large-scale plots of land and produced at competitive prices for the market. In order to decrease the gap in economic growth between the Valle Central and the peripheral Golfo Dulce region, the agricultural sector was elevated in importance and became the motor of the national economy. The Depósito Libre Comercial de Golfito free trade zone was created as a further local political tool to stimulate the local economy and increase tourism.

Phase of conflict (1991-1995)

The government's growth-orientated development policies and the constant demand for ecological resources had devastating impacts on the local ecosystem. For a considerable period, the negative effects of resource extraction, as well as increasing damage to the environment due to economic growth, was not explicitly discussed. Campaigns to protect the environment grew in the 1990s and created a counterbalance to the expansion-orientated economic policies of the mono-

cultures. The conservation of the natural ecosystem was reflected throughout the entire territory of Costa Rica. Wide areas of land, including those formerly used for crop production, became protected with the establishment of national parks, biological reserves, and game preserves, in which preservation of biodiversity was mandated. Protected resource areas and forest reserves were also created, in which only limited resource use was permitted (NUHN 1998).

Through the financing of the Parque Nacional Piedras Blancas, the Austrian Development Cooperation and the Association 'Regenwald der Österreicher' (RdÖ) are working in La Gamba as global actors for sustainable development with a focus on the conservation of ecosystems, the utilisation of region-specific potential, and the careful use of natural resources. In order to find an alternative to the exploitation and destruction of the rainforest while maintaining a long term approach to balancing and stabilising various economic, educational, and health factors within the community, the Esquinas Rainforest Lodge was installed as a model for ecotourism. Resettlement issues related to the foundation of national parks and inadequate participation in the integration of the village community, however, caused conflicts between rainforest protection and the utilisation of the resources in the rainforest (Fig. 3).

Transition phase to regional sustainability (1996-1999)

The emergence of the Costa Rican NGO Fundación Neotrópica increased infrastructure and basic initiatives and sought to provide a solution to the conflict between

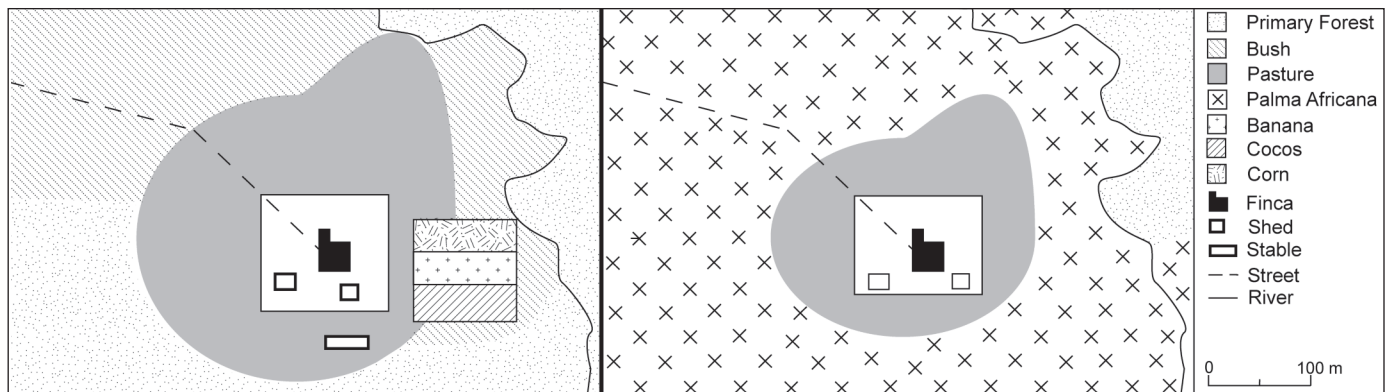


Fig. 4: Traditional finca based on subsistence farming versus plantation. Source & Editing: KLINGLER 2007

environmental conservation and local small farmers' attempts to survive. The poorly developed system of the agricultural production sector and restrictive local factors decreased the chances of further development of the agricultural sector and insufficiently provided for the population (Fig. 2). Significant attempts were made to establish ecotourism as the driving force of the regional economy in the future. An additional goal was to raise the local population's awareness with regard to sustainable interaction with the environment.

Phase of sustainable development versus international market orientation (2000-2006)

The current economic situation of both local types of farms shows a transition from subsistence farming to an export-orientated plantation economy. While traditional domestic farming still consists largely of personal gardens and a large portion of pastureland is used for beef, the plantation economy is expanding agricultural land use to a maximum level (Fig. 4). Two global actors are currently very influential in La Gamba. At present, the region is experiencing a dramatic increase in the growth of "palma africana" (*Elaeis guineensis*), an export-orientated monoculture. It can be seen as a successor to the banana and is being marketed by PALMATICA, a subsidiary of United Brands. In addition to the large strain imposed on the environment by the plantation economy, the recurrence of vertical dependence on export-orientated, multinational corporations is a grave problem.

The other influential factor in La Gamba is the attempt to strengthen the ecotourism industry with the goal of creating a viable alternative for regional development. Deficient tourism infrastructure and the minimal profits made by the village community itself on ecotourism do not provide an economically efficient alternative to traditional agriculture and, as a result, cannot be considered sustainable. Nonetheless, the initiatives of the RdÖ and the Fundación Neotrópica have made possible the creation of the local co-operatives (ASO-

PROBI, COOPEGAMBA) and committees, the expansion of basic infrastructure, and the increase of a sustainable environmental consciousness. The foundation of the Parque Nacional Piedras Blancas and the Refugio Nacional de Fauna Silvestre Golfito prevented the expansion of slash-and-burn farming for ecological reasons, as well as integrated secondary forests and degraded land areas. Current projects include reforestation efforts, the sowing of plants near the river, and the installation of a biological corridor, which all significantly increase the ecological value of the tropical rainforest.

Conclusion

The La Gamba sphere of influence and surrounding area currently faces a conflict between profit-orientated strategies for using natural resources and sustainable regional development. At the same time, the region is beset by high unemployment, insufficient educational opportunities, and a deficient infrastructure. Modernisation and globalisation are placing small farmers under ever-increasing pressure and are leading to a rise in their vulnerability. Primary care for families is becoming constantly more precarious with the combination of shrinking salaries and an increase in the cost of living. As a result, local actors are often forced to make unsustainable economic decisions in order to survive.

In all previous periods and phases, a large amount of heteronomy and an extreme power gap between global actors and the local population was noticeable. The initial objective of the RdÖ Project, achieving equality between ecological conservation of the plentiful tropical rainforest and local population's economic and social needs, could not be fully realised. Additionally, there is minimal potential for the local population and the agricultural cooperatives to attain a measure of power and initiate an alternative system of production that favours sustainable development. Instead, the traditional, vertical dependence of small farms on the world market continues to grow.

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