

The development of Altamira, before and after the construction of the Transamazônica¹

Ron Milder

Altamira up to the late 1960s

The town of Altamira, located on the Xingu, a tributary of the Amazon, existed for many years before the national road opening up the territory, the Transamazônica, came to run alongside the river. The foundation must be credited to the Jesuits. After the Portuguese had chased the Dutch from the Amazon region, they were the first to penetrate the tropical rainforest and started colonisation in the period 1625–1750 (Umbuzeiro 1983, 19). They brought the local Indigenous tribes together into communities, instructing them in the Christian faith and using them as labourers. They made a start in farming and set up small trading companies. Altamira was one of such communities.

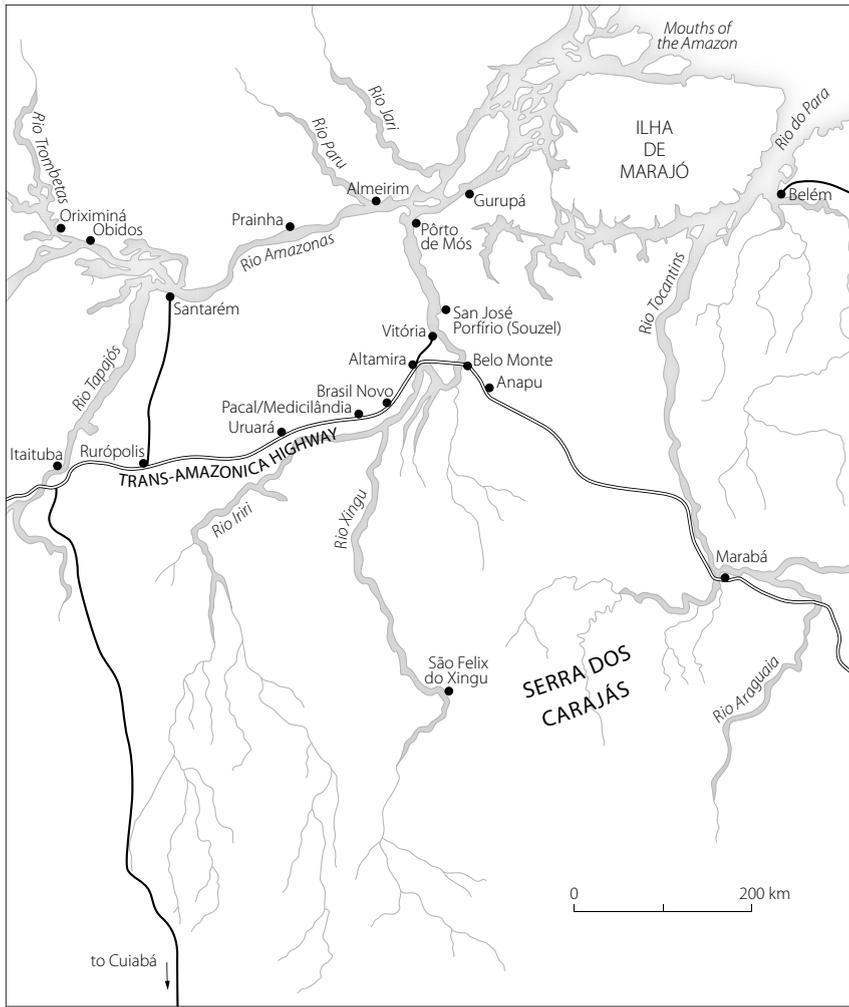
After the forced departure of the Jesuits from Brazil in 1758 and, therefore, also from the Amazon, the communities fell increasingly into decline, including Altamira. It was not until about 1870 that the settlement was revived when Capuchin Fathers and local Indigenous tribes established a land connection between Altamira and the lower Xingu. This allowed one to penetrate further upstream into the area of the Xingu without being hindered by the “Big Bend” with its numerous rapids.

Around the end of the nineteenth century, the distance was shortened by a new road, more or less corresponding to the current connection between Altamira and Vitória Port.¹³⁷ The shortening mainly benefited the traders, who at the time still monopolised the trade in rubber, Brazil nuts and hides from Souzel (farther downstream). As a result, Altamira was able to grow into a trading post of such great importance that, in 1912, it became an independent municipality. The “town” became even more important when rubber mining in the Xingu valley flourished. Local landowner and trader José Porfírio modernised the port of Vitória with a view to the rubber.

136 Based on Milder's master's thesis written in 1985/1986. Fieldwork was carried out in Altamira from August 1984 to February 1985.

137 The construction of this road came about in stages, because the abolition of slavery in 1888 meant that the supply of labour immediately dried up (Umbuzeiro 1983, 20).

Figure 1. General reference map of Altamira and its region



Source: Elaboration by author.

The recession of the 1930s and the crisis in rubber gathering also sent Altamira's economy into crisis. Altamira suffered the fate of so many other Amazonian river towns whose economic development depended on the extra-regional demand for extractive products. High demand led to an influx of labour from elsewhere (mostly *nordestinos*). They earned little. The people who really profited were the local traders and the export firms based in Belém and Manaus who were only interested in favourable transport options (a navigable river and suitable ports). As soon as foreign demand for extractives fell sharply, the entire economy, in the absence of diversity, reverted to the level of local self-sufficiency. The traders stopped buying rubber and moved elsewhere or started something else. And the workers who had been attracted by the boom abandoned rubber collection, moved away or continued to live on the spot and started subsistence farming.

During World War II, when the Allies had an urgent need for rubber, the rubber tap started running again. The government took an active stance and established a special credit bank, the predecessor of the Banco da Amazônia S.A. For Altamira, the revival led to the establishment of a government health post and improvements to the road link with Vitória. This new “rubber boom” was followed in the course of the 1960s by a lively trade in animals and skins. Many rubber tappers then exchanged their work for that of hunter.

In the 1960s, the one-sided character of the rural economy was somewhat broken. The agricultural sector started to grow to meet the growing need for food in the regional capital Belém. In the region with fertile *terra roxa* soils, west of Altamira, arable fields gave way to pastures. This region had become accessible through the expansion of the local road network. The local government began by setting up a modest colonisation project and trying to get a cooperative off the ground – with little success.¹³⁸ However, there was no question of a spectacular expansion of agro-pastoral activity. The local market for arable products (not being grains) was too limited and the facilities for sales, almost exclusively aimed at storage and transport, were far from sufficient. Agriculture also remained at a low technical level.

Sales, almost exclusively oriented towards Belém, consisted of rubber, Brazil nuts, hides, rice and wood. Agriculture, which took advantage of the fertile *terra roxa* soils in the area surrounding the town, contributed 94% of the total value of production in the municipality. The largest branch was extraction, with 34% of the total production value. In that year, 1968, the trade in animals and skins took off and was estimated to account for three quarters of this. In addition to agriculture, trade played an important role in the economy, especially in Altamira itself (SERFHAU/Ministerio do Interior 1970).

Even before the Transamazônica was built, Altamira was the most important place in the Xingu valley. It was the collection centre of rubber, Brazil nuts and other products collected in the rainforest that were transported via a short and good road connection to the port of Vitória, located at the point where the Xingu River was still navigable. From there they were shipped to Belém, the export port at the mouth of the Amazon. All important administrative functions were concentrated in the town and, from 1948, it was also the seat of the diocese. This explains why there were already a hospital and a secondary school in Altamira.

This diversification of the local economy in the 1960s attracted migrants and accelerated population growth: the rate of growth was above average for the entire state of Pará. In 1960, the municipality of Altamira had 12 100 inhabitants and the urban zone 3210; in 1970 there were 14 000 and 7000 respectively (Matznetter 1981, 114).

138 The cooperative was in debt to the bank and was therefore unable to provide credit to its members.

Altamira in 1970¹³⁹

By 1970, Altamira had a modest secondary sector in terms of both production value (6%) and employment (6.6%).¹⁴⁰ Of the fifteen companies, eight were active in the food sector (including a number of bakeries). There were also three sawmills, two brick-yards, one rice huller and one coffee roaster.¹⁴¹ As far as private initiatives are concerned, the contribution of the diocese should certainly not go unmentioned: Altamira owed this to a sawmill and a printing works. The main problems faced by the industrial sector at the time were the high transport costs for the supply of raw materials and the lack of specialised labour.

Table 1. The labor force aged ten years and older in 1970 and 1980 classified by sector

Sector	1970		1980	
	Abs.	%	Abs.	%
Primary sector	3332	73.7	3797	61.1
Secondary sector	297	6.6	103	17.8
Tertiary sector	890	19.7	1311	21.1
Total	4519	100	6211	100
% of total population	29.4		27.6	

In the tertiary sector, especially commerce, retail sales dominated businesses that usually sold all kinds of goods for daily living. In addition, Altamira had two wholesale stores, one petrol station and a few specialist stores (household appliances). A small number of merchants, who possessed a boat, monopolised the sales market; they arranged the transport farther upstream.

At the time, Altamira had two bank branches. The BASA (Banco da Amazonia S.A.) had established itself to support rubber extraction and the Banco do Brasil opened a branch in 1965 to help develop the fledgling agro-pastoral sector.

In the field of education, Altamira was fortunate to have the presence of a secondary school (*do 2^{do} grau*), founded by the local sisters. However, it was visited only by the children of the elite, for whom it was a springboard to university. For the majority of the local population, admission costs were too high a barrier. The other educational facilities were inadequate. The interior also suffered from a shortage of teachers.

The health care facilities were limited to a post of the Serviço da Saúde de Pará (SESP) and the hospital set up by the diocese (25 beds). A large part of the population drew on their own resources.

Even before the Transamazônica reached Altamira, it already had some infrastructure. In Vitória it had a well-equipped harbour and the town itself had a small harbour without a quay, from which the connections with the interior were maintained. The

139 Data taken from the SERFHAU report on the municipality of Altamira (SERFHAU/Ministério do Interior 1970).

140 Primary sector: 73.7%; tertiary sector: 19.7% (SEPLAN 1980, part 1: Perfil Municipal).

141 A coffee roaster and a rice huller had already been operating in Altamira for several decades; the latter initially had to bring in the rice from elsewhere (Umbuzeiro 1983, 73 f.).

other connections with the outside world were limited to a small airport, a radio station and a telephone exchange.

The water supply network, which had been installed a few years earlier, was not functioning properly. Most residents still had to make do with wells (*poços*). In 1970, the state electricity company CELPA installed an electricity grid and a small “plant” that ran on diesel oil. There was no sewage system. The streets were not paved and most of the houses were built of clay and wood (except those in the centre).

From the social composition of the population it could be concluded that, in around 1970, Altamira did not yet have such a sharp social stratification as it would later on. The independent professionals had the highest status. They owned land and cargo boats and were involved in trade, especially with the interior. At that time it was not yet possible to speak of a powerful group of traders and entrepreneurs or of a large number of officials.

Changes due to the construction of the Transamazônica

The construction of the Transamazônica, in 1971–1972, gave Altamira, hitherto only accessible by river, a direct connection by land with other parts of Brazil and a whole new period of development began. Simultaneously with the construction, the Federal government started a project in the area of Altamira, as well as near Itaituba and Marabá, for the assisted settlement of landless farmers and agricultural workers who no longer had land and work elsewhere in Brazil. This colonisation project was discussed in Part 2 of this book. In the second half of the 1970s, Altamira became one of the development centres of the state of Pará in the Federal government's development strategy. Commercial activity then grew explosively, as did construction activity. The number of government institutions grew significantly and migrants poured in from all parts of Brazil. The emergence of export cultures such as cocoa, pepper and sugar cane and extensive livestock farming led to further expansion and diversification of the commercial and service sectors and the emergence of new industrial sectors. Altamira turned into a “boom town,” underwent a major metamorphosis in a short time and became the informal capital of the Transamazônica.

The construction work, not only for the road, but also for the housing for *colonos* and civil servants, caused a boom in the commercial and industrial sector. The industrial sector was enriched with two new brick factories, one in Altamira itself, the other along the Transamazônica (Umbuzeiron 1983, 74). The number of commercial establishments tripled in one year.¹⁴² Traders in building materials and the retail trade, in particular, benefited from the construction boom. A number of traders were attracted by the new market that had now been opened up and from the direct supply channels from the Centro-Sul. They bought a piece of land for a pittance and started to set up wholesale stores in food and building materials. Many made a substantial profit during the construction boom and moved elsewhere after the boom had subsided. A

142 131 in 1971, 337 branches a year later. After the heyday of the construction boom, the commercial sector would also contract somewhat. But in 1975 the municipality of Altamira still numbered 261 businesses with 600 employees (SERFHAU/Ministerio do Interior 1970; IBGE 1976a).

few merchants remained in Altamira from then on and managed to gradually expand their holdings and not just wholesalers.¹⁴³

Photo 15. One of the older roads seen in the direction of the cathedral (1985)¹⁴⁴



Photo 16. Houses built for the INCRA staff (1985)



143 They had interests in commercial buildings and apartments, hotels and restaurants; one of them controlled the distribution of oil and petrol.

144 Photos by Ron Milder.

The retail trade expanded significantly. The newly arrived government officials and tradespeople created such a rapidly growing need for daily foodstuffs that the local food supply could not cope and supplies from Belém and São Paulo became necessary.¹⁴⁵ This increased the cost of living, but prices did not reach such exorbitant levels as in the isolated traditional riverine communities, where the local trader ruled. As more business was added in a particular industry, prices even started to fall. The price level for crops from the region itself also fell after canned foods from the Centro-Sul started to flood the market. The collapse of the construction boom after a few years brought the death blow to specialised businesses. However, the *secos e molhados* shops, with their varied assortment, managed to hold their own.¹⁴⁶ These stores sourced their food as much as possible from *colonos*, who bought items from them, whether on credit or not.¹⁴⁷ The owners could keep their heads above water by themselves and also buy on credit and respond to specific needs of the moment.¹⁴⁸

The companies and institutions established in Altamira not only fulfilled a function for the town, but also had a nurturing function for the area beyond. Altamira's sphere of influence extended from 250 km towards Itaituba to 220 km towards Marabá, taking the Transamazônica as the east-west axis. The region thus defined corresponded more or less to the district of Altamira as covered by the Comissão Executiva do Plano de Recuperação Econômica-Rural da Lavoura Cacaueira (CEPLAC) and the Empresa de Assistência Técnica e Extensão Rural (EMATER). As for the north-south direction, the sphere of influence extended at least as far as Porto de Mós (northwards) and São Felix do Xingu (southwards), with the Xingu River as the axis, at least as based on the catchment area of the Altamira-based consumer durables stores. However, the borders were less sharp here, because Porto de Mós was also supplied via the Amazon River and because São Felix do Xingu got a direct road connection with the Belém–Brasília road in 1982.

Another notable change was the arrival of a number of Federal (and other) government agencies to deal with regional development. Altamira became the seat of the coordination centre of the Instituto Nacional de Colonização e Reforma Agrária (INCRA) for the colonisation projects along the Transamazônica. A large number of tasks were entrusted to this institution. It had to demarcate and subdivide the public lands; select suitable farmers; build homes for the settlers; distribute seeds and other production supplies. Even the sale of production surpluses would be handled by INCRA. The lending was arranged together with the Banco do Brasil.

The INCRA remained in Altamira until 1976.¹⁴⁹ In that year it was moved to Brasil Novo, located 50 km further west. After the failure of the small-scale colonisation projects, INCRA limited its range of tasks to the demarcation and allotment of Federal

145 At the same time, some "luxury" food crops, such as beans, found their way into outlets in the Centro-Sul, where such crops were more expensive, as one city councilor told me.

146 *Secos e molhados* (literally: dry and wet) are mini-grocery-cum-department stores. The information in the main text is taken from interviews with two such shops

147 Buying on credit was essential in this region, given the declining turnover in the rainy months; a number of *travessões* (side roads) then became impassable.

148 An owner of a *secos e molhados*, in 1975, started selling hand tools for prospectors in 1980. At the time it was the best selling part of its range.

149 Since then, this coordination centre has had the official tasks of maintaining and opening new *travessões*, the administrative administration of the *agrovilas* and Brasil Novo; and the distribution of *lotes* among the newcoming migrants.

lands and the selection of settlers. A case like the transport of the produced food crops was henceforth left to private individuals. The INCRA also divested the sugar cane processing factory along the Transamazônica.

The regional development body for Amazônia, the Superintendência do Desenvolvimento da Amazônia (SUDAM), also had a branch in Altamira.¹⁵⁰ Livestock, arable, commercial timber and mining companies had to strengthen the regional economy with support from SUDAM. Altamira also became a regional focal point of EMATER-Pará.¹⁵¹ From the beginning, this agency has been concerned with the dissemination of new technical applications, seed varieties and other means of production among the settlers. It also provided technical assistance and acted as an intermediary at the Federal banks for the financial support of certain cultures. EMATER started expanding pepper and coffee production as early as 1972.

The opening up of the region meant that huge areas of virgin land became accessible. That attracted migrants from all over the world to Altamira. As a result, two years after the start of the construction boom, the town had a population twice as large as in 1970: 7000 in 1970 and 12–13 000 in 1972 (Matznetter 1981, 114).

Polamazônia. Large scale and privatisation (1974–1980)

In the mid-1970s, a switch took place in Federal development policy. In the Second National Development Plan, the Amazon region was assigned the role of exporter of meat, cocoa, pepper, sugar cane, timber and minerals and ores. In the plan, a clear choice was made for rational occupation by large and medium-sized capital-intensive companies, both in the livestock sector and for the production of agricultural crops. Thousands of hectares of land at once were given to Brazilian entrepreneurs and multinationals. In order to attract private investors to these sectors, the public investment needed to modernise the infrastructure was concentrated at a limited number of development poles (Programa Polamazônia). The Altamira/Transamazônica region was also declared a development pole.

Altamira went through a brief period of stagnation in the mid-1970s due to a decline in public investment. Small-scale colonisation projects were given less priority in Federal development policy after 1974 and, moreover, the focus of migration flows shifted to other areas, such as Rondônia, which in 1976 had got a direct connection with the Centro-Sul. At the end of the 1970s, however, the trend turned for the better, as new growth impulses emerged, thanks to Polamazônia.

First of all, the asphaltting of the Belém–Brasília road provided a better quality connection with central and southeastern Brazil. In addition, the main ports on the rivers were equipped with more modern facilities, thanks to the government's efforts to stimulate river transport and reduce road transport, which had become more expensive. The port of Vitória was also modernised.

¹⁵⁰ Closed in 1985 under pressure from spending cuts.

¹⁵¹ EMATER's Altamira district comprised five sites: one in Altamira itself and the others along the Transamazônica; in Anapu (Km 180 east of Altamira), Brasil Novo (Km 54 west), Nova Fronteira (Km 80) and Uruara (Km 180).

Altamira also began to reap the benefits of the promised investments from the Polamazonia programme. There was a new airfield; a more modern water supply network, new barracks, a slaughterhouse and a municipal public market. The main streets were paved.¹⁵² All kinds of government institutions, such as the Federal banks, the electricity company and the state hospital, were given more spacious housing. New institutions such as CEPLAC (serving cocoa cultivation) and the Instituto Brasileiro de Desenvolvimento Florestal (IBDF), which was engaged in forestry and reforestation, were established in Altamira. A department of the Bureau of Statistics (IBGE) and various “clubs” of entrepreneurs (including Lions) were established.

A third growth impulse came from the large timber and mining companies. They formed new markets for retail trade and services (repair). The large companies provided considerable employment for the local population. Tertiary activity benefited from the emerging middle class in the rural and urban environment.

Lastly, general population growth stimulated development. The flow of migrants increased again, this time mainly from the Centro-Sul. According to official figures, Altamira had 19 400 inhabitants in 1978; according to local sources, the number was closer to 25 000, a doubling since 1971.

From the second half of the 1970s, Altamira showed a particular growth in those functional activities linked to the regional economy, especially in the sectors that emerged within the framework of Polamazônia. We discuss successively the Federal institutions and banks, the private service institutions, the suppliers of production supplies, the commercial firms, the private banks and the industrial sector.

The Federal government institutions located in Altamira were faced with new tasks thanks to the changed government policy and the aforementioned developments. This includes the Federal banks. Some examples:

CEPLAC became responsible for expanding commercial cocoa farming and was to supply seed, fertiliser and other production supplies, provide technical guidance and provide agricultural education at subsidised prices.

The Empresa Brasileira de Pesquisa Agropecuária de Pará (EMBRAPA) set up a separate research department in Altamira. By working on seed varieties adapted to local climate conditions, this government agency hoped to increase the productivity of food crops and export cultures.

EMATER started supplying fertilisers to pepper producers and brokered credit applications. In the 1980s the institution began distributing seed and fertiliser for the cultivation of coffee, guaraná and cotton (the latter since 1984).

The tasks of the INCRA decreased as a result of the changed government policy. It was now concerned only with regulating land-ownership relations and no longer with the preparation, implementation and supervision of small-scale colonisation projects.¹⁵³

The Federal banks, Banco de Amazônia S.A.A and Banco do Brasil, received the necessary financial resources from the Federal government and were expected to dis-

152 All the municipalities through which the Transamazônica ran were declared National Security Areas in 1970. This meant, among other things, that the mayor was directly appointed by the governor of the state rather than elected.

153 The sugar cane processing factory in Pacal (92 km west of Altamira) had also passed into private hands during the 1970s.

tribute them among the various economic sectors in accordance with the guidelines set out in from government policy.¹⁵⁴ In practice, this meant that the banks were not given any leeway for additional support measures. This was possible only if they used their own resources for this. The Banco do Brasil, for example, had its own support programme for rubber, mining and local infrastructure since 1984.

Export crops and livestock have benefited most from the credit programme for the region.¹⁵⁵ The Banco do Brasil had opened a separate branch in the centre of the pepper, cocoa and sugar cane production area. Of the sawmills, only the export-oriented companies were supported, because only in these were production stable and sales assured.

The Federal banks were also involved in the marketing and processing of “national” food crops such as rice and maize. They subsidised the use of pre-processing installations, while the alternative energy supply was not neglected either.¹⁵⁶ Production costs had to be kept as low as possible and the quality of the harvest had to be improved.

The majority of government agency and Federal bank personnel had been brought in from elsewhere. They enjoyed certain privileges in Altamira in the areas of housing and health care.¹⁵⁷

Of the private service institutions, mention should be made of PLANTERRA, an agency established in 1978 that made production plans for individual companies in the livestock sector, pepper, sugar cane and guarana cultivation. The office was located in Altamira and was established because there was an EMATER subsidiary and because of the large number of bids from (potential) clients. PLANTERRA also had a branch in the centre of the cocoa, pepper and sugar cane production area. Another private institution was the engineering company CNEC, which was investigating the technical possibilities of a hydroelectric power station on the Xingu River.

The number of private firms that supplied agricultural means of production only began to increase in the years 1977–1978 after a number of rural cooperatives that previously took care of deliveries, had gone bankrupt.¹⁵⁸ One of the firms was attracted to the flourishing pepper culture and livestock farming. At that time, the pepper producers still used large amounts of fertilisers and pesticides. Later they would switch to natural fertilisers, because the costs of fertilisers were too high.

The three specialist shops for motor cycles/chainsaws, set up by managers from Southern Brazil, met 90% of the need.¹⁵⁹ Their catchment area stretched for 200 km

154 The Federal government had a 51% majority stake in Banco do Brasil; the remaining 49% were the bank's own resources. In 1985 a study was underway to privatise the bank.

155 Animal husbandry was an attractive sector for a policy aimed at rapid occupation. Investing in livestock farming was beneficial for the bank because the investments could be recouped in the short term (on average after four years).

156 With regard to the alternative energy supply, I am referring to the introduction of mini-distillers for alcohol and a gas installation that ran on faeces.

157 Example: the Federal banks had their own houses and recreational facilities; CEPLAC paid part of the health care costs for its employees and had its own loan fund. At some shops one could buy on credit.

158 The information below is based on interviews with two businesses in agricultural inputs and one that dealt in engines and chainsaws.

159 In the southern states (particularly Paraná) the growth prospects had diminished to a minimum due to continued deforestation and sharper competition.

along the Transamazonica.¹⁶⁰ One of the businesses, started in 1977, had also branches in Itaituba, Santarém and in the Serra Pelada, the gold miners' camp. They supplied to logging companies, brickworks, sawmills, furniture makers and gold mining (vessels and machines). The business in question prospered so well that, in the 1980s, the total business area was increased. At that time, the company had a separate repair shop on the outskirts of the city and even owned its own trucks and employed a number of drivers. Although it belonged to one of the most flourishing branches in the commercial sector, this company also had to deal with declining sales during the rainy season. Main and side roads then became impassable, making Altamira difficult to reach for the rural population. Construction and gold mining were virtually at a standstill. Moreover, at around that time the purchasing power of the rural population was at its lowest, as virtually nothing was harvested and sold.

It was easy to deduce from the composition of the goods package of these cases which sectors of the economy were doing well at the time. For the suppliers of agricultural inputs, this included dairy farming and cheese production. For the motorcycle specialist, these were mainly gold mining and alternative energy supplies.¹⁶¹ The first candidates for machinery in the field of dairy and alternative energy were the producers and *fazendeiros*; the commercial dairy sector was mainly a matter for *fazendeiros*.

The specialist shops visited in agricultural means of production were the organisations EMATER and EMBRAPA engaged in the dissemination of new seed varieties and other innovations.¹⁶²

In the marketing sphere, too, cooperatives made way for private trading firms in the second half of the 1970s. The number started to increase only when both production and price levels of rice and cocoa went up. As far as cocoa is concerned, this was mainly after 1981. In 1984 there were fifteen cocoa and pepper buying firms, of which at least six were registered. The firms also traded in maize, beans and Brazil nuts. As for the food crops rice and maize, they took over part of the market from the government buying body, the Companhia Brasileira de Armazenamento (CIBRAZEM). How much that was always depended on the difference between the officially fixed minimum price and the price on the free market. As a rule, the trading companies that bought grains also had a rice huller; the processed rice was sold on the local market or to traders from other regions. CIBRAZEM supplied to Belém, for the urban food supply there, but also to São Paulo and Rio de Janeiro.¹⁶³ The better quality pepper and cocoa found their way to the export companies in Belém. The lower quality cocoa was sold on to domestic industries. One of the largest trading firms in Altamira also planned to purchase and process cotton.

COOPERFRON, a private cooperative founded in 1973, was threatened with the same fate as the other cooperatives in the early 1980s. The cost of selling products was

160 Volbeda regarded this industry as one of the activities of great importance for the opening up of a frontier. In this case, the clearing of the rainforest. As a frontier consolidates, companies in the industry will become more focused on machines (Volbeda 1984, 228 and 238).

161 The specialist shops supplied water pumps and suction systems.

162 In the early stages of a frontier, such specialty stores usually supply inputs for deforestation and construction (roads and commercial buildings). In a consolidated frontier, these matters are involved in the further development of the agricultural economy (Volbeda 1984, 237 f.).

163 Altamira has traditionally been a supplier of rice to other regions.

high due to the lack of local infrastructure, there was a lack of equity capital and the *colonos* with their different social backgrounds were difficult to organise, according to officials from EMATER and the Banco do Brasil. EMATER reorganised the cooperative. In 1985, COOPERFRON again had a number of sales points in villages along the Transamazônica for the sale of foodstuffs and agricultural production supplies at a reduced price.

Of the six private banks that Altamira had in the mid-1980s, four had been added after 1978.¹⁶⁴ They were particularly attracted by the growing urban and agricultural middle class and the expanding urban commercial sector. The Federal banks stimulated the development of infrastructure with their loans and helped to start up new companies. The private banks, on the other hand, limited themselves to subsidising already existing profitable agricultural and commercial enterprises.¹⁶⁵ The bank the author visited (Bradesco) also had a branch in Pacal, in the centre of the sugar cane, cocoa and pepper producing zone, 90 km west of Altamira.

While the rural environment managed to attract a number of regionally-powered mining and logging companies, the industrial firms present in Altamira had mostly gone no further than supplying the local market, which was very small. Another problem was the high cost of energy supply and transport. Large-scale production was therefore difficult to achieve. The majority of industrial firms fell under the “mini” and “small” category.¹⁶⁶ They were not officially registered and therefore paid no tax. A number of important industries grew and fell according to the economic situation in the primary sector and the construction industry.

Good examples of the situation of industry in Altamira were the sawmills/woodworking and furniture factories.¹⁶⁷

The construction boom of the years 1970–1972 also brought a partial revival of the wood processing with it, but when the boom was over, it took a number of sawmills.¹⁶⁸ As in commerce, most owners were out to get rich as quickly as possible, close the business and start something else. What also often happened was that the owner closed his business at the end of the dry season, fired the workers and then opened a new business after the rainy season.

In the second half of the seventies new sawmills were built. They were set up by successful equity farmers or timber traders from the Southern states, where continued deforestation and increased competition had greatly reduced the prospects for growth. Presumably, the large-scale deforestation that preceded the establishment of livestock farms had opened up new perspectives. Favorable financing options and low interest rates also played a role, for example, in the purchase of land.

164 Of the private banks, I spoke only to the Bradesco branch manager.

165 I was also aware of one bank that dealt in artificial insemination on their own fazendas.

166 The line between “mini” and “small” was based on the number of ORTN (*Obrigações Reajústaveis do Tesouro Nacional*), expressing the annual “faturamento.”

167 Although the cabinet-making in the region had a traditional character, it is treated here as industry, according to the statistical sources. The differences between sawmills/woodworkers on the one hand and furniture makers on the other will be accentuated, where relevant. Wood processing was the most important industrial sector in terms of employment (in 1978–1979: 47% of industrial employment; data from F.I.E.P.A.).

168 Sawmills are usually directly involved in the opening of a frontier. In the Altamira region, however, timber extraction did not reach such a high level, because of the high supply costs.

Most of the local sawmills were small and unregistered.¹⁶⁹ The small businesses ran on a limited amount of their own capital and had a highly variable turnover because they were highly dependent on the construction industry, which almost came to a standstill during the rainy season. In the rainy months, the companies worked below their capacity and also employed fewer people. The entrepreneurs were then forced to live on their wood stocks, as transport was almost impossible. In contrast to the large companies, which produced for export, the small companies did not have good means of transport and or skilled workers. For the banks, their financing entailed too much risk; production and sales were too unstable. Only the large export-oriented companies received loans to finance fixed capital (including machinery), according to the BASA branch manager. The small sawmills tried to keep their heads above water by making a deal with *fazendeiros* or *colonos* for their timber supply.^{170,171} In order to reduce production costs, the business owners sought to integrate cabinetmaking and sawmill into one firm. Two of the four carpenters visited already had a sawing installation and the other two were planning to buy one.

The furniture makers (who worked to order) had to depend mainly on certain specialisations, for which a regular customer base could be found among traders, construction companies or *fazendeiros*.¹⁷² This was because they were starting to experience more competition from specialist shops that sold ready-made furniture with the option of paying in instalments.

Other industries visited had to have a specific customer base, partly outside Altamira, or specific fast-growing rural economic activities, such as gold mining and rubber culture. An example of the former was an aluminum ware factory that specialised in aluminum vehicle number plates.

Finally, an example of a company with highly mechanised operations, which had established itself in Altamira with government support, namely a modern coffee roaster opened in 1981, which partly ran on coffee beans supplied from the Centro-Sul. After just a few years, the company was able to expand the number of employees and even employed its own drivers. The modern equipment came from São Paulo. The government granted a guarantee subsidy in case sales declined too much. Altamira was the only sales market. The other coffee roasters suffered a languishing existence.

According to data from the Instituto Brasileiro de Geografia e Estatística (IBGE) and the Federação Industrial do Estado do Pará (FIEPA), the industrial sector showed rapid growth in the second half of the 1970s. The statistics recorded as new industries,

169 There were six sawmills within a radius of 5 km and in Altamira itself (IBDF registered). According to one manager, there were as many as eight, four of which were visited. Along the Transamazônica in the direction of Itaituba there were at least eight sawmills, towards Marabá at least one. In Altamira itself there were eight furniture factories, three of which were visited.

170 Some sawmills even owned a piece of forest, which was cleared by hired workers. The companies had to pay tax for this.

171 *Colonos* used to use the forest reserve that was not allowed to be cut down when agriculture yielded too little income.

172 For example, one of the furniture makers visited had mainly *fazendeiros* as regular customers, because it had specialised in the construction of large stern gates (*cancelbas*) for *fazendas*. In the rainy months, turnover fell sharply due to the poor accessibility of the roads and declining activity.

among others, the manufacturing of building materials, electrical engineering and communications.¹⁷³

The processing of export cultures did not take place in Altamira. At the most, the producers and trading companies provided pre-processing (*prebeneficiamento*) with separate installations or hand tools. The processing of rice did take place in Altamira, in rice hullers.

The rise of large-scale retail and wholesale trade

The strong growth of the population and the emergence of a middle class of civil servants, engineers and professionals with purchasing power changed the retail industry. Supermarkets as well as speciality shops in consumer durables were opened. Three of the five registered speciality stores were added after 1980. The change went along, among other things, with improving supply. The bridges of the Transamazônica were renewed and the Belém–Brasília road was asphalted, allowing goods from Centro-Sul to arrive more quickly in Altamira.

Until 1976–1977 there were only two supermarkets, eight years later there were already eight. Some chain stores had two or three branches. A striking feature was the supermarket that was part of a company that also had businesses in related sectors or supply companies. The two largest firms had their own rice hullers. One also had a *fazenda* and a vegetable farm. Another firm also owned a chicken farm. This was in order to limit high supply costs from elsewhere as much as possible. Cost-cutting and larger-scale sales made the supermarkets cheaper than the small grocers and the *secos e molhados*. Several mini-supermarkets had to deal with increasing competition in the early eighties, which had “broken their necks,” according to the entrepreneur of one of the companies.

The supermarkets focused especially on the urban middle class. This was apparent from the sale of prepackaged and purified rice, sugar and vegetables that came all the way from São Paulo or Central Brazil and were therefore also more expensive than the local products.¹⁷⁴ At the beginning of the rainy season, the prices of goods supplied from Centro-Sul skyrocketed.¹⁷⁵ One supermarket followed the other.

As for the supermarkets, the situation also changed for businesses that supplied durable consumer goods. The business owners of the local Volkswagen garage and one out of five furniture and household appliances shops whom I interviewed pointed to the favorable development of purchasing power, not only in Altamira itself but also in the rural area, as a result of the newly emerged export cultures and extensive livestock farming.¹⁷⁶ This was also reflected in the fact that the VW company largely relied on *fazendeiros* and cocoa and pepper producers when it came to customers outside Altamira.

173 Data from FIEPA/IBGE.

174 For example, prepackaged rice from São Paulo cost 1300 to 1500 cruzeiros and rice from the region cost about 900 Cr\$. For coffee this was 2800 Cr\$ against 1600 Cr\$ for a pack from the local roaster.

175 Prices rose on average by 30 to 40%, for some scarce vegetables they even doubled.

176 Volkswagen had branches in Itaituba, Santarém, Marabá and Imperatriz (on the Belém–Brasília road). The latter was also for trucks. Such companies mainly sought out the already more consolidated urban settlements (Volbeda 1982b, 234).

But *colonos* and urban lower income groups also formed part of the sales market; they could buy on credit. The VW branch even supplied cars to residents of Porto de Mós and São Felix do Xingu. Along the Transamazônica, the catchment area extended to a distance of 200 km.

Employment in this sector developed favourably.¹⁷⁷ The VW department even wanted to start a separate company for Ford in 1985. Businesses in this sector also did not escape declining turnover during the rainy season.

Transport and services

The number of transport companies has steadily increased, thanks to the resurgent commerce, agricultural export cultures and activities in timber extraction and mining.¹⁷⁸ It was essential to improve the connections between Altamira and Centro-Sul during this time. The asphaltting of the Belém–Brasília road played a crucial role in this. The largest shipping company opened its gates in Altamira in the same year that the port of Vitória was modernised.¹⁷⁹ In 1980 the company started using trailers (*carretas*) that could be used for both land and water transport, so that intermediate loading and unloading was no longer necessary.¹⁸⁰ The road transport company I visited came to Altamira in 1980 to arrange transport for one of the mining companies.¹⁸¹ After the contract was terminated, the company established contacts with commercial companies. The airline company VASP opened a separate freight department in Altamira in 1980, which fell directly under the head office in São Paulo.

The shipping companies and road transport companies had permanent contracts with wholesalers, supermarkets and specialist shops in consumer durables. One of the shipping companies was even responsible for transporting production supplies to the sugar cane-producing zone around Pacal. The airline had contracts with some mining companies and with the private engineering firm that carried out preparatory work for the construction of a hydroelectric power station. During the rainy season, shipping companies and airlines took over the task of road transport, because the Transamazônica was usually closed to traffic.

Altamira exported rice, maize, cocoa, pepper, rubber and timber to Belém (across the river) and cocoa to factories elsewhere in Brazil. The export of tin ore and gold had risen sharply since 1980. The trade in Brazil nuts, on the other hand, had fallen sharply.

The imports were made up as follows: foodstuffs and clothing; cars and household appliances, furniture; machines and machine parts and other means of production for the primary and secondary sector (iron, building materials), medicines and, some-

177 The furniture/household appliances shop I visited started in 1982 with two employees and had ten in 1985. The Volkswagen branch had a total of 50 employees.

178 The information below is based on interviews with the two shipping companies, one of the two freight carriers (the largest) and one of the four registered road transport companies.

179 The shipping company also had branches in Santarém and Itaituba.

180 The trailers could be transported by water (on rafts) as well as by land.

181 The company still had a branch in Itaituba and planned to establish itself in Santarém and Marabá. The company had already opened a number of branches in the state of Rondônia in the 1970s.

times, poultry. Fuel for electricity generation was brought in by road from a depot on the Xingu, 70 km east.

Because of the high transport rates and the local employment situation, local road transport a circuit of unregistered transport small businesses had arisen, usually with one or just a few drivers. They formed an active link in the connections between Altamira and various towns along the Transamazônica.

Of the other service activities, repairs stood out in particular as a fast growing industry.¹⁸² The company visited was one of three registered repair shops in the metal industry. It not only repaired tools used for gold mining, but also manufactured them themselves. The owner had come to Altamira when exploration of the area was expanding greatly.¹⁸³ Gold mining came to a standstill in the rainy season, during which the company fell back on the repair of small machines and cars for mining companies and government institutions and others. The number of employees remained stable during the rainy months, unlike many local sawmills. Another company, which specialised in turning, had government agencies and mining companies as regular customers. These provided the regular income, leaving room to supply credit to other companies.

With regard to other services, the growing number of lawyers, private doctors and clinics was remarkable. The growth was the result of steadily increasing private land ownership and the expanding urban middle class.

Government policy in the early 1980s

The development strategy set out by the Federal government in the mid-1970s was continued into the 1980s. The big difference was that public investment went to a more limited number of projects. In other areas, the government withdrew in favour of private initiative. That implied that various agencies, which depended on the Federal government for their financial resources, had to make do with less. The POLAMAZONIA and the Programa de Redistribuição de Terras (Proterra) programmes have been discontinued.¹⁸⁴ Most tax breaks for extensive livestock farming were also abolished.¹⁸⁵ The agency for federal roads, the Departamento Nacional de Estradas de Rodagem (DNER), received less money. And the regional development agency SUDAM also had to lose a lot of financial scope and influence.

182 In 1970 there were 26 branches with 70 employees, between 1985 and 1990, 67 (registered) branches with 215 employees (Figures: IBGE 1984a and b).

183 Until 1980 he worked in Itaituba, the "El Dorado" of gold mining in the 1970s. In the early 1980s, the centre of gravity would move inland, south of Itaituba.

184 PROTERRA was a programme initiated in 1971 for the distribution of waste lands of *latifúndios* among the small farmers and landless workers in the North and Northeast. Later it became a subsidy pot for the agro-industry, livestock farming and infrastructural projects. (Goodman and Redclift 1981, 145).

185 One of the vets based in Altamira pointed out that a number of ranchers no longer called in a separate doctor. The immediate reason was the implemented salary increase, but in the background were the reversed tax benefits and the stagnation in the regional livestock sector.

Photo 17. Altamira's commercial centre where goods from the South could be bought (1985)



Photo 18. Another part of the commercial centre



Photo 20. Illustration of the construction boom and of the expected rise of incomes, mid-1980s (1985)



Federal banks had to accept a cut in rural lending imposed by the Central Bank. They were forced to limit themselves to those companies and branches of commerce from which a reasonable production volume could be expected and sales were assured, according to an official of the Banco do Brasil.

The Federal government expected all the salvation from a few large-scale mining projects, in which it supplied the energy. The best known project was that of the Grande Carajás adjacent to the dam at Tucuruí. Here, too, the gigantic infrastructure had to attract foreign investors.

These changes in Federal government policy did not leave the Altamira/Transamazônica untouched: The local branch of the DNER conducted a selective maintenance programme from 1981. The priorities were at the connection with Vitória and with the regional petrol depot. Also the section of the Transamazônica westwards was in fair condition, because that was where the cocoa, pepper, sugar cane and mahogany came from. The large companies and the fazendas had their own means of transport and took care of the maintenance themselves.

As far as the energy supply was concerned, Altamira had to make do provisionally with a diesel generator for the generation of electricity. A request for a connection to the grid of the future Tucuruí plant, which would be cheaper, was rejected.

It was expected that the open choice of the banks for large companies producing goods for export would also lead to a greater concentration of land ownership along the Transamazônica, a process that had already started with the announcement of the Polamazonia project, and existed even before that.¹⁸⁶

¹⁸⁶ Before that, there was already an extremely skewed distribution of land ownership. The statistical office IDESP stated in its research report on the municipality of Altamira that, in 1970, 42% of the agricultural area was taken up by only 0.7% of the number of companies.

It was also expected that the emerging rural middle class of *fazendeiros* and wealthy producers of commercial exports would control an increasing part of the production process and that small farmers would become involved. Their power was based on ownership of the land, the possession of means of transport and of storage facilities and other means of production.

In 1982, the INCRA launched a new colonisation project for small farmers, 120–140 km east of Altamira (4000 *lotes* of 100 ha each), but the *colonos* involved received nowhere near the support they needed. Schools and health posts were lacking, so that the newly arrived *colonos* were forced to rely on Altamira for those. Access to the project area was very poor; the side roads were poorly maintained and barely passable during the rainy season, which made sales very difficult. The boundaries between the project area and the neighboring large *fazendas* were not clearly marked and gave rise to land conflicts. The *colonos* were in danger of losing their land unintentionally.

This did not mean that the Altamira/Transamazônica region had completely disappeared from the attention of the Federal government. The 1980s also brought new potential growth prospects.

Modern extractivism and the alternative energy supply (1980–1984)

In 1982, the Federal government started participating in the programme to increase rubber production called Probor (Programa da Borracha). The programme was intended to boost the productivity of declining rubber production areas and establish new rubber plantations. With this, Brazil hoped to become self-sufficient in rubber again. This programme had already started in 1972 and was initially limited to the Amazon region.¹⁸⁷ The 1982–1987 programme aimed for 250 000 hectares of new rubber plantings across the country. The financial support of the programme by the Federal government was (partly) motivated by the need of the motor tyre industry in São Paulo for cheap raw materials.¹⁸⁸

The coordinating body for this programme, the Superintendência de Hevea (SUD-HEVEA), stimulated the cultivation of new varieties (in collaboration with EMBRAPA), provided technical guidance (in collaboration with EMATER), mediated in the start-up of rubber processing mini-companies and traded the purchased rubber to industries in São Paulo. The Banco do Brasil supported the processing companies by subsidising machines, production supplies and even the supply of the raw material. Only the rubber had to be bought by the grower. The bank even participated in PROBOR with its own financial resources, in the expectation that it would bring more stability to the rural sector, according to the agronomist of the Banco do Brasil.

SUDHEVEA did not come to Altamira until 1982, but rubber tapping in cultivated stocks was initiated by EMATER as early as 1975.¹⁸⁹ Until then, it was still extracted in the traditional way. It was collected by rubber tappers and bought up by traders, who

187 During the years 1972–1982, 140 000 hectares of rubber trees were to be planted in Amazônia.

188 As an illustration: the Banco da Amazônia stimulated the sale of the rubber processed in Altamira to the Firestone motor tyre factory in São Paulo.

189 The working area of the Altamira site extended into the municipalities of Altamira, Prainha, São José Porphirio, São Felix do Xingu and Porto de Mós.

transported the rubber in its unprocessed state to Belém. Some landowners made use of the subsidies provided by PROBOR.¹⁹⁰ They started planting rubber plantations or setting up processing businesses.¹⁹¹ *Fazendeiros* also signed up for the laying out of rubber plantations.

Nor did the rubber programme escape the pruning of the austerity measures. While the interest rate itself had risen sharply, the adjustment of the interest rate to inflation was increased from 35% to 80%. As a result, most *seringalistas* were no longer interested in laying out plantations, which would only yield something after five years.¹⁹² A few switched to the production and marketing of seedlings at their own expense. That was more attractive because the stage of production would then be reached earlier.

Traditional rubber tapping also declined, as many rubber tappers turned to gold mining for their fortune. However, a number of them returned to their old places when the gold business disappointed them.

The rubber processing mini-companies failed to reach their production capacity.¹⁹³ They didn't have enough capital to buy sufficient latex. In addition, the landowners preferred to sell the collected rubber to merchants, because it then yielded more for them.

In Altamira itself, a rubber processing company was set up in 1983 by local *seringalistas*. They chose Altamira as their location not only because the raw material was available nearby, but also because SUDHEVEA strongly encouraged location in Altamira. After the company was set up with its own financial means, the bank assisted with the purchase of raw rubber, current expenses and the sale of the processed rubber in São Paulo. Even the maintenance of their own rubber trees was subsidised. They had their own freight boats for transport to Belém. The factory employed about twenty workers who were attracted locally.

Mining also started to expand. The French company Canopus began the production of tin ore in 1983. The Brazilian company Taboca also wanted to start mining gold. Two other companies came to the Xingu to do the same. One of them was partly subsidised as a SUDAM project, partly because the gold mined would be sold to the state.

Gold mining in Amazônia was intensified after the government had decided to pay off part of the foreign debt with the national gold reserves. In order to increase gold production, not only were some gold searchers' camps reopened, but the doors were also opened wide for large-scale exploitation.

Lastly, the Altamira/Transamazônica region was also given a task in providing for the national energy supply. A private engineering firm in Altamira began preliminary research for the construction of a hydroelectric power station, which had to be completed in 1996. Construction was due to start in 1989.

190 One of the most important subsidies was that the adjustment of the interest rate to inflation was only made for 35% instead of 100%.

191 One of the potential advantages was that the latex itself could serve directly as a raw material for the mini-companies and did not have to be defumed first. This meant that the rubber tapper either had more time for his own food supply or could tap more rubber trees per round. Fewer rubber tappers were then needed.

192 A *seringalista* is a large landowner who also has rubber trees on his land. He hires workers to tap the rubber.

193 In 1984/85 there were three mini-companies in the region. One near Porto de Mós, one near Vitória and one at Km 115, west of Altamira. Each had an average of four employees.

In the philosophy of the state-owned company Eletronorte, the hydroelectric power station was to supply energy (CHECK) to the future metallurgical-industrial industry complex that will process the minerals of Carajás. But the primary concern was to achieve an integrated national electricity grid. If the Centro-Sul rivers reached too low a water level to make a satisfactory contribution to the local energy supply, power stations in the North could be called in to help.

Altamira's altered functional structure (1980–1985)

What did the developments outlined above mean for the functional structure of the town of Altamira?

The hydroelectric power station would almost certainly trigger another construction boom, since, in addition to the work on the dam itself, the road network would have to be adapted and a complete residential area for 50 000 people would have to be built for the employees. The engineering firm already employed no fewer than 120 people, most of whom came from Altamira itself. The construction boom had already been foreshadowed in the early 1980s by the expansion of the number of large warehouses for building materials.¹⁹⁴ Two more were built in 1983 and 1984, commissioned by a wholesaler and *fazendeiros*. Private engineering firms were also attracted by the construction boom.

In the retail sector, the impending construction boom had only accelerated the process of scaling-up. One of the largest retail firms planned to open a supermarket-cum-department store in 1985. The owner of the VW branch had a Ford garage built. He also referred to the construction boom and the residential area as his incentive. He wanted to put more expensive models on the market. The relocation of a sawmill to Altamira should also be mentioned. The owner did this, for one reason, to make it easier to obtain cheaper electricity in the future.¹⁹⁵

Developments were also underway in the field of agricultural research and the introduction of new crops that would have an impact on the urban functional structure. In 1984–1985, EMATER and EMBRAPA began to introduce the *guaraná* fruit and cotton as commercial cultures in the region. *Guaraná* was an indigenous fruit, for which there was a lot of demand, so that sales seemed assured. Cotton, introduced by producers from the Northeast and South, had the advantage that it also thrived on less fertile soil. One of the large trading firms in Altamira had planned to set up a cotton processing plant and had already bought a piece of land for it.

In 1983, EMATER, in collaboration with smallholders from the South, started to set up commercial vegetable farms in the immediate vicinity of Altamira.¹⁹⁶ In this way they hoped to do something about the very expensive import of vegetables from Centro-Sul. An EMATER official said that, since then, imports had fallen by 10%. The

194 There were four large warehouses in Altamira in early 1985; three of these had been added after 1979.

195 Altamira was also more attractive to him as a business location because of the abundant supply of especially stable workers and because of the direct proximity to workshops for maintenance and repair.

196 At that time (1984) there were 15 nurseries in operation throughout the region, four of which were in the immediate vicinity of Altamira. Each nursery employed two to four people.

nurseries also focused on seeds, because it was the high supply costs of seeds that had hindered the cultivation of vegetables on a large scale. In order to stimulate the commercialisation of vegetables, a municipal market was opened in 1983. A second market hall was under construction at the time (financed by the SUDAM, among others). In this way it was hoped to stimulate the direct sale of food crops (Umbuzeiro 1983, 5).

To conclude

Altamira is one of the oldest urban settlements in the Brazilian Amazon and was therefore a landmark, focal point and operating base in the construction of the *Transamazônica*. After the road reached it, Altamira went through a spectacular development, as a result of which it had undergone a complete metamorphosis within ten years and fulfilled many new functions, almost entirely as a result of the measures of the Federal government aimed at the physical and economic integration of Amazônia. The development was not unique to Altamira. In other places, too, such as Marabá, Itaituba and Santarém, a radical change took place. What has been described for Altamira in this chapter is therefore also illustrative of the changes brought about by the *Transamazônica* and other access routes elsewhere.

References

- Coelho de Lima, Sebastião. 1983. *Agricultura da subsistência na região de Altamira (PA)*. Altamira: Banco do Brasil/Agência de Altamira.
- Dias, Hiran D. 1984. "Can Small Towns Help Farmers?" In *Equity with Growth? Planning Perspectives for Small Towns in Developing Countries*, edited by Hans Detlef Kammeier, and Peter Swan, 171-193. Bangkok: Asian Institute of Technology.
- FIEPA/CEAG. 1982. *Cadastro Industrial do Pará 1980/81*. Belém: Federação Industrial do Estado do Pará/CEAG.
- Gazeta do Xingu*. 1984. Ano IV, No. 43, 6 November: n. p.
- Goodman, D., and M. Redclift. 1981. *From Peasant to Proletarian; Capitalist Development and Agrarian Transitions*. Oxford: Blackwell.
- IBGE. 1976a. *Censo Comercial 1975 – Pará*, Vol. 4, No. 6. Rio de Janeiro: IBGE.
- IBGE. 1976b. *Censo dos Serviços 1975 – Pará*, Vol. 5, No. 4. Rio de Janeiro: IBGE.
- IBGE. 1977. *Geografia do Brasil. Vol. 1: Região Norte*. Rio de Janeiro: Superintendência de Estudos Geográficos e Socio-econômicos, Departamento de Geografia.
- IBGE. 1982. *Pesquisa Industrial 1979 – Regiões Norte e Centro-Oeste*, Vol. 7, No. 1. Rio de Janeiro: IBGE.
- IBGE. 1983a. *IBGE-Altamira, Monografia Informativa*. Município de Altamira.
- IBGE. 1983b. *Censo Demográfico – Pará (IX Recenseamento Geral do Brasil – 1980, Vol. 1, Tomo 3, No. 4)*. Rio de Janeiro: IBGE.
- IBGE. 1984a. *Censo Comercial – Pará (IX Recenseamento Geral do Brasil – 1980, Vol. 4, No. 6)*. Rio de Janeiro: IBGE.
- IBGE. 1984b. *Censo dos Serviços – Pará (IX Recenseamento Geral do Brasil – 1980, Vol. 5, No. 6)*. Rio de Janeiro: IBGE.

- IDESP/SEP. 1977. *Diagnóstico do município de Altamira*. Belém: Instituto Brasileiro de Direito e Política de Segurança Pública.
- Kammeier, Hans Detlef, and Peter Swan, eds. 1984. *Equity with Growth? Planning Perspectives for Small Towns in Developing Countries*. Bangkok: Asian Institute of Technology.
- Matznetter, Josef. 1981. "O sistema urbano no norte e nordeste do Brasil e a influência das novas estradas." *Revista Brasileira de Geografia* 43, No. 1, January/March: 99–121.
- Milder, Ron. 1986. *Een nieuwe weg voor Altamira. De ontwikkeling van Altamira en haar regio na de aanleg van de Transamazônica*. Unpublished Master Thesis, Nijmegen.
- Moran, Emilio F. 1981. *Developing the Amazon. The Social and Ecological Consequences of Government-directed Colonization along Brazil's Transamazonian Highway*. Bloomington: Indiana University Press.
- Prelazia do Xingu. 1984. *Relatório da Prelazia do Xingu, preparação para a Assembleia de outubro de 1984*. Altamira.
- SEPLAN. 1980. *Plano Anual de Trabalho – Município de Altamira, Estado do Pará*. Belém: Sistema Estadual de Planejamento.
- SERFHAU/Ministério do Interior. 1970. *Município de Altamira, 1970*. Relatório preliminar de desenvolvimento integrado. São Paulo: SERFHAU.
- SUDAM. 1976. *Programa de Pólos Agropecuários e Agrominerais da Amazônia (POL-AMAZÔNIA) – Pólo Altamira*. Belém: SUDAM, Coordenação de Informática, Divisão de Documentação.
- SUDAM. 1980. *Amazônia Legal, hierquia urbana*, Vol. III. Belém: Engerix S.A./SUDAM Departamento DDL.
- Umbuzeiro, Ubirajara Marquez. 1983. *Altamira a sua história*. Altamira: Prefeitura Municipal de Altamira.
- Volbeda, Sjoukje. 1982a. *Urbanisatie in Amazônia Legal. Een identificatie van pionierssteden*. Nijmegen: Katholieke Universiteit Nijmegen.
- Volbeda, Sjoukje. 1982b. "Urbanization in the Frontiers of the Brazilian Amazon and the Expulsion of Pioneers from the Agricultural Sector from 1960 to the Present." *Boletín de Estudios Latinoamericanos y del Caribe* 33: 35–59.
- Volbeda, Sjoukje. 1984. *Pionierssteden in het oerwoud. Stedelijke ontwikkelingen aan een agrarisch kolonisatiefront in het Braziliaanse Amazonegebied*. Ph.D. thesis, Nijmegen.

