G. Asnan

Transportation on the west coast of Sumatra in the nineteenth century

In: Bijdragen tot de Taal-, Land- en Volkenkunde, On the roadThe social impact of new roads in Southeast Asia 158 (2002), no: 4, Leiden, 727-741

This PDF-file was downloaded from <http://www.kitlv-journals.nl>

GUSTI ASNAN

Transportation on the west coast of Sumatra in the nineteenth century

A number of travellers to the west coast of Sumatra in the first quarter of the twentieth century were very much impressed by the state of the roads there; they wrote that the west coast of Sumatra was the region with the best and longest roads outside of Java. They also noted that people there were familiar with many kinds of transportation (Asnan 2001a:4). The infrastructure and means of transportation were West Sumatra's most important assets in the early twentieth century. Not only did the roads connect the various districts and towns within West Sumatra, they also linked West Sumatra with other regions of Sumatra. The means of transport were not owned by a small group of people; they benefited almost all strata of society.

From 1900 on, a road connected West Sumatra with Tapanuli and Medan. Since 1916, a road has linked Bukittinggi (West Sumatra) and Pekanbaru (Riau) and in 1921, the road connecting West Sumatra with Jambi and Kerinci was opened (Colombijn 1996:390-4).

Pedati (buffalo-drawn carts) and automobiles were the most common means of transportation. West Sumatra was known as one of the few regions outside Java that had a considerable number of automobiles. The total number of automobiles in West Sumatra in the early 1920s was estimated at more than 3,000 and by the late 1920s it had more than doubled to 7,000 (Harahap 1926:114-5; Willink 1931:755; Schrieke 1955:270).

The good condition of overland transportation in the twentieth century, in terms of both infrastructure and conveyance, did not come out of the blue. Many historical sources from the early twentieth century – such as monthly and annual reports of the local government, *memories van overgave* (reports written by a resigning civil servant for his successor), reports of the Chamber of Commerce and Industry of Padang, and local newspapers – demonstrate that the sophisticated condition of transportation at the time was the result of earlier developments (Asnan 2001a:5). This article describes the development and condition of road transportation on the west coast of Sumatra in the nineteenth century. The decision to focus on the nineteenth century is based on the fact that the embryo of today's administrative region of West Sumatra

was formed during that period. The formation of West Sumatra as an administrative unit and the prosperity of this region in the nineteenth century were closely related to the development of transportation.

Four questions are dealt with in this study. First, what was the condition of overland transportation, mainly consisting of footpaths, prior to the development of roads? Second, how did a road network emerge in the nineteenth century in interaction with political and economic changes of that time? Third, what did the software, the means of transportation, which made use of the roads, look like? Fourth, what were the cultural and social consequences of the emergence of a road network? Before discussing these four questions, I shall first describe the geographical circumstances of West Sumatra and sketch its emergence as a social and political unit, two aspects that played an important role in the development of land transportation.

The geographical situation

The west coast of Sumatra, or West Sumatra in short, is a name that was introduced and popularized by Westerners, in particular by the employees of the Vereenigde Oostindische Compagnie (VOC). In the beginning, this name had only a geographical meaning, but after the VOC opened an office there the name also acquired political significance. The area became an administrative unit called 'Hoofdcomptoir van Sumatra's Westkust'. At the time, that administrative region's territory consisted only of several coastal towns and their direct environs.

After the VOC's bankruptcy, the English East India Company briefly controlled the area, but in 1819 England handed it over to the Netherlands Indies government. In 1825, the Dutch formed an administrative region at the level of a *residentie* here, naming it Residentie Padang. In 1837 the status was raised to *gouvernement* and the region was called Gouvernement Sumatra's Westkust. One important difference between the VOC and Netherlands Indies administrations was in territorial area. In the Netherlands Indies colonial era, the territory stretched far into the interior and was almost identical to the present province of West Sumatra.

The Gouvernement Sumatra's Westkust consisted of two parts: the coastal area, named Padangsche Benedenlanden, and the interior area, called Padangsche Bovenlanden. There are significant differences between the coast and the interior. The average elevation of the coastal region is only 50 metres, while the interior lies about 650 metres above sea level. Almost all human settlements in the interior were located on hills and mountain slopes near one of several mountain peaks. Geographically, the Padangsche Benedenlanden consist of coastal lowlands. The lowlands are a narrow strip,

because in several places the mountains rise directly from the ocean. Several rivers flow through the coastal region and some fishing villages and coastal towns were found in the estuaries.

The interior, or Padangsche Bovenlanden, forms part of the Bukit Barisan mountain range, stretching from the northwest to the southeast of Sumatra. The Padangsche Bovenlanden are fertile and richly endowed with mineral deposits, compared to the coastal region. The fertile land enables people living in the highlands to make agriculture their main livelihood. Wet-rice cultivation, the cultivation of several cash-crops, gold and iron mines, and products from the rainforest made the Padangsche Bovenlanden an important region on the trading map of Sumatra from the fourteenth century on (Miksic 1985).

Because of natural conditions, the rivers that rise in the interior and empty in the west have fast currents and are for the most part unnavigable. For a long time, the only way the people from the interior could visit the coast and vice versa was by using footpaths.

The footpaths

Until the middle of the nineteenth century, footpaths were the sole infrastructure for land transportation, making the relationship between the coastal and interior regions possible. Since the early history of this region, footpaths had been used to meet the need of people living in the interior for salt from the coast. When speaking of 'the early history', alluded to in the *tambo*, the traditional historiography of the local people, I am referring to the period before the establishment of the Minangkabau kingdom in 1340 (Toeah 1989:53).

Up until the mid-nineteenth century, there were at least five groups of footpaths connecting the coast with the interior (Asnan 2000:131-3). Starting in the north, the first group was in Pasaman. There were two well-known footpaths in this region: one connected Air Bangis and Rao, the other linked Sasak with Lundar and Bonjol. The second group was in Agam and consisted of one path that led from Tiku, along the right bank of Antokan River and the north side of Lake Maninjau, to Bukittinggi. The third group was known as the Padang Panjang group. It connected the coastal towns of Pariaman, Ulakan, Koto Tangah, and Padang via Kayu Tanam, at the bottom end of the Anai Gorge, with Padang Panjang, at the top end of the gorge. From Padang Panjang the path branched out again towards Bukittinggi and Tanah Datar. The fourth group was the Tanah Datar group, connecting coastal towns like Koto Tangah and Padang to Tanah Datar, via towns around Lake Singkarak. Thomas Stamford Raffles descended in 1818 using this route. The fifth group was the Solok group, consisting of two footpaths. The first connected Padang and the XIII Koto Solok region; when Raffles entered the Padangsche

Bovenlanden in 1818 he followed this path. The second path connected Bandar X and the southern part of Solok.

The division of footpaths into five groups was based not only on their geographical position, but also on kinship relations between coastal and interior peoples. The first group, for instance, located in Pasaman, also represented the blood relationship between the people living in Air Bangis and Sasak on the coast and those living in Rao, Lunder, and Bonjol in the interior. *Tambo* of Air Bangis and Sasak report that their ancestors came from Rao, Lunder, and Bonjol (*Tambo Air Bangis* n.d.:4-5) and traders in Air Bangis and Sasak represented their clan members in the corresponding places in the interior. Along the same lines, the people of Pariaman, Koto Tengah, Padang, and Bandar X related that their ancestors came from Agam, Tanah Datar, and Solok (Saleh 1965:160; Amran 1981:312-3; *Tambo Kambang* n.d.:1).

In the beginning, that is, until about the fifteenth century, the footpaths were used only by the mountain people, who needed salt. They travelled to the coastal region to make or purchase salt. This partially explains why people living on the coast generally originated from a region in the interior at the same latitude.

With the emergence of a few trading ports on the coast, the relationship between the coastal and interior regions changed into a new economic relationship. From then on, the footpaths were called *jalan dagang* (trade roads) and were traversed by traders. J.A. van Rijn van Alkemade (1885:321) states that the shifting of the footpaths' main function from salt roads to trade roads took place in the fourteenth or fifteenth century. Various goods were brought down via the trade roads. Gold was one of the first and most important products carried over almost all the paths; later, several other commodities like *lignum aloe* wood, camphor, resins, wax, honey, and other non-timber forest products were carried down. From the coast, cloths, cotton, silk, dried and salted fish, and, of course, salt were normally brought upwards.

The footpaths could only be crossed by people and packhorses. The people using these pathways were usually merchants who carried their trading goods themselves or had them carried by coolies. These coolies were local residents, or slaves from the island of Nias. The goods were normally carried on their shoulders and heads. On average, every person could transport as much as 25-30 kilograms,¹ while packhorses could carry 100 to 150 kilograms.²

Local residents and traders generally made their trips by daylight. The

¹ Kielstra 1889:235. See also Arsip Nasional Republik Indonesia, Jakarta (ANRI), Sumatra's Westkust (SWK) 125/3, Jaarlijksch Verslag van Sumatra's Westkust 1819-1827.

² Algemeen Rijksarchief, Den Haag (ARA), Nederlandsche Handelmaatschappij (NHM) 9465/23a, Verslag betreffende de bevindingen in de Padangsche Bovenlanden door L.M.F. Plate, agent te Padang, 1834.

journeys started early in the morning at about 5 or 6 a.m. and people travelled in groups in order to avoid robbery. A group of traders typically came from one particular village, or one small region, either in the interior or on the coast. They could walk about thirty kilometres a day; the average time needed for a trip from interior to coast or vice versa was six to ten days (De Stuers 1850:148). A group of travellers normally consisted of ten to twenty persons and was led by someone enjoying a higher socio-economic status than the others, such as a *penghulu* (*adat* head), who was a rich trader and a master of self-defence with magical powers. The custom of travelling in groups was continued even after the safety of the roads improved.

Local residents, traders, and travellers using footpaths had to pay *uang jalan* (footpath fee) at certain toll posts, usually located at the border of a *nagari* (village); the fee was paid to the local *penghulu*. Because of the great number of *nagari* along the footpaths, local people and other travellers had to pay the fee many times. Raffles, for instance, noted having to pay toll 26 times on his 1818 journey to the Padangsche Bovenlanden (Raffles 1830: 344-62). It is not clear exactly how much the fee was that had to be paid at each place. The amount was not always the same; sometimes passage was expensive, sometimes it was cheap. The payment did not have to be in cash; in many cases payment in kind was also possible. The amount was usually determined by the village chief. If the toll was paid in cash, it was used for village needs. If paid in special goods, these goods had special significance and were very important for the village. To give an example, a representative of the Nederlandsche Handelmaatschappij (NHM) in Padang on his way from Air Bangis to the interior was asked to pay the toll in cloth. The village chief explained that his *nagari* needed cloth for a group of poor villagers, who had lost all their property in a fire (Asnan 2001a:11).

People erected markets in several *nagari* located along the footpaths. This was a natural development, as nearly all the travellers were merchants or petty traders. They visited almost every market along a particular route. In addition to developing a market function, the villages passed on these footpaths provided shelter and resting places where travellers could eat and stay overnight (Iskandar 1990:66, 70).

Apart from the footpaths between the mountain valleys and the west coast, there were also some footpaths connecting the interior and the eastern part of Sumatra. But, in contrast to those leading west, the paths that went east did not reach the coast. One could follow them only to places that were known as *pangkalan*, *panambatan*, and *pamuatan*. These three kinds of places involved river transportation; the literal meaning of these words is places where *prahu* (canoes) stopped and were fastened, loaded, and unloaded. These places were markets in a social, economic, and cultural sense. *Pangkalan*, *panambatan*, and *pamuatan* were places where traders com-

ing up from the downstream end of the rivers by *prahu* met traders walking from the interior to purchase each other's goods. *Pangkalan*, *panambatan*, and *pamuatan* were all located on the riverbanks of the upstream end of the rivers flowing to Sumatra's east coast (Asnan 2001b:329). Several popular footpaths from the interior to the *pangkalan*, *panambatan*, and *pamuatan* were, from north to south: the path from Rao to Pamuatan Rambah (on the River Rokan), the path from Payakumbuh to Pangkalan Koto Baru (on the River Kampar Kanan), and the path from Tanah Datar and Sijunjung to Pangkalan Kureh (on the River Kuantan).

The relationship between peoples in the interior and those on the west coast, however, was closer than the relationship between those in the interior and those in eastern Sumatra. The coastal people, represented by their *penghulu* (*adat* leaders), acted as *wakil* (representatives) between the interior traders and the foreign, overseas merchants. Dobbin calls the *penghulu* coastal brokers (Dobbin 1983:71). When Sumatra's contact with the overseas world grew more intense, the footpaths acquired a political meaning beyond the economic significance they already had. The political meaning became obvious when the Dutch extended their hegemony from the port towns to the interior area.

Development of the road

The Dutch conquered West Sumatra in a prolonged series of fights, known as the Padri War. Their troops conducted several military campaigns along those footpaths. The first footpath used by Dutch forces was the *jalan dagang* via Sumawang to Tanah Datar, after which they continued their march from Tanah Datar to Agam and Limapuluh Koto via Tabek Patah and Baso (also belonging to the Tanah Datar group).

However, the footpaths were deemed inadequate for the Dutch colonial army's required mobility; the paths needed to be upgraded to roads. The upgrading of the footpaths to roads took place after Governor-General Johannes van den Bosch's visit to the west coast in 1833. This prominent person, recognized as the instigator of the Cultivation System, strongly wished for his troops to win the war as quickly as possible. As one important means in realizing his desire, he ordered the local colonial government to construct a road connecting the main port, Padang, with the interior.

Thus, the first road constructed in West Sumatra connected Padang with the interior, with Padang Panjang in particular, via the Lembah Anai (Anai Gorge). This road was built on top of the former *jalan dagang* of the Padang Panjang group mentioned above. Construction started in 1833 and was completed in 1841. In the same period, the government also built a road

between Padang Panjang and Bonjol, the centre of Padri resistance, via Padang Luar and Matua. At Padang Luar it branched out to Bukittinggi and Payakumbuh; these two towns played a significant role in the last years of the Padri War. Bukittinggi (or Fort de Kock, as the Dutch baptized it) was the centre of Dutch military presence in the interior, while Payakumbuh was a hub of Dutch economic activity. The Dutch opened an NHM secondary agency at Payakumbuh, also building a chain of forts where the Padangsche Bovenlanden bordered on the upstream parts of the eastern rivers. The aim of these forts was to curb the interior people's trade in some of the *pangkalan*, *panambatan* and *pamuatan* east of Payakumbuh. This trade was considered damaging to the Dutch cause.

By the mid-1830s, the construction of a road from Padang northwards along the coast to Pariaman, Tiku, and then Maninjau and Matua was also underway. In Matua, this coastal road joined up with the road from Padang Panjang to Bonjol. All of these roads could be used by *pedati* (buffalo-drawn carts). The aim of the road network was to facilitate the logistics of the Dutch siege of Bonjol, the centre of the Padri.

By the end of the 1840s, the government was paying serious attention to the improvement of roads, both in quality and quantity. Perhaps the road stretching from Padang to Padang Panjang via Lembah Anai received the most attention. The government set up several amenities to facilitate road users, namely rest houses, places where travellers could take a rest and get fresh horses, and military guardhouses, built for the security of road users. Ten years after the project to improve the road was launched, there were four rest houses and military guard posts between Padang and Padang Panjang (Pruys van der Hoeven 1864:12). The same road improvement project was carried out on the roads from Padang Panjang to Bukittinggi and Payakumbuh, and from Padang Panjang to Batu Sangkar. By the mid-1860s, the total number of rest houses and military guard posts in West Sumatra had risen to twelve.

The improvement of facilities along the road was closely related to the status of main road which the Padang-Padang Panjang-Bukittinggi-Payakumbuh and Padang Panjang-Batu Sangkar roads received. This status was based on the fact that these roads were the routes most frequently used by the government and local people as well as traders. As we will see below, the same course became the trunk road used to bring coffee from the interior mountains to Pariaman and Padang, the ports in the west.

After 1848, the government went on to construct several secondary roads. This type of road was used mainly to connect several towns within a West Sumatran district, or to facilitate the process of transporting coffee from several villages to government coffee storehouses in the district capital. Examples are the routes Solok-Alahan Panjang, Solok-Batipuh,

Solok-Sijunjung, Sijunjung-Batu Sangkar and Buo, and Air Bangis-Lundar. All of these roads were completed in the early 1860s. The workers engaged to build these roads consisted of hired free coolies and locals doing *corvée* (*herendiensten*).³

Improvements in the quality and quantity of roads after 1848 were closely related to the introduction of a mandatory coffee cultivation and delivery system, implemented in 1847. The basic idea of this system was laid out in Governor A.V. Michiels's letter dated 1 November 1847. Every peasant family in a region with a suitable climate and soil was required to plant and maintain at least 150 coffee trees. All coffee produced in this manner had to be delivered to the government at a local warehouse, paid for at a price set by the colonial government. Government coffee warehouses were built in almost all districts on the west coast. In return, peasants received cash payments according to predetermined prices.

All secondary roads linked the coffee warehouses to the capital or the most important town in the region. Coffee produced in Limapuluh Koto, for example, was brought to Payakumbuh, coffee produced in Agam was transported to Bukittinggi, and coffee produced in Tanah Datar to Batu Sangkar. All coffee from these towns was brought to Padang or Pariaman over the main road from Padang Panjang, via Lembah Anai and Kayu Tanam.

Peasants carried the coffee to the warehouses on their shoulders or heads. The transportation of coffee from warehouses to the ports on the coast was contracted out to *transportaannemers*: people who had signed a monopoly contract with the government to arrange the transportation of specified goods over a specified route, often after having won a tender. Lie Saaij, head (*kapitein*) of the Chinese in Padang, signed a contract with the government for the transportation of coffee from the interior to Padang Panjang and Kayu Tanam. W. Townsend, a coastal merchant in Padang, obtained the right to transport the commodity from Kayu Tanam to Padang or Pariaman.⁴ In the last quarter of the nineteenth century, the number of *transportaannemers* grew significantly. Apart from transporting coffee, they also handled other goods such as cloth, salt, oil, fish (salted and dried), and forest products, as well as cash money. The best-known *transportaannemers* in the early 1880s were Duemler, Townsend, Lie Joe Teng, Mak Tong, Lie Eng Hoa, Li Khong Haan, Abdul Gani Rajo Mangkuto, and Si Nurut (*Sumatra-Courant* 25-8-1881).

Road construction reached its climax at the end of the nineteenth century. The opening of several big plantations from the 1870s on supported the expansion of road construction. Side roads branching off from secondary roads in Solok, Tanah Datar, Lima Puluh Kota, and Pasaman were built when

³ Pruijs van der Hoeven 1864:11, 32. See also ANRI, SWK 128/22, Algemeen Verslag van Sumatra's Westkust 1874.

⁴ ANRI, SWK 152/1, Maandrapporten 1853.

large plantations were opened in those regions. The opening of new estates also increased the number of *transportaannemers*.

As a result of all this building activity, in 1900 the Gouvernement van Sumatra's Westkust was, outside of Java, the province with the longest distance of roads and the largest number of bridges. Roads of class I (the highest standard) stretched for about 153 km, while there were circa 651 km of class II roads, and around 2,525 km of class III roads.⁵ There were six arch bridges (*boogbruggen*) with a length of over ten metres, and 115 arch bridges with a length of less than ten metres. There were 1,783 bridges of medium technical complexity (*liggers* and *vakbruggen*), with an average length of 8 metres. At the bottom end of engineering skills, there were 729 temporary bridges (*noodbruggen*) and 2,092 culverts (*kleine doorlaten*) (Asnan 2000:231).

Means of transportation

Parallel with the improvement of the infrastructure of roads and bridges, new types of conveyance emerged, adding to the variety of the means of transport. In addition to coolies and packhorses, other popular means of transport at that time were the buffalo-drawn cart (*pedati*) and the two-wheeled carriage (*bendi*) (S...Z 1881:921). Of these two new vehicles, *pedati* was the more important as it was the most widely used in the region. It consisted of a roofed cart on two wheels, drawn by one buffalo. One buffalo-drawn cart could carry goods up to a weight of 8-10 *pikul* (500-620 kg). The transportation costs per *pedati* from the coast to the interior ranged from f 0.20 to 0.40 per ton per km. This price was regarded as high, which was a consequence of, first, the monopoly held by *transportaannemers* and, second, the uncertainty of finding goods to pay for the return trip down to the coast (Kamerling 1895:1078).

The variation in the rate per ton per km was related to the destination. There were three standard prices in West Sumatra: first, from port towns on the coast to towns on the border between coast and interior; second, from these border towns to the first towns encountered in the interior; and third, journeys between interior towns. The best example of this variation was the main road leading through Lembah Anai. The fee for hiring a *pedati* for the first, levelled, section, from Padang or Pariaman to Kayu Tanam, was f 0.20 per ton per km. The cost of the second section, between Kayu Tanam and Padang Panjang, a steep and winding ascent, was f 0.40. This section was notorious for robberies. The third section went from Padang Panjang

⁵ The road classification was based on the maximum capacity of the road. In the early twentieth century, all classes had a width of 3 metres, with the maximum weight of vehicles that could be supported at respectively 2,750 kg, 2,000 kg, and 1,500 kg for classes I, II, and III.

to Batu Sangkar or Bukittinggi and on to Payakumbuh and cost f 0.30 per ton per km. The roads in the flat highland valleys were less dangerous and relatively easy to pass by *pedati*. The route between Padang or Pariaman and Kayu Tanam was usually served by carts from the coast; the section between Kayu Tanam and Padang Panjang was served by carts from the coast and Padang Panjang. The lines Padang Panjang-Batu Sangkar, Padang Panjang-Bukittinggi, and Bukittinggi-Payakumbuh were served by carts from those respective places (Buys 1886:20-4). The buffalo-drawn carts were owned by local people or *transportaannemers*.

Pedati drivers travelled in groups, with for instance coolies and people leading packhorses. A trip usually started just after dawn, at about 5 or 6 a.m. Travelling in groups reduced the risk of robbery (Kielstra 1886:274). Despite the fact that some military guardhouses had been built, during the second half of the nineteenth century, robberies were often reported on this route. In 1868, for example, several attacks on *pedati* in the Anai Gorge were reported (*Sumatra-Courant* 12-12-1868). After a railroad was built close to the Padang-Padang Panjang-Solok main road, the frequency of attacks on road users diminished significantly.

Cultural and social impacts

Footpaths contributed greatly to the development of West Sumatra; they helped connect the coastal and interior regions. Footpaths facilitated out-migration to western and eastern parts of Sumatra of people living in the mountains. In the Minangkabau vernacular, footpaths helped develop the *rantau* (migration area) beyond the *darek* (Minangkabau core area in the heartland of West Sumatra). This population movement was accompanied in turn by the dissemination of *adat-istiadat* (custom), which originated in the interior, to the *rantau*. Conversely, some ideas, most notably Islam, which at first had influence only in the *rantau*, entered the interior via footpaths. This cultural movement along footpaths is summarized in the saying *adat manurun, syarak mandaki* (custom goes down, religion goes up).

The construction of roads during the Padri War was not only important for the establishment of Dutch military and political hegemony, but also in that it furthered the economic interests of both the government and local people. The new road network in the highlands and the trunk road from Padang and Pariaman was one reason that interior people's trade orientation shifted from the east to the west coast. After 1833, the local colonial government encouraged western coastal towns to play a key role in Sumatran trade.

The change of trade patterns from the east to the west coast was helped by the emergence of Padang, Pariaman, Air Bangis, and Painan as port towns

in Sumatra. By the mid-nineteenth century, Padang was Sumatra's biggest and busiest port. Padang was the equal of the ports of Batavia, Semarang, Surabaya, and Makassar. These five ports were grouped as class A ports, serving both national and international shipping, and dealing with the import and export of all kinds of commodities. Pariaman, Air Bangis, and Painan were included in the group of class B ports, which served inter-island and coastal shipping, and which were allowed to handle certain kinds of import and export commodities. The success of these ports, as noted by several writers, was related to the existence of roads (Bickmore 1868:414; Pruys van der Hoeven 1864:59; Willink 1931:753-8).

The construction of roads facilitated the emergence of several population centres. Many villages that were strategically located, for example near a government rest-house, military guardhouses, or a junction, developed into small towns or even quite large ones. Sicincin, Kayu Tanam, Padang Panjang, Matua, Bonjol, Bukittinggi, and Payakumbuh are examples. Padang Panjang, Bukittinggi, and Payakumbuh were centres of Dutch military activity until the end of the colonial era. Padang Panjang was the capital of the Residentie Padangsche Bovenlanden for several years, until the seat was moved to Bukittinggi.

As the footpaths had done, the construction of roads influenced human mobility. The newly constructed roads provided people with new opportunities for travel. While in the era of the footpath people went from their villages in the interior to the still thinly populated region of the *rantau*, in the road era the movement was from villages to towns. This movement to urban centres was inspired by economic motives (people wishing to become traders or to get a job) and social considerations (people wanting to attain higher education).

The road also promoted mobility in a figurative sense. One example of this vertical mobility is the appearance, in the last quarter of the nineteenth century, of a new type of (Chinese and Malay) entrepreneurs known as *transportaannemers*. Another example is the emergence of a new social elite in the urban areas, resulting from their economic success and education.

From an economic perspective, roads increased the number of markets, changed the distribution method of several commodities, and also aggravated the relationship or terminated the cooperation between traders.

After the broadening of the roads, the number of markets in West Sumatra increased significantly. In the 1820s and 1830s there were only about 80 markets, but between 1850 and the 1880s, this number increased sharply to more than 120. Almost all of these new markets were located along a road or at a junction (Dobbin 1983:48; Buys 1886:59, 63).⁶

⁶ See also ANRI, SWK 125/3, Jaarlijksch Verslag van Sumatra's Westkust 1819-27; ANRI, SWK 127/1, Algemeen Verslag van Sumatra's Westkust 1857.

The method by which goods were distributed was changing too. For a long time people and traders had carried palm oil from the coast to the interior on their shoulders, in hollow bamboo tubes. During their trip to the interior they would sell their oil directly to buyers in every market they passed. After the completion of the road, the distributors of palm oil started using *pedati*. The oil was no longer sold directly to buyers in each small market, but to agents in relatively large towns like Sicincin or Padang Panjang; these agents would then sell the oil to the smaller buyers.

The existence of transportation infrastructure and the new means of transport could also tip the balance between competing merchants. The best example is that of the rivalry between Chinese and Malay traders in Pariaman. Cia Biau, a Chinese *kapitein* in Pariaman, held the right to transport salt and several other commodities from Pariaman to Padang Panjang in the interior. At the end of the nineteenth century, the government revoked such monopolies, giving all traders the chance to distribute and sell salt and other protected commodities, after which many traders tried to make their fortune trading these articles. The new regulation disturbed the relationship between Chinese and Malay traders. Both categories were doing their utmost to carry salt and other commodities from Pariaman to Padang Panjang, for example by amassing as many *pedati* as possible. Initially, Cia Biau and his friends were the winners, hiring almost all of the *pedati* at the Pariaman market. However, there were always one or two *pedati* that came to the market late and that were cheaper to hire than the *pedati* arriving there early in the morning. The Malay traders hired the late carts, thus reducing transportation costs, and were able to undersell the products the Chinese traded in the interior. Of course, the interior traders waited for the late Malay *pedati*, looking for cheaper products. Ultimately, Chinese salt and other products piled up in their warehouses, eventually becoming wet and losing their value. Finally, after more than six months, the Chinese traders withdrew from the competition and the entire trade of salt and other commodities between Pariaman and Padang Panjang fell into the hands of Malay traders (Saleh 1965:217-22).

The decline of road transportation in the late colonial period

Road transportation was strongly influenced by new developments in other forms of transportation. In the late nineteenth century, a railway was constructed that ended at the newly opened harbour of Emmahaven, just south of Padang. Initially, the train was used only to transport coal from the Sawahlunto mine to Padang, but soon it also began to carry both people and commodities, connecting all important towns in West Sumatra. The seaport

of Emmahaven was known as the best coal-filling station in Southeast Asia at that time (see Reitsma 1943; Amran 1985:303-15; Colombijn 1992:437-58).

Unfortunately, these three means of transportation – road, railway, and shipping – made a significant joint contribution to the development of the region only until the late 1920s. Four factors caused a decrease in the three forms of transportation. First, land transportation in other regions, especially in the eastern part of Sumatra, started developing. Second, the trend of road construction shifted from west to east. Starting in the early twentieth century, East Sumatra became the island's new centre of political and economic growth. Third, export products from the west coast of Sumatra were in decline. Fourth, the economic crisis hitting the world in the 1930s brought the import-export activities on the west coast to a near standstill.

From the 1930s until about 1980, the construction of land transportation routes on the west coast of Sumatra slackened. But it did not die out. After independence, road transportation made a comeback when the price of road transportation became more attractive than that of railways.

References

Amran, Rusli

1981 *Sumatra Barat hingga Plakat Panjang*. Jakarta: Sinar Harapan.

1985 *Sumatra Barat; Plakat Panjang*. Jakarta: Sinar Harapan.

Asnan, Gusti

2000 *Trading and shipping activities; The West Coast of Sumatra 1819-1906*. Jakarta: Yayasan Rusli Amran.

2001a 'Catatan para pengelana tentang daerah, sejarah dan masyarakat Sumatera Barat', Paper, Seminar Outsiders Write about West Sumatra, Padang, 14 August.

2001b 'Dari sungai ke jalan raya; Perubahan sosial ekonomi di daerah perbatasan Sumbar-Riau pada awal abad XX', in: Edi Sedyawati and Susanto Zuhdi (eds), *Arung Samudra; Persembahan memperingati sem-bilan windu A.B. Lopian*, pp. 323-37. Depok: Pusat Penelitian Kemasya-rakatan dan Budaya-LPUI.

Bickmore, Albert S.

1868 *Travel in the East Indian Archipelago*. London: Murray.

Buys, M.

1886 *Twee jaren op Sumatra's Westkust*. Amsterdam: Akkeringa.

Colombijn, Freek

1992 'Uiteenlopende spoorrails; De verschillende ideeën over spoorweg-aanleg en ontginning van het Umbilin-kolenveld in West Sumatra, 1868-1891', *Bijdragen en Mededelingen betreffende de Geschiedenis der Nederlanden* 107:437-58.

- 1996 'The development of the transport network in West Sumatra from pre-colonial times to the present', in: J.Th. Lindblad (ed.), *Historical foundations of a national economy in Indonesia, 1890s-1990s*, pp. 385-400. Amsterdam: North-Holland.
- Dobbin, Christine
1983 *Islamic revivalism in a changing peasant economy; Central Sumatra, 1784-1847*, London/Malmö: Curzon. [Scandinavian Institute of Asian Studies Monograph Series 47.]
- Harahap, Parada
1926 *Dari pantai ke pantai; Perjalanannya ke Soematra, October-Dec. 1925 dan Maart-April 1926*. Weltevreden: Bintang Hindia.
- Iskandar, N. St.
1990 *Hulubalang Raja; Kejadian di Pesisir Minangkabau 1662-1667*. Jakarta: Balai Pustaka.
- Kamerling, Z.H.
1895 'De vroegere en tegenwoordige toestand van den handel, nijverheid en landbouw op Sumatra's Westkust en de vooruitzichten daarin voor de volgende jaren', *De Indische Gids* 17, II:1059-88.
- Kielstra, E.B.
1886 'Ter Westkust van Sumatra'. *De Gids* 50 [vierde serie 4], II:268-75.
1889 'Sumatra's Westkust van 1833-1835', *Bijdragen tot de Taal-, Land- en Volkenkunde* 38:467-514.
- Miksic, John N.
1985 'Traditional Sumatran trade', *Bulletin de l'École Française d'Extrême-Orient* 74:423-67.
- Pruys van der Hoeven, A.
1864 *Een woord over Sumatra. Volume II: Sumatra's Westkust en Palembang*. Rotterdam: Nijgh.
- Raffles, Sophia
1830 *Memoires of the life and public services of Sir Thomas Stamford Raffles, F.R.S. &c. particularly in the government of Java, 1811-1816, and of Bencoolen and its dependencies, 1817-1824*, London: Murray.
- Reitsma, S.A.
1943 *De Staatspoorweg ter Sumatra's Westkust (S.S.S.)*. Den Haag: Moorman's Periodieke Press.
- Rijn van Alkemade, J.A. van
1885 'Een verbinding tusschen de West- en Oostkust van Sumatra', *De Indische Gids* 7, I:59-67.
- Saleh, Moehammad
1965 *Riwayat hidup dan perasaan saja; Moehammad Saleh Datoek Orang Kaja Besar* [edited by S.M. Latif]. Bogor: Penerbit Dana Buku Moehammad Saleh. [First impression 1933.]
- Schrieke, B.
1955 *Indonesian sociological studies; Selected writings of B. Schrieke (Part One)*. The Hague/Bandung: Van Hoeve.

Stuers, H.J.J.L. de

1850 *De vestiging en uitbreiding der Nederlanders ter Westkust van Sumatra.*
Volume II. Amsterdam: Van Kampen.

S...Z

1881 'Wegen op Sumatra', *De Indische Gids* 3, 1:921-4.

Tambo Air Bangis

n.d. [mimeo]

Tambo Kambang

n.d. [mimeo]

Toeah, Datoek

[1989] *Tambo Alam Minangkabau* [thirteenth print, reedited by A. Damhoeri].
Bukittinggi: Pustaka Indonesia.

Willink, W.

1931 'Het Autoverkeer ter Sumatra's Westkust', *Tijdschrift van het Aardrijks-*
kundig Genootschap 48:753-9.