SURINAM

Source: esri

General

Surinam - officially known as the Republic of Surinam - is a sovereign state on the north-eastern Atlantic coast of South America. It is bordered by the Atlantic Ocean in the North, French Guiana in the East, Guyana in the West and Brazil in the South. It is the smallest country in South America. Surinam has an area of 16.4 Mha (million hectares) with in 2020 a population of 0.59 million, or 0.04 persons per ha (Wikipedia and United Nations, 2019).

Climate and geography

Lying 2 to 5º north of the equator, Surinam has a very hot and wet tropical climate, and temperatures do not vary much throughout the year. Its average temperature ranges from 29 to 34 ºC. Average relative humidity is between 80 and 90%. There are two wet seasons, from April to August and from November to February. There are also has two dry seasons, from August to November and February to April (source: Wikipedia).

The Group Polder Development (1982) describes that Surinam has a rather flat coastal plain, which stretches all along the East-West, about 40 km wide in the East and 120 km in the West. It consists mainly of marine, heavily textured clay deposits. This can be illustrated by a map of Netherlands-Guiana of 1700 (Figure 1) (source: Wikimedia). The schematised geological situation of the coastal plain is shown in Figure 2 (Da Costa, 1983).

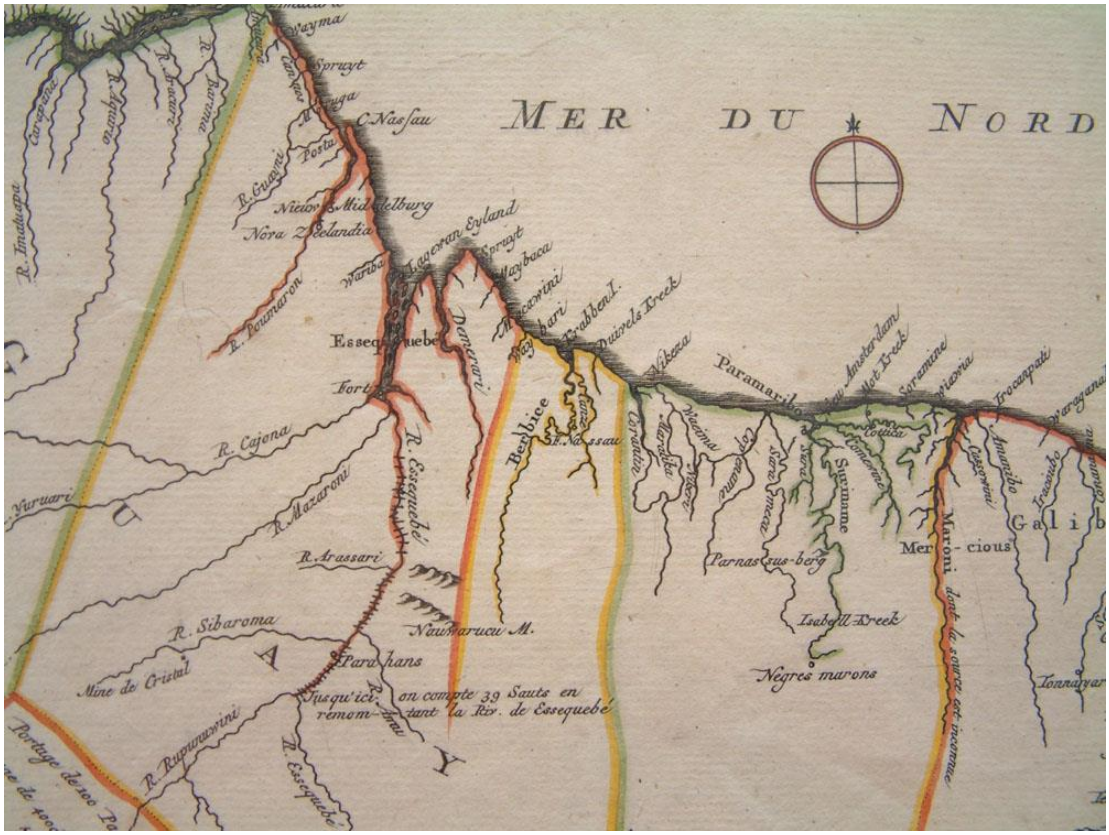

Figure 1. Netherlands Guiana around 1700 (nl.wikimedia.org)

Rostain (2010) describes that the first raised fields were made in Surinam by the Barrancoid builders of the Buckleburg mounds in 350, and probably also in western Guyana (Versteeg, 2008). However, most of the earthworks are associated with Arauquinoid sites in Guyana, Surinam and

French Guiana (Rostain, 1994). Along the Guianas coast, Arauquinoid culture spread from the middle Orinoco to the coast of the Guianas (Rostain and Versteeg, 2004). The first Arauquinoid raised fields were made from 650, but they became common and spread almost everywhere along the coast up to Cayenne Island between 1000 and 1450. Arauquinoid groups belong to a cultural continuum settled between Cayenne Island and Berbice River in eastern Guyana. They erected thousands of raised fields of various shapes, dug canals, ditches, and pathways, and built artificial mounds to establish their villages (Figures 3 and 4). All these earthworks changed forever the face of the coastal flooded savannas and their ecology. In the Guianas, raised fields were found in Surinam in 1956 by Dost, who has described them (Geijskes, 1964 and Boomert, 1976). This represents a territory of approximately 600 km in length where the raised field technique was intensively used for almost a thousand years prior to the European conquest.

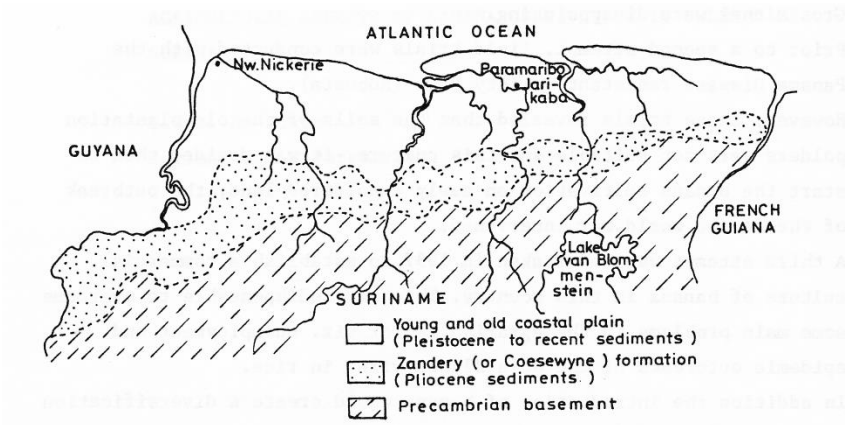

Figure 2. Schematised geological situation of the coastal plain of Surinam (Da Costa, 1983)

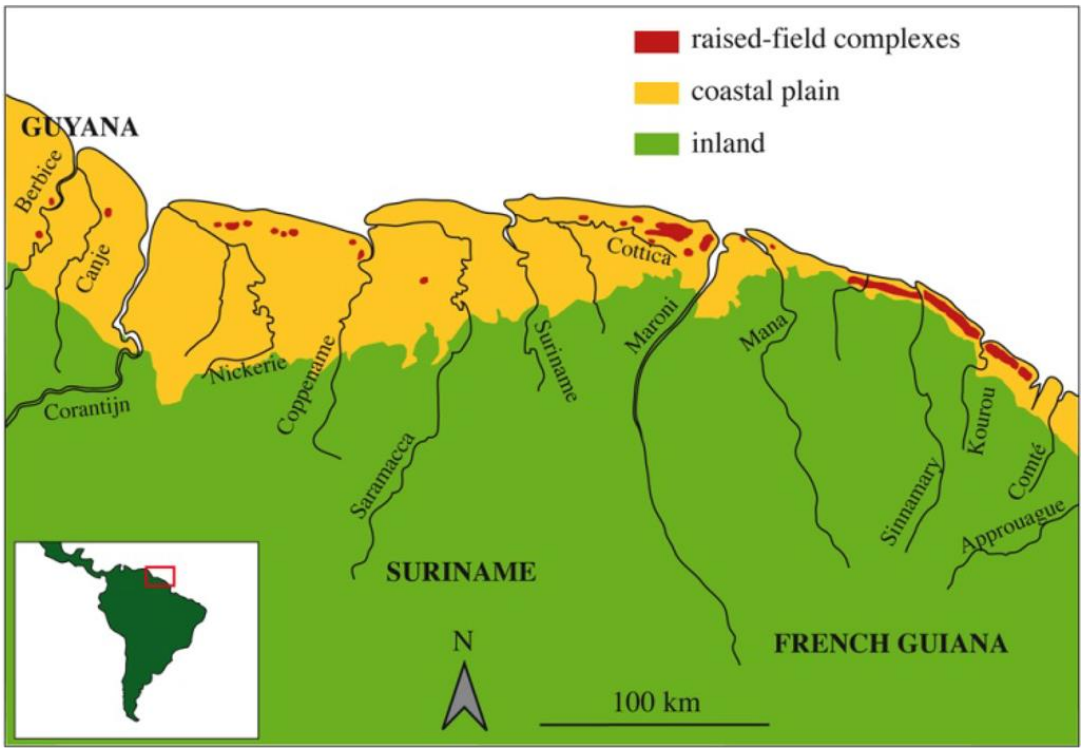

Figure 3. Map of the raised field complexes of the Guianas coast (Rostain, 2010)

The raised fields are classified on the basis of their size, shape and topographical location (Rostain, 2008a). The last criterion is indicative of differences of adaptation to the hydrographical conditions and to the nature of the soil. Rostain (2010) distinguishes four types of raised fields of which two - regular and irregular ones - were also identified in Surinam:

- *ridged fields in the three Guianas*. They are elongated and narrow, measuring between 1 and 3 m in width, 5 to 30 m in length and 30 to 80 cm in height. They take the shape of the slope between the sandy ridges and the swamp. Their distribution is related to the altitude and the water level. On the western coast of Surinam, irregular raised fields are located near the residential mounds. They are distributed arbitrarily or arranged in groups of 2 to 10 or 15. They are oval shaped, measuring between 3 and 6.5 m wide, 8 to 140 m long, with an average of 4−5 × 20−30 m (Boomert, 1980);
- *large raised fields range in size from 2 to 5 m diameter and from 30 to 100 cm height*. These raised fields, generally round in shape, are found in eastern Surinam and around Kourou and Sinnamary, but they are more square or rectangular near Cayenne Island. On the eastern coast and in some areas of the western coast of Surinam, the regular raised fields are rounded-off rectangular or square shapes (Boomert, 1980). Their size ranges from 3 to 4 m wide, 4 to 30 m long and 50 to 100 cm high. They are clearly visible on aerial photographs. These large raised fields are located in the most flooded areas and their sizes are smaller in the deepest swamps.

Figure 4. Hertenrits mound view from the raised fields, western Surinam coast (photo Geijskes, coll. Stichting Surinaams Museum) (Rostain, 2010)

A special find in the swamp near Prins Bernhard Polder, west of the raised fields areas in west Surinam, can be associated with raised fields and to Arauquinoid people. It is a shovel of hardwood (apparently green ebony, *Bignonaceae, Tabebuia serratifolia*), 72 cm long, with a flattened, curved end and a broken cylindrical handle (Figure 5). This tool, probably used to make or to maintain earthworks, yielded a Late Arauquinoid dating of 1240−1280 (Versteeg, 2003). In 1745, Father Gumilla met Otomac Indians who built raised fields with wooden shovels in the Venezuelan Llanos. Similar shovels still exist in some Indian groups such as Ashluslay in Paraguay. In Africa, the Floup from Senegal use a similar wooden shovel, the *kayendo*, to cut quadrangular blocks in the clay (Rostain, 2008b). The block is extracted by pressure of the *kayendo* against the thigh (Figure 5). Archaeological excavations have shown that the Hertenrits mound was built by the piling up of rectangular blocks, probably made with the same type of wooden shovel.

Ditches were made to improve water control. Belt ditches are small and curved waterlines 1−2 m in width, perpendicular to the direction in which the water naturally flows. They enclose some groups of raised fields. They are relatively narrow at their extremities and generally form a pond at the centre. These ditches functioned to prevent too much water near the raised fields during the rainy season. They also most likely served as water reserves during the dry season.

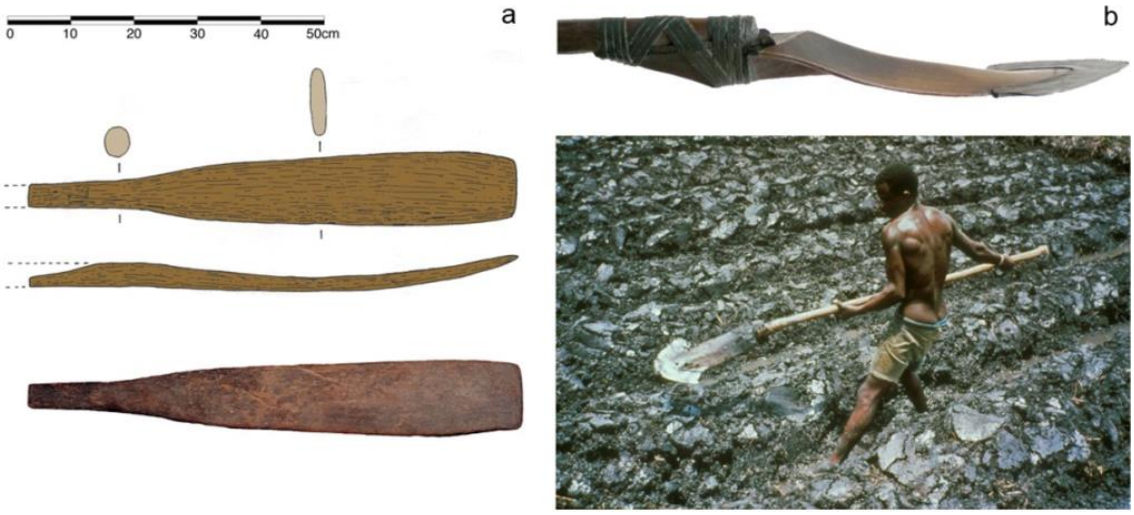

Figure 5. (a) Arauquinoid wooden shovel found near Prins Bernhard Polder (photo and drawing Rostain, 2010). (b) Kayendo from Senegal used to build raised fields by Floup group (photos Montoroi).

Canals were straight and regular, larger than the belt ditches. They measured about 2 m wide and they could have a length of 150 m. They were used for the drainage of excessive water and, perhaps, as water tanks or fishponds. Some of them were exceptionally long and could serve for canoe travel. For example, there were two long canals near the Mana River (Cornette, 1987). One of them was about 2 km long, 3 m deep, 4 m wide at the bottom and 21 m wide at the top. The modern Cariban-speaking Kali'na Indians of the Awala village mention that these canals served in the past to connect the settlements of the lower Mana River. Similar long canals are also found in Surinam, running perpendicularly from a sand ridge and often connected to a raised fields complex (Boomert, 1976).

Artificial residential mounds were associated with raised field complexes in various countries of South America. In the Llanos of Apure, in Venezuela, several Arauquinoid mounds and raised fields have been found. In western Surinam and eastern Guyana, between the Berbice and the Coppename rivers, sandy ridges were absent, so Hertenrits people had to build rounded clay mounds above the water level to erect their villages. At least eight mounds were erected on a landscape where fresh, brackish and salt waters met, but other possible artificial mounds have been reported in this area (Versteeg, 2008).

In about 300, a Barrancoid group raised two mounds. From 650, Arauquinoid communities built new mounds. Their territory extended to cover a region some 210 km long and 25 km wide. At 200 to 320 m in diameter, 2.5 m high, and with a raised area estimated at 4 ha, Hertenrits is the largest of the six Arauquinoid mounds (Figure 6). The Hertenrits mound was occupied during a long period between 650 and 1250, being built progressively, layer by layer (Versteeg, 2008). The area around the mounds was inundated with fresh water at the end of the wet season. Humans modified some water courses to connect them or to improve natural drainage. A ditch of 20 – 100 m wide surrounds the Hertenrits mound. Mounds were built up from circa 600 layer by layer from the clay immediately around the mound. Five wharves of 20 m long and at least 1 m deep were disposed on the periphery to receive canoes. Two smaller satellite mounds were built diametrically opposite, equidistant from Hertenrits: Wageningen-1 is 4 km to the East and Wageningen-3 is 3 km to the West. Raised fields were built between the mounds. They were rectangular or elongated, distributed in irregular and scattered groups of mainly 2 to 10 - 15 plots. Shallow seasonally inundated canals run radially, connecting the Hertenrits mound to raised fields and to the two other mounds. These canals were used as pathways during the dry season and as waterways during the rainy season, strongly suggesting that the three mounds were occupied at the same time. The inhabitants of Hertenrits organized and managed their territory in a precise and specific manner.

The Saramaka, a group of escaped slaves who were living along the Maroni River, sometimes build small and elongated raised fields (Rostain, 1995).

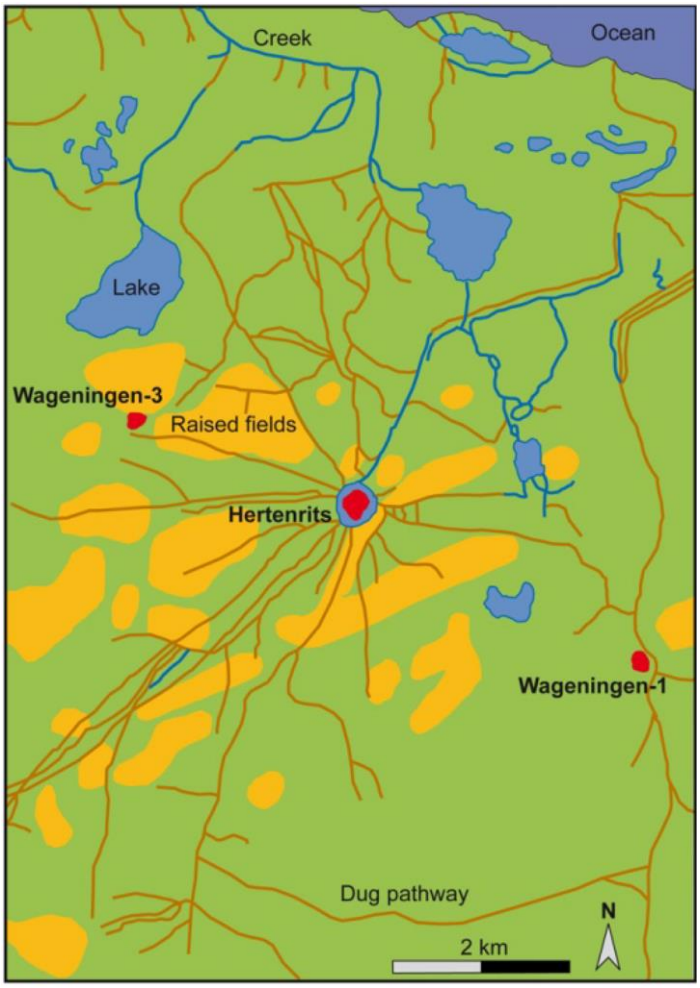

Figure 6. Human modifications in the Hertenrits surroundings with the three residential mounds (Rostain, 2010, redrawn after Boomert, 1980)

Rostain (2010) describes that along the Guianas coast, extensive colonial earthworks were generally built to improve cultivation conditions. The most impressive constructions made by Europeans were the polders. Dutchmen reclaimed thousands of hectares in Surinam. In1668 there were 23 sugar plantations, by 1800 there were 641 plantations along the Para River and the downstream sections of the Surinam and Commewijne rivers. In the 1970s, 3,500 ha of rice polders were irrigated in the Coronie District, on the western coast (National Planning Office of Surinam and Regional Development and Physical Planning Department, 1998).

Rostain (2010) also describes that by using slave labour, Dutchmen built hundreds of hectares of polders along the Cottica River, east of Paramaribo. This is also mentioned by Ehrenburg and Meyer (2015) who state that the plantations in the lowland areas were polders with an advanced multifunctional water management system. They further describe that polder development in Surinam started in the period 1675-1716 along the Commewijne and Cottica rivers. At a later stage polder development started at the isles in the Lower-Essequibo River and along the Demerara River. Interesting is that Van Sommelsdijck initiated the construction of a pilot polder with a small sluice to proof that such a system would be effective.

In 1769, under the influence of Guisan - who had witnessed the construction of polders in Surinam - slaves began building polders east of Cayenne Island. These polders are located between the Oyapock River and Cayenne Island: very few were made west of Cayenne. Today, only a few polders are still in use for rice cultivation in the Nickerie district of western Surinam and at Mana, in the far west of French Guiana (Rostain, 2010).

Already in 1787 Blom describes how for the development of plantations in the coastal area of Surinam polders were constructed. In the dry season first the land where the dike had to be constructed was cleared. Thereafter a dike of clay was constructed in combination with a

surrounding drain. He also mentions that peat could not be used for the dike. Then, within the polder the land was cleared and raised beds and drains were constructed. This was followed by the installation of a culvert with a flap gate at an appropriate place in the dike.

Ehrenburg and Meyer (2015) show in four maps the development of the polder plantations from 1735 till 1860 (Figure 7).

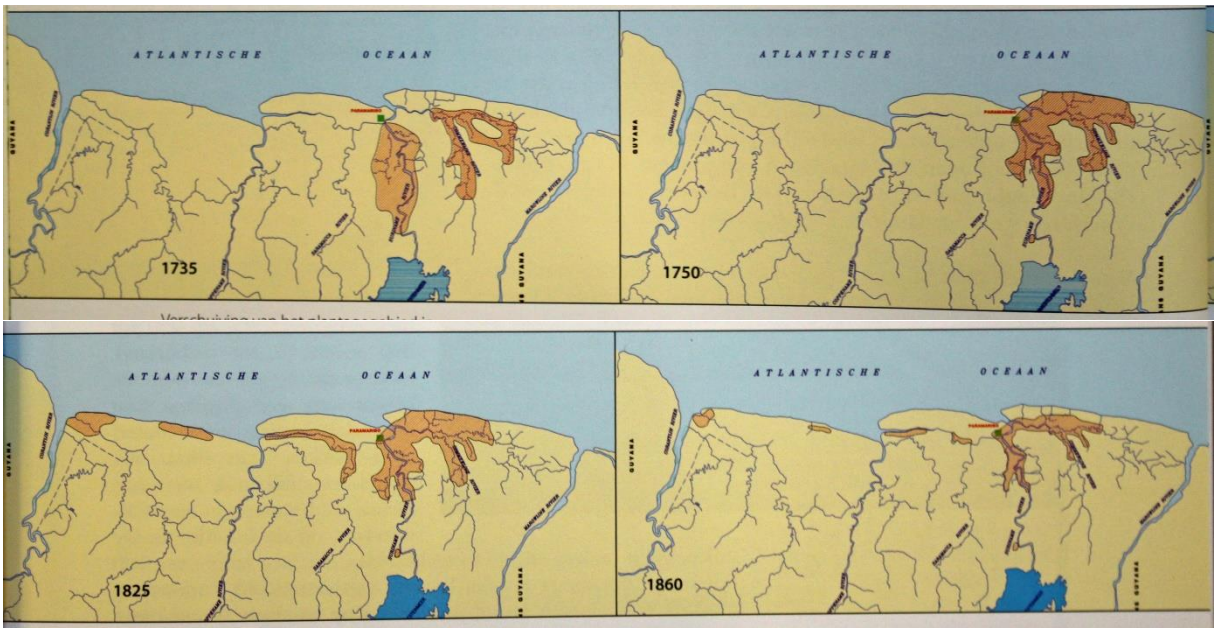

Figure 7. Development of the polder plantations in Surinam from 1735 till 1860 (Ehrenburg and Meyer, 2015)

In line with the description by Blom, Ehrenburg and Meyer (2015) give a detailed description of the infrastructure of the polder plantations. The construction of a plantation started with the excavation of drains along the sides and the backside. With the excavated soil small dikes were made. In this way most plantations had an area between 215 and 430 ha. During low tide the side drains drained the excess water to the rivers through an outlet sluice. Fresh water could be obtained from the upstream swamp by gravity as for example shown by Spier (1983) (Figure 8).

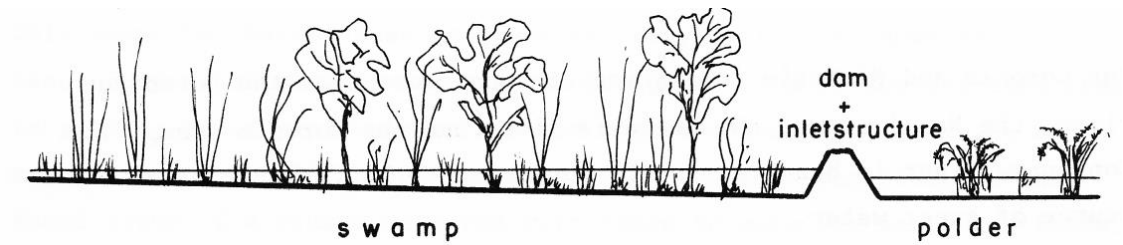

Figure 8. Gravity irrigation of polder plantations from upstream swamps (Spier, 1983)

An old map with the lay-out of a sugar cane plantation is shown in Figure 9. The schematic lay-out is shown in Figure 10 (Ehrenburg and Meyer, 2015).

The Group Polder Development (1982) describes that the large, flat, nearly treeless, uninhabited areas are very suitable for rice cultivation, while they have fertile clay soils and are in the vicinity of rivers with sufficient good quality water. They also describe that European settlers preferred settlement in the marshy downstream areas. The first polders were constructed for the cultivation of high price tropical crops, such as sugar cane, coffee and cotton. Thousands of rectangular polders, varying in size between 200 and 600 ha were constructed along the main rivers in the Guyanas, starting around 1950. In addition to rice there is some banana cultivation in the polders, mostly in the Western District of Nickerie.

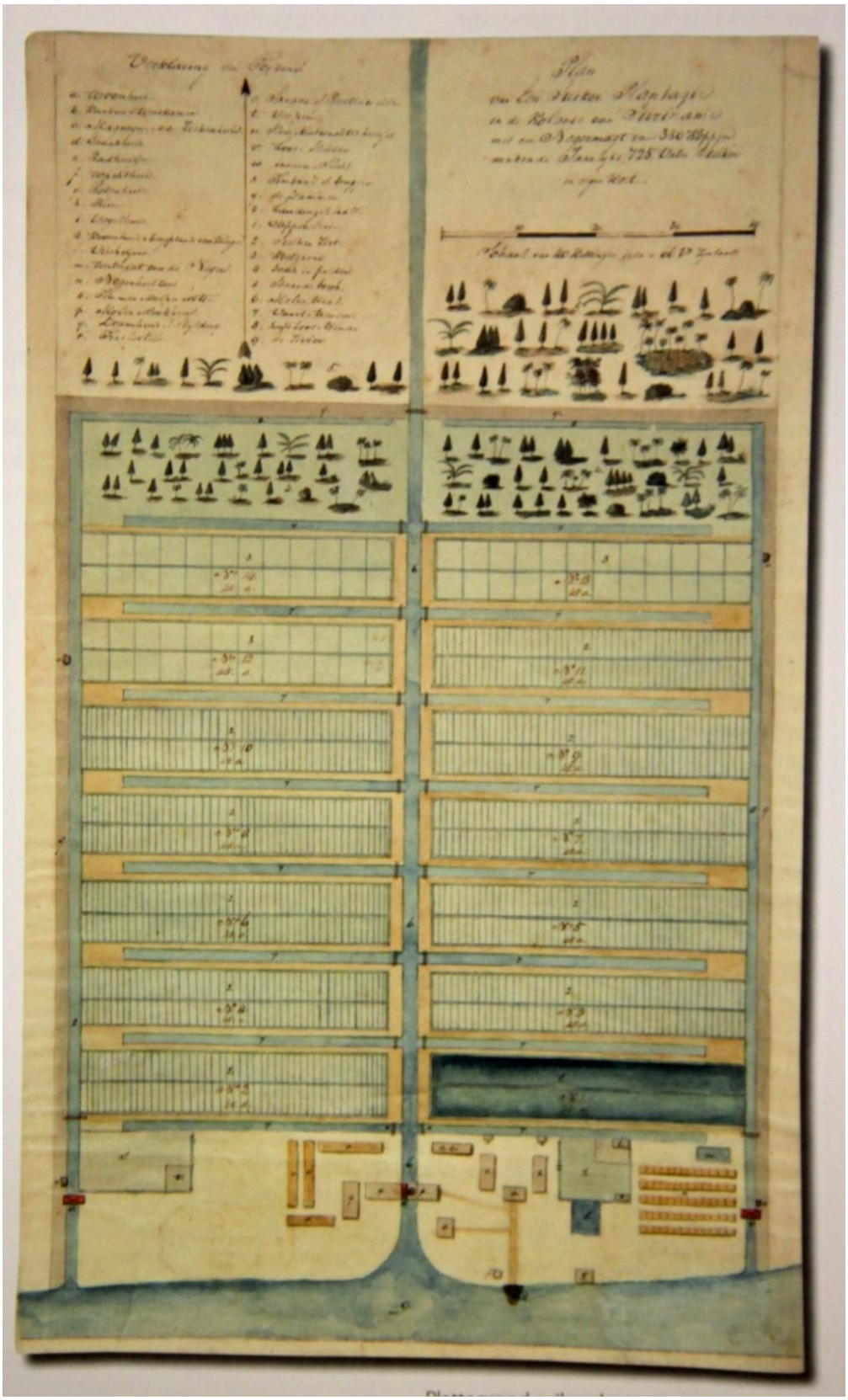

Figure 9. Old map with the lay out of a sugar cane plantation (Tropenmuseum H-3550) (Ehrenburg and Meyer, 2015)

The Ministry of Regional Development (2012) shows the names of the Water Authorities in Surinam. It looks like their responsibilities coincide with the boundaries of polders.

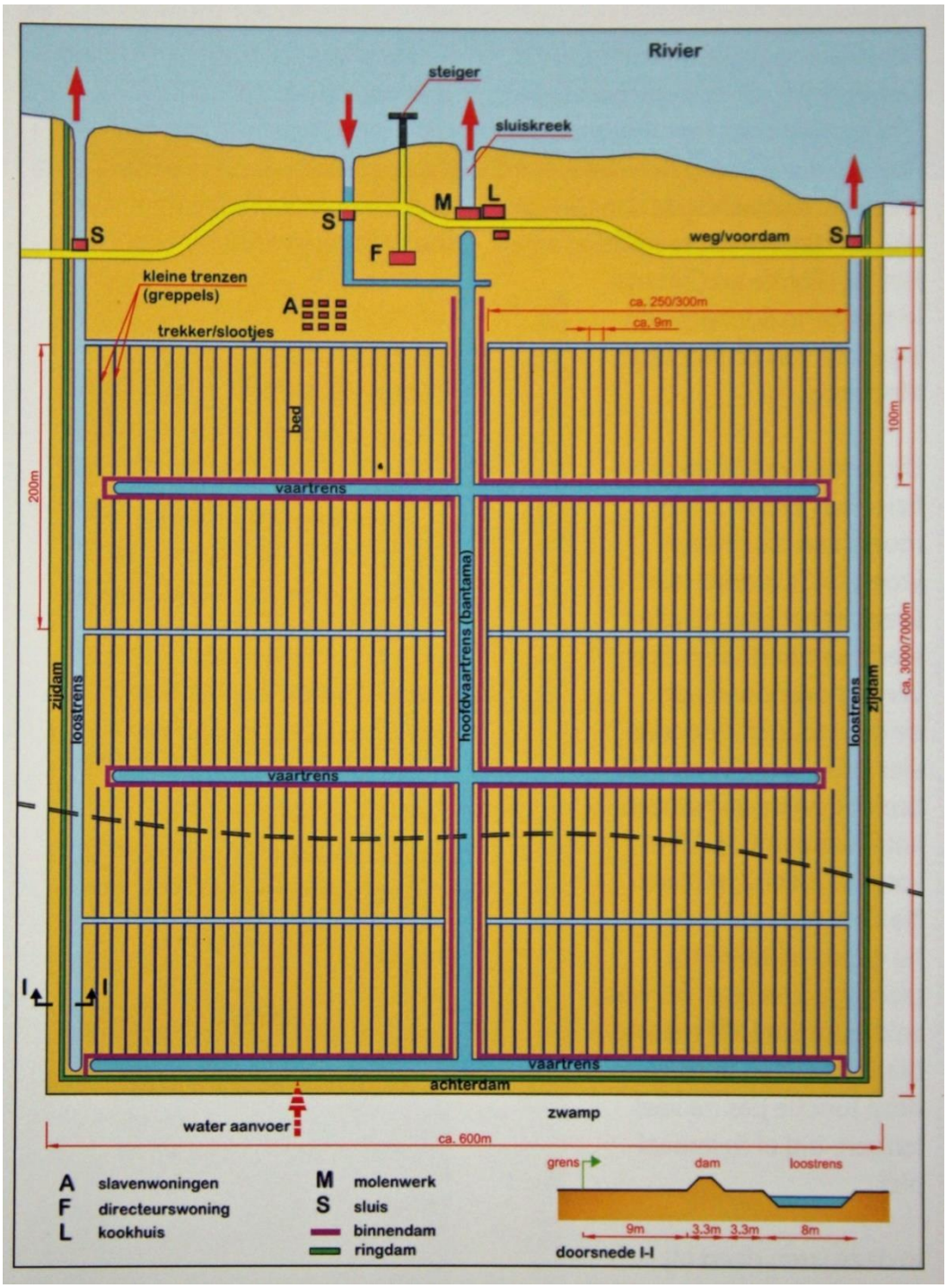

Figure 10. Schematic lay out of a sugar cane plantation (drawing Ehrenburg/Sunecon) (Ehrenburg and Meyer, 2015)

Existing polders

The Group Polder Development (1982) mentions the following polders in Surinam:

- in the Western District of Nickerie near Jaricaba two polders of 450 and 550 ha (Da Costa, 1983);
- in North-West Surinam the cultivated polder area was expanded from some 10,000 ha in 1950 to more than 40,000 ha in the early 1980s (Spier, 1983);
- bij 1980s it was expected that the total polder area in Nickerie would grow to 57,000 ha, involving the following projects:

* Nanni Polder (9000 ha) (Sevenhuijsen, 1977);
* Coronie Polder (2,000 ha);
* Multi-purpose Corantijn Project (33,000 ha).

- a schematic lay out of the Europolder in Western Surinam as shown in Figure 11.

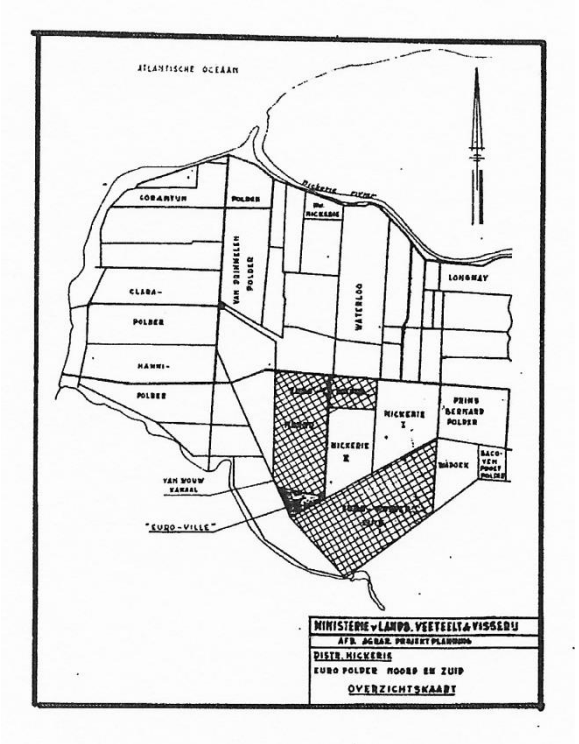

Figure 11. Euro Polder in Western Surinam

Sevenhuijsen (1977) presents the development of polders in the Nickerie District (Figure 12).

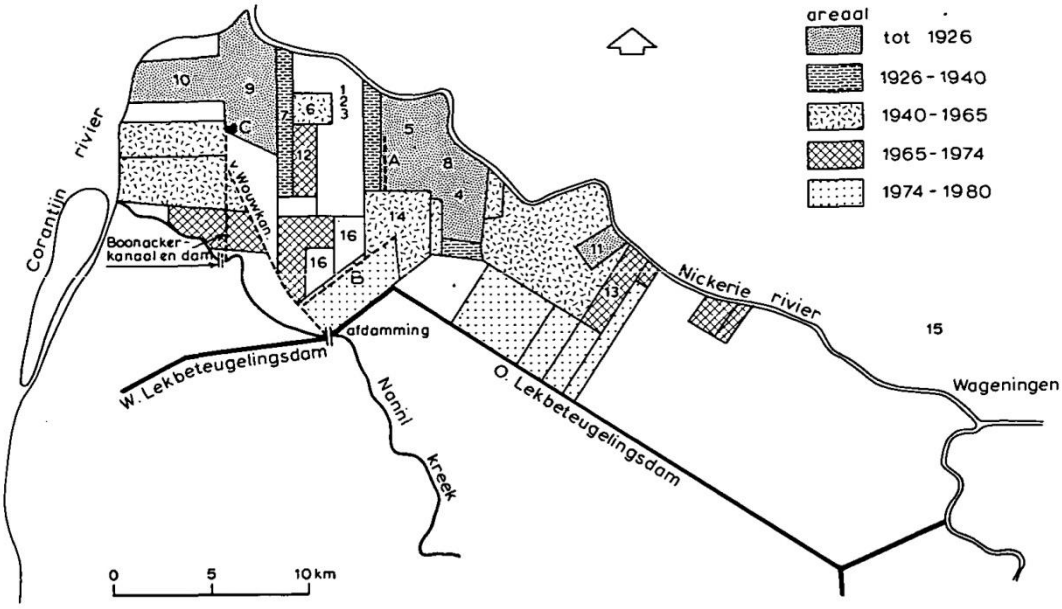

Figure 12. Development of polders in the Nickerie District (Sevenhuijsen, 1977)

Da Costa (1983) mentions three polders of respectively 250, 310 and 480 ha in the District of Saramacca for banana cultivation.

In various other publications names and additional information on polders is given. The names and relevant data are shown in Table I.

Proposed polders

Ritzema (1980) presents a pre-feasibility study on a possible extension of the S.M.L. Polder (Figure 13). A check on Google Earth shows that this extension most probably has not been made.

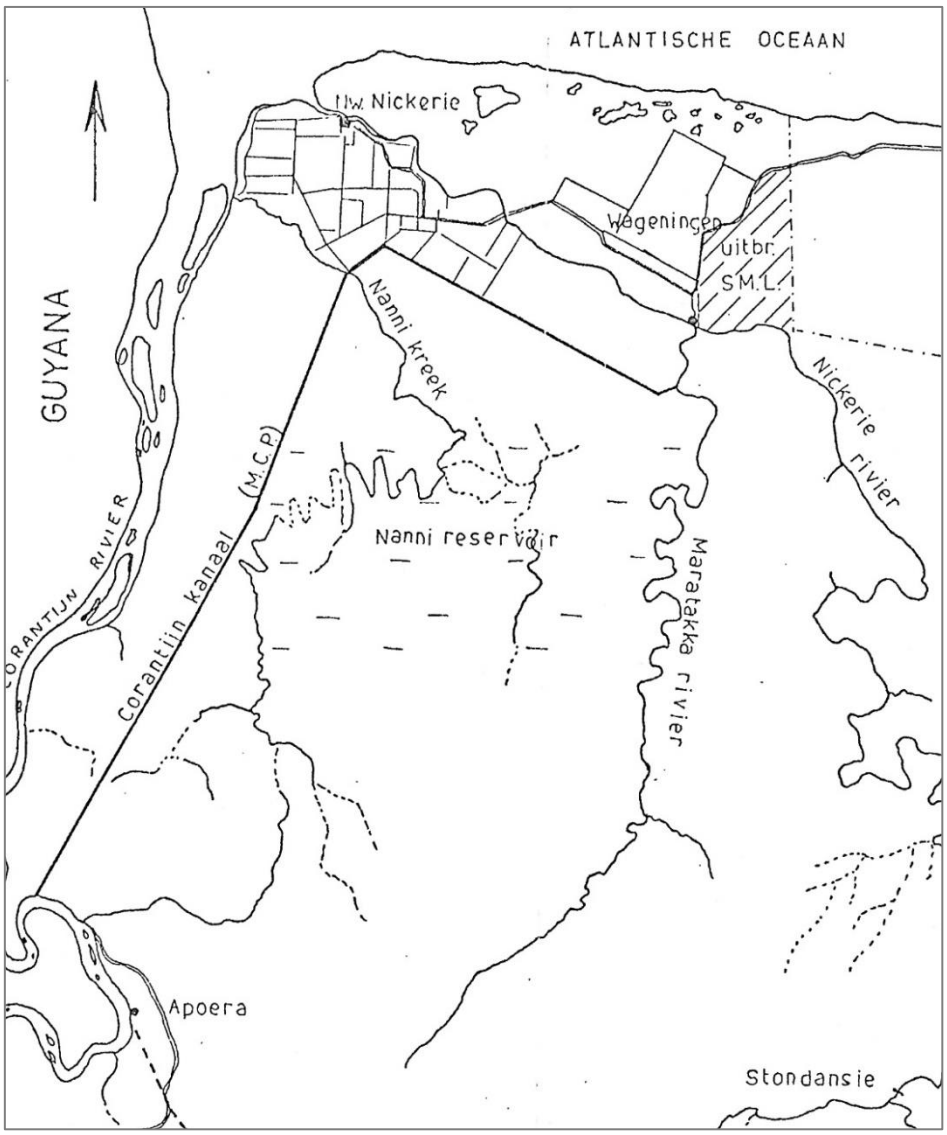

Figure 13. Map of the north-western Part of the Nickerie District (Ritzema, 1980)

Water management system

Da Costa (1983) mentions that all banana polder plantations had the same lay out. A main canal collects the water from the secondary drains or ditches and discharges it through a sluice - often combined with a pumping station - to a regional canal that is connected with a tidal river. Each ditch controls an independent hydrological unit called *kavel*, which is 6-9 ha and is fed by small canals of about 0.90 m deep and 6 m spacing, thus creating a cambered bed system. Each *kavel* consists of 100 – 150 6 m beds and alongside each *kavel* there is a clay road or dike, which can only be used in the dry season (Figure 14) (Da Costa, 1983).

Descriptions of the construction aspects of polders in Surinam are given by Van ‘t Leven (1983) and by Meyer (1983). They stated that from the 18th till the 20th century the construction of polders has

been carried out with manual labour. In the 20th century mechanisation came in. They also stated that because of this more emphasis had to be put on water management than in the past. This implied that the works started with enclosure of the polder area to be sure that no water from outside could flow into the area. At the same time the works were carried out to drain the polder. This was implemented by making a controllable outlet to a natural drainage canal, or a river, or to an already existing drainage system with outlet sluices. In the new polder the drains were excavated first with a road alongside the drains. They further give a detailed description of the steps during the construction phase, which took at least four years (Van 't Leven, 1983; Meyer, 1983).

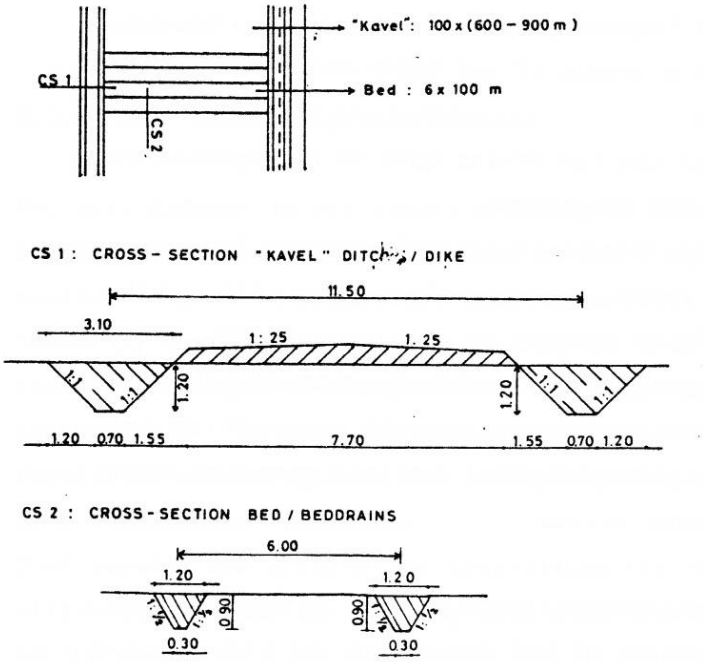

Figure 14. Cross-sections of a kavel for banana plantations Da Costa (1983)

General characteristics of the polders in Surinam are shown in Table I.

References

Blokland, A., 1975. *De waterhuishouding van de Wageningenpolder*. Scriptie Landbouwhogeschool, Afdeling Cultuurtechniek, Wageningen (in Dutch).

Blom, A., 1787. *Verhandeling van den landbouw in de Colonie Suriname*. J.W. Smit. Amsterdam (in Dutch).

Boomert, A., 1976. *Pre-Columbian raised fields in coastal Surinam*. In Proceedings of the 6th International Congress for the Study of the Pre-Columbian Cultures of the Lesser Antilles, Gainesville, FL, USA; pp. 134–144.

Boomert, A., 1980. Hertenrits: an Arauquinoid Complex in North West Surinam. *J. Walter Roth. Mus. 3*, 68–104.

Cornette, A., 1987. Quelques données sur l'occupation amérindienne dans la région basse Mana, bas Maroni, d'après les sources ethno-archéologiques. In: *Equinoxe 24*; CEGER: Cayenne, French Guiana, pp. 70–99 (in French).

Da Costa, I. Che., 1983. *Agricultural aspects of Banana cultivation in polders in Surinam*. In: Proceedings International Symposium 'Polders of the World'. International Institute for Land Reclamation and Improvement, Wageningen, the Netherlands.

Dikland, P., S. Fokké en A. Hagemeyer, 2001. *Recente inventarisaties van Surinaamse plantages*. Paramaribo, Surinam.

Donker, S.M.K., 1983. *The influence of soil salinity on rice yields in the Wageningen polder, Surinam*. In: Proceedings International Symposium 'Polders of the World'. International Institute for Land Reclamation and Improvement, Wageningen, the Netherlands.

Ehrenburg, H. and Meyer, M., 2015. *Bouwen aan de Wilde Kust. geschiedenis van de civiele infrastructuur van Surinam tot 1945*. LM Publishers. Volendam (in Dutch).

Eibers, H.A.J., 1967. *Berekening van de aan- en afvoerbehoefte voor een polder met mechanische natte rijstverbouw in het district Nickerie*. Intern rapport 103, Landbouwkundig proefstation Suriname (in Dutch).

Geijskes, D.C., 1964. *Arowaks in the prehistory of Surinam*. In Proceedings of the 1st International Congress for the Study of the Pre-Columbian Cultures of the Lesser Antilles, Fort-de-France, Martinique, France; pp. 57–70.

Group Polder Development, Department of Civil Engineering, Delft University of Technology, 1982. *Polders of the World. Compendium of polder projects*. Delft, the Netherlands

Ilaco Suriname, 1977. *Meerjaren integraal agrarisch ontwikkelingsplan* (in Dutch).

Ilaco Suriname, 1978. *Multipurpose Corantijn Project*, Parimaribo, Suriname (in Dutch).

Ilaco Suriname, 1978. *Drainage advies noordelijke polders*, Parimaribo, Suriname (in Dutch).

Jong, B.H.J., 1983. *Ecological impacts of polder construction in Surinam.* In: Proceedings International Symposium 'Polders of the World'. International Institute for Land Reclamation and Improvement, Wageningen, the Netherlands.

Kamerling, G.E., 1974. *Bodemfysisch en agrohydrologisch onderzoek in de jonge kustvlakte van Suriname*. Centrum voor landbouwpublikaties en landbouwdocumentatie, Wageningen, the Netherlands (in Dutch).

Kamerling, G.E., Lenselink and v.d. Weert, 1974. Irrigation and drainage requirements for large scale mechanised rice farming in Surinam. *De Surinaamse Landbouw*, no. 1.

Kamerlingh, G.E., 1979. *Bodemfysisch en agro-hydrologisch onderzoek in de jonge kustvlakte van Surinam*. Proefschrift. Wagenigen University. Wageningen, the Netherlands (in Dutch).

Klomp, A.O., 1977. *Early senescence of rice and Drechslera oryzae in the Wageningen Polder, Surinam. Department of Phytopathology*. Agricultural University, Wageningen, the Netherlands.

Leven, L. van 't, 1983. *Construction of polders in Surinam*. In: Proceedings International Symposium 'Polders of the World'. International Institute for Land Reclamation and Improvement, Wageningen, the Netherlands.

Meyer, M.A., 1983. *Construction aspects of polders in the world*. In: Proceedings International Symposium 'Polders of the World'. International Institute for Land Reclamation and Improvement, Wageningen, the Netherlands.

Ministry of Agriculture, *Livestock and Fisheries*, 1978. Irrigatie behoefte van rijstpolders.

Ministry of Regional Development. *http://www.gov.sr/ministerie-van-ro/actueel/archief/2012/waterschappen-in-Surinam* (in Dutch).

National Planning Office of Surinam and Regional Development and Physical Planning Department, 1998. *Surinam Planatlas*; Washington, DC, USA.

Ritzema, H., 1980. *Uitbreiding van de S.M.L. polder. Vooronderzoek*. Afstudeerproject. TU-Delft, Afdeling der Civiele Techniek, Werkgroep Polderinrichting. Delft, the Netherlands (in Dutch).

Rostain, S., 1994. *L'occupation Amérindienne Ancienne du Littoral de Guyane. TDM 129*; ORSTOM editions: Paris, France.

Rostain, S., 1995. *La mise en culture des marécages littoraux de Guyane à la période précolombienne récente*. In: Milieux, sociétés et archéologues; Marliac, Ed.; éditions ORSTOM/Khartala: Paris, France, 1995; pp. 119–160.

Rostain, S., 2008a. Agricultural Earthworks on the French Guiana Coast. In: *Handbook of South American Archaeology*; Silverman, H., Isbell, W., Eds.; Springer/Kluwer/Plenum: New York, NY, USA, pp. 217–234.

Rostain, S., 2008b. Le littoral des Guyanes, héritage de l'agriculture précolombienne. In : *Études rurales, Varia 181*; éditions de l'EHESS: Paris, Frances, pp. 9–38.

Rostain, S., 2010. Pre-Colombian earthworks in coastal Amazonia. *Diversity*. 2 (3).

Rostain, S. and Versteeg, A.H., 2004. *The Arauquinoid Tradition in the Guianas*. In: Late Ceramic Societies in the Eastern Caribbean; Delpuech, Hofman, Ed., BAR 1273. Paris Monographs in American Archaeology; Archaeopress: Oxford, United Kingdom, pp. 233–250.

Sevenhuijsen, R.J., 1977. *Irrigatie uit een moeras, een hydrologische studie van de Nannizwamp in Surinam.* PhD Thesis Wageningen University.

Spier, A., 1983. *Present state of water resources development in North-West Surinam*. In: Proceedings International Symposium 'Polders of the World'. International Institute for Land Reclamation and Improvement, Wageningen, the Netherlands.

Surgroma, 1977. *Indicatief Regionaal Ontwikkelingsplan Nickerie Coronie*.

United Nations, Department of Economic and Social Affairs, Population Division. 2019. *World Population Prospects, medium prognosis. The 2019 revision*. New York, USA.

Versteeg, A.H., 2003. *Surinam voor Columbus/Surinam before Columbus*; Libri Musei Surinamnsis 1, Stichting Surinaams Museum: Paramaribo, Surinam.

Versteeg, A.H., 2008. *Barrancoid and Arauquinoid mound builders in coastal Surinam*. In: Handbook of South American Archaeology; Silverman, H., Isbell, W.H., Eds.; Springer/Kluwer/Plenum: New York, NY, USA, pp. 303–318.

Wit, Th.P.M. de, 1960. *The Wageningen Rice Project in Surinam. A Study on the Development of a Mechanized Rice Farming Project in the Wet Tropics*. PhD Thesis Wageningen University. Mouton & Co., 's-Gravenhage.

Bart Schultz

Lelystad, July 2021

Table I. General characteristics of existing polders in Surinam

Name	Reclamation	Area in ha	Type *)	Latitudes	Longitudes	Elevation in m+MSL	Land use
Paradise	1898	286	RLL	5º 54' N	56º 56' W	0	Rice
Longmay			RLL	5º 55' N	56º 56' W	0	Rice
NieuwWaldeck	1903	156	RLL				Rice
Sawmill Polder	1909/1914	274	RLL	5º 57' N	57º 00' W	2	Rice
Hampton Court Polder	1910/1938	450	RLL	5º 51' N	56º 55' W	1	Rice
Uitbreiding Hampton Court Polder			RLL	5º 53' N	56º 56' W	1	Rice
Boonacker Polder	~1913	217	RLL	5º 54' N	56º 55' W	2	Rice
Van Drimmelen Polder	1914	550	RLL	5º 51' N	56º 55' W	1	Rice
Corantijn Polder	1919	1011	RLL	5º 57' N	57º 02' W	2	Rice
Klein Henar Polder	1920	43	RLL	5º 51' N	56º 55' W	1	Rice
Margarethenburg (Van Dijk)	1934	~500	RLL	5º 57' N	57º 00' W	2	Rice
Clara Polder	1942	1500	RLL	5º 51' N	56º 55' W	1	Rice
Van Petten Polder	1946		RLL	5º 56' N	57º 00' W	1	Rice
Prins Bernhard Polder	1950	200	RLL				Rice
Commissaris Simons Polder	1e helft 20e eeuw	460	RLL	5º 40' N	55º 04' W	5	
Johannis Polder	1e helft 20e eeuw	214	RLL				
Saramacca Polder	1e helft 20e eeuw	2800	RLL	5º 48' N	55º 40' W	12	
Middenstands Polder	1961	1431	RLL	5º 54' N	56º 47' W	1	Rice
Bruto Polder			RLL	5º 51' N	56º 55' W	1	Rice
Commewijne			RLL	5º 43' N	54º 52' W	5	
Coronie Polder		2000	RLL	5º 37' N	56º 17' W	6	
Eerste Bacoven Polder				5º 49' N	56º 53' W	1	
Europolder-noord			RLL	5º 51' N	56º 55' W	1	Rice
Europolder-zuid			RLL	5º 51' N	56º 55' W	1	Rice
Groot Henar Polder			RLL	5º 51' N	56º 55' W	1	Rice
Nanni Polder		9000	RLL	5º 51' N	56º 55' W	1	Rice
Other polders in North-West Surinam		17160	RLL	5º 50' N	56º 56' W	1	Rice
Polder I near Jaricaba		450	RLL	5º 50' N	55º 24' W	4	Banana
Polder II near Jaricaba		550	RLL	5º 50' N	55º 22' W	4	Banana
Sub-total		38752					

*) RLL = reclaimed low-lying land; LGS = land gained on the sea; DL = drained lake

Table I. General characteristics of existing polders in Surinam (continued)

Name	Reclamation	Area in ha	Type *)	Latitudes	Longitudes	Elevation in m+MSL	Land use
Sub-total previous page		38752					
Polder I in Saramacca District		250	RLL	5º 49' N	55º 37' W	7	Banana
Polder II in Saramacca District		310	RLL	5º 49' N	55º 37' W	7	Banana
Polder III in Saramacca District		480	RLL	5º 49' N	55º 37' W	7	Banana
Reeberg			RLL	5º 42' N	55º 17' W	7	
Sint-Jozef Polder			RLL				
Swamill Polder			RLL	5º 54' N	56º 56' W	0	
Totness Polder			RLL	5º 52' N	56º 20' W	4	
Tweede Bacoven Polder			RLL	5º 49' N	56º 53' W	1	
Wageningen Polder		10000	RLL	5º 50' N	56º 43' W	3	Rice
Wasima			RLL	5º 51' N	56º 55' W	1	
Total		49792					