

## JAPAN



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### General

Japan is an island nation in East Asia. Located in the Pacific Ocean, it lies off the eastern coast of the Asian mainland and stretches from the Sea of Okhotsk in the North to the East China Sea and China in the Southwest. The area of Japan is 37.8 Mha (million hectares) with, in 2022, a population of 124 million, or 3.28 persons per ha (Wikipedia and United Nations, 2022).

### Climate and geography

The climate of Japan is predominantly temperate, but varies greatly from North to South. Japan's geographical features divide it into six principal climatic zones: Hokkaido, Sea of Japan, Central Highland, Seto Inland Sea, Pacific Ocean, and Ryukyu Islands. The northernmost zone, Hokkaido, has a humid continental climate with long, cold winters and very warm to cool summers. Precipitation is not heavy, but the islands usually develop deep snowbanks in the winter. In the Sea of Japan zone on Honshu's west coast, northwest winter winds bring heavy snowfall. In the summer, the region is cooler than the Pacific area, though it sometimes experiences extremely hot temperatures because of the foehn. The Pacific coast features a humid subtropical climate that experiences milder winters with occasional snowfall and hot, humid summers because of the southeast seasonal wind. The Ryukyu Islands have a subtropical climate, with warm winters and hot summers. Precipitation is very heavy, especially during the rainy season. The average winter temperature in Japan is 5.1 °C and the average summer temperature is 25.2 °C. The main rainy season begins in early May in Okinawa, and the rain front gradually moves north until reaching Hokkaido in late July. In most of Honshu, the rainy season begins before the middle of June and lasts about six weeks. In late summer and early autumn, typhoons often bring heavy rain (source: Wikipedia).

With its large population and relative small agricultural area (only 15 to 20%), Japan's land reclamation through impoldering has always played an important role. However, little is known about the origins. Around 1200 (the Minamoto Shogunate) there was not much need for reclaiming tidal foreland and coastal marshes. This changed when Tokugawa Ieyasu established the Tokugawa Shogunate in 1603. It marked the end of a long period of unrest and local wars between the feudal lords (*dyamios*). Hidoshi, who was a feudal lord himself, unified and pacified Japan. From then on, the feudal lords could only increase their power by peaceful conquest of land on the sea. A famous engineer of that time was Kato Kyomasa, who is well known in Japan's history as a general and an architect of castles. He built the dikes of his polders like castle walls with a steep facing. In 1639 the Tokugawa Government closed the country for foreigners and Japan went into a period of nationalisation. Only the Dutch were permitted to maintain a trading station at Nagasaki. Yet the Japanese polder technology developed independently of the west. An example of the reclamation of an inland marsh of that period is the drainage and irrigation of the Minumadai Area. The main problem to be solved for the reclamation of this area was the construction of drains, as the area was an inland marsh. Fortunately, the topographical features of the area allowed for natural drainage. Tamenaga Isawa supervised the works that commenced in 1727. His investigations showed that the excess water could be drained in the Ara River, by converting the Shiba River into a canal (the Shiba River was situated between the Minumadai Area and the Ara River. The reclamation of this marshy area led to the development of 600 ha of new paddy fields, whereas the water management conditions of the existing paddy area could be considerably improved. The completion of flood control works in the large rivers resulted in a rapid decline of damage caused by floods, especially in the lowlands in the midstream and downstream river reaches. The next important item was the water control of these embanked low-lying lands. With the establishment of drains, pumped drainage started. The Azumi Irrigation Project, which aimed at the development of about 5,000 ha of the Azumi Plain, can be considered the first project within this framework (Volker, personal communication) (Ministry of Agriculture and Forestry, Agricultural Land Bureau, Land Reclamation Section, Construction Division, 1953; Shibuya, 1954; Sasaki, 1959).

As there was a strong need for more arable land, the Japanese irrigation, drainage and reclamation techniques rapidly developed during the period 1868 - 1945, and included the reclamation of tidal forelands, drainage of lakes and inland marshes, reclamation, flood protection and drainage of floodplains, enclosure of estuaries and lagoons with partial reclamation, etc. It was in this period that the western hydraulic engineering technology reached Japan; a large group of Dutch engineers stayed many years as advisors on various hydraulic projects. At the end of the 19<sup>th</sup> century more attention was paid to the drainage and irrigation conditions of existing agricultural lands and to reclamation works in new areas. Especially the areas in the proximity of large rivers were poorly drained. In the period 1923 - 1945 many activities focused on these areas, covering an area of 759,000 ha. Drainage improvements were carried out in some 25% of the existing schemes (Ministry of Agriculture and Forestry, Agricultural Land Bureau, Land Reclamation Section, Construction Division, 1953; Shibuya, 1954; Sasaki, 1959).

From the post-war period, the Japanese Hachirogata Reclamation Project, reclaimed in 1957, must be mentioned. It is one of the most spectacular polder projects in the world (Schultz *et al.*, 2013).

### Existing polders

The Group Polder Development (1982) identified 42 polders. Their locations are shown in Figure 1. The names, year of reclamation and the area are shown in Table I. Kuwano (1983) mentions that in Japan since 1958 more than 125 polders have been built.

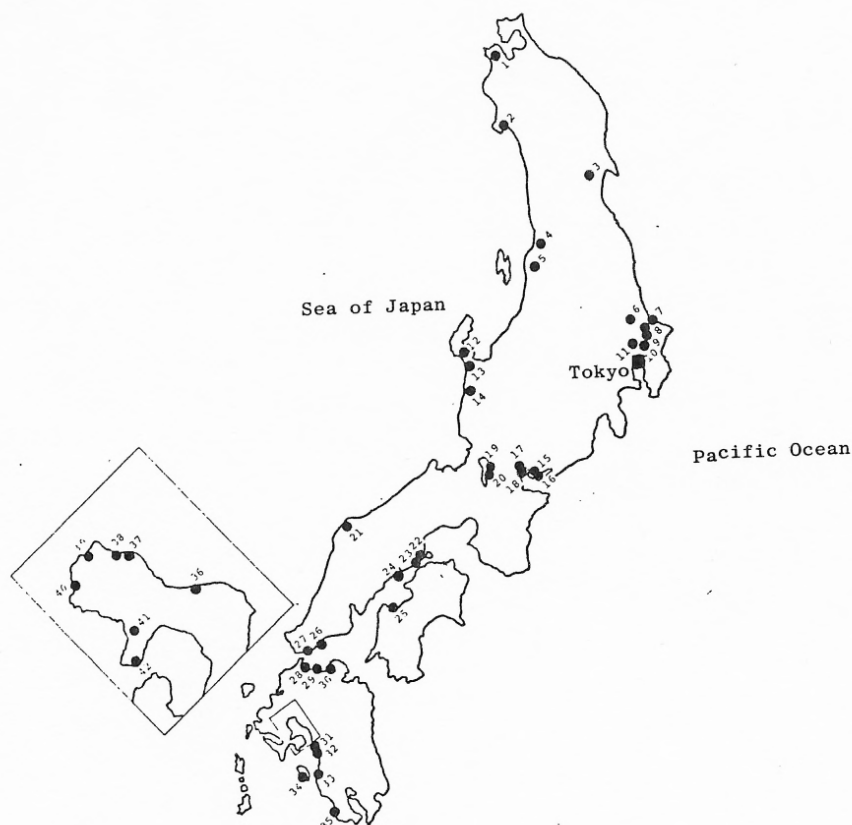


Figure 1. Location of polders in Japan (Group Polder Development, 1982)

In addition the following polders are mentioned in different sources:

- Deshima (1634, 10 ha) (Wikipedia);
- Polders in Kojima Bay (1911-1961, 51,400 ha) (Wikipedia).

Kuwano (1983) describes protection works on the dike of the Nishino Polder. In his paper also the parcellation is shown (Figure 2).

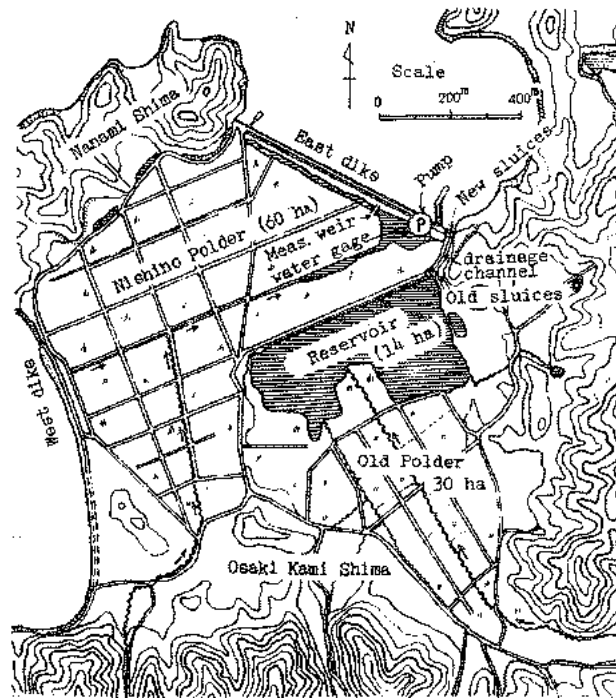


Figure 2. Lay out of the Nishino Polder

The Centre for Civil Engineering Research and Codes (CUR) and Ministry of Transport, Public Works and Water management (1993) mention that the surface level in the Hachirogata polder can be 5.0 m-MSL.

Kuniyasu and Kuwabara (2007) describe the development of polders in the Kojima Bay since 1618. In 1860 about 6800 ha were reclaimed through a series of polders in the lake. During the Meiji-era larger scale reclamations were implemented resulting in an additional polder area of about 3000 ha. In 1956 Kojima Bay was closed off by an enclosing dam and the saline bay became a fresh water lake.

Ota (2018) shows the reclamations in the Ariake Sea (Figure 3). He also shows in detail the development of the plans for the closing of Isahaya Bay and the reclamation of Isahaya Polder (Figure 4). In the area there is 6 m tidal range. Three Plans have been made. The third plan started in 1986. This plan has now been implemented (Figure 5) (Ota, 2016). The sea dike was closed in 1997.

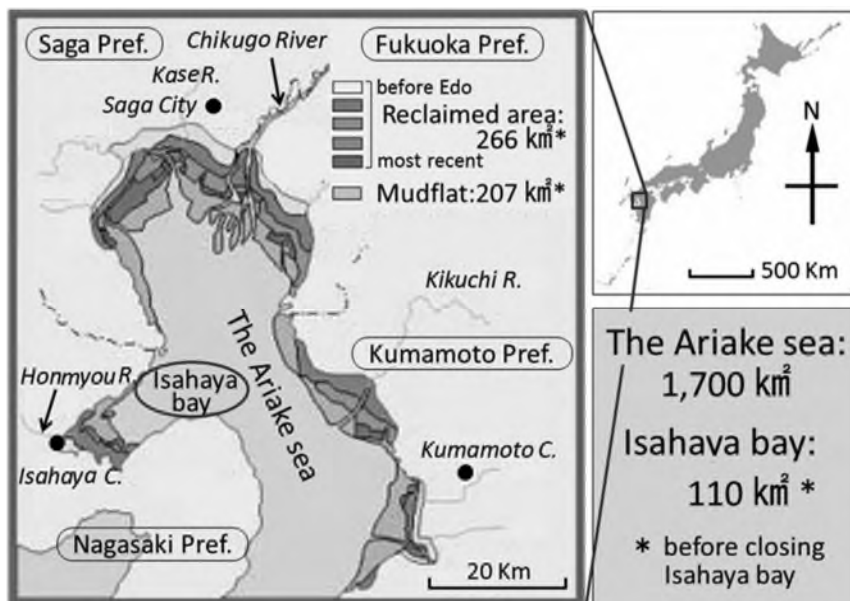


Figure 3. Reclamations in the Ariake Sea (Ota, 2018)

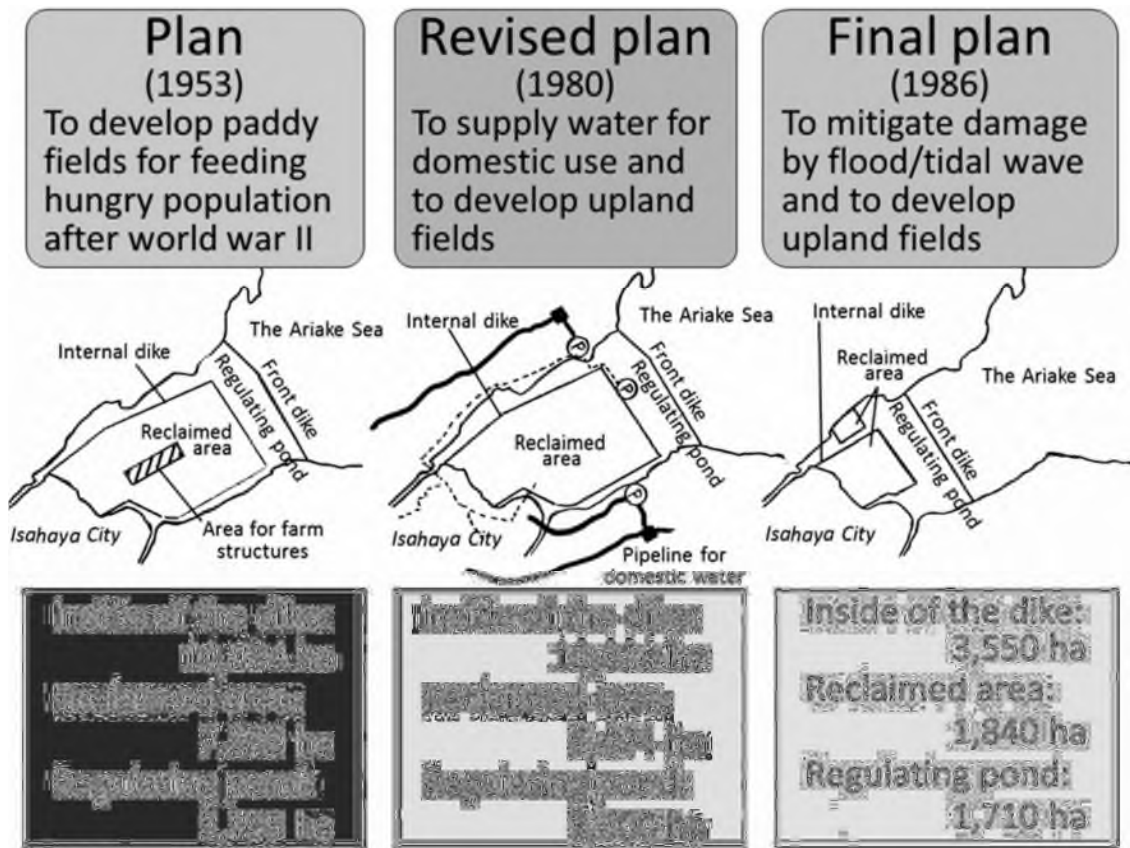


Figure 4. Development of plans for closing off of Isahaya Bay and the reclamation of Isahaya Polder (Ota, 2018)



Figure 5. Aerial view of Isahaya Polder and its surroundings (Ota, 2016)

General characteristics of the polder in Japan are shown in Table I. Table II shows the characteristics of the water management and flood protection systems of the existing polders.

### Proposed polders

No proposed polders have been identified.

## Location of the polders in Japan as shown on the World polder map

The location of the polders in Japan is shown in Figure 6.

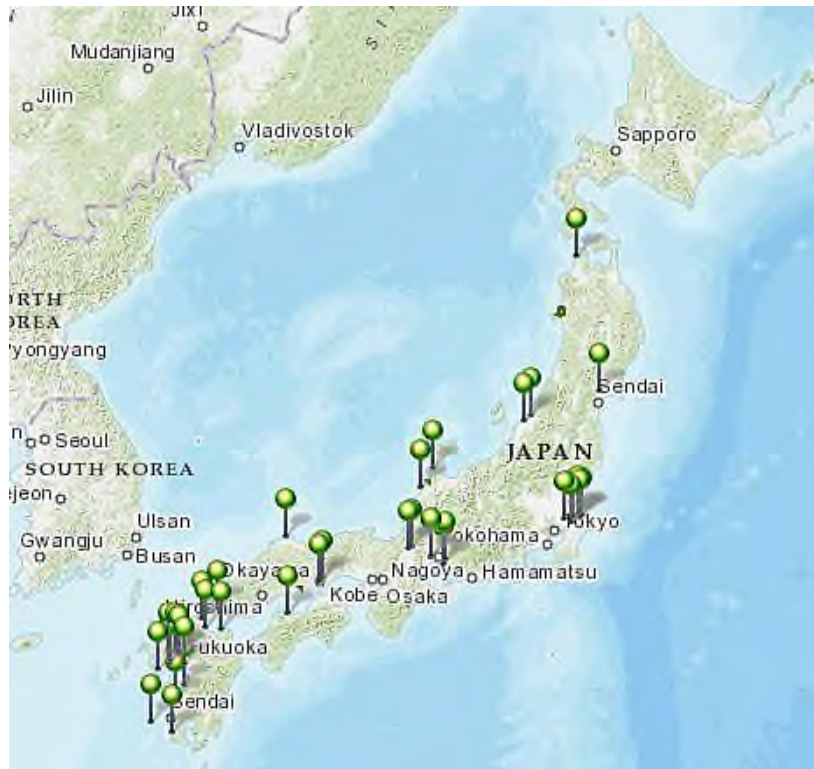


Figure 6. Location of the polders in Japan (source: esri – Batavialand)

The pictures by Prof. Adriaan Volker are shown in Table III. The pictures by Prof. Bart Schultz are shown in Table IV

## References

- Alphen, J. van and Q. Lodder, 2006. Integrated flood management: experiences of 13 countries with their implementation and day-to-day management. *Irrigation and Drainage*. 55.S1. 159-171.
- Centre for Civil Engineering Research and Codes (CUR) and Ministry of Transport, Public Works and Water management, 1993. *Hydrology and water management of deltaic areas*. CUR report 93-5. Gouda, the Netherlands.
- Graaf, R. de and F. Hooimeijer, 2008. *Urban water in Japan*. Taylor & Francis. London/Leiden/New York/Philadelphia/Singapore.
- Group Polder Development, Department of Civil Engineering, Delft University of Technology. *Polders of the World, 1982. Compendium of polder projects*. Delft, the Netherlands.
- Jansen, P.P. and A. Volker. *Some remarks on impoldering in Japan*.
- Jansen, P.P. and A. Volker. *Some remarks on impoldering in Japan*. (in Japanese)
- Kamibayashi, Yoshiyuki, 2000. *Footprints and Achievements of J. de Rijke and G.A. Escher*. University of Tokyo, Institute of Industrial Science. Tokyo, Japan.
- Kitao, Yasunori, 2008. *The modern agriculture village on the Hachirogata-polder in Japan*. Paper in the 10<sup>th</sup> International Docomono Conference – The Challenge of Change.
- Kitao, Yasunori. *The contribution of modern architects to the village project on the polder: building a social welfare state through the rural development project*.
- Kumamoto Agricultural Land Bureau, 1956. *Report of investigation on Nagasaki reclamation project*.
- Kuniyasu, Norio and Kouichi Kuwabara, 2007. *Management of closed-off tidal basins in Japan*. In: Rijkswaterstaat. Management of closed-off tidal basins. International expert meeting 9 to 12 October 2017. The Netherlands.

- Kuwano, S., 1983. *Effective protection of polder dike*. In: Proceedings International Symposium 'Polders of the World'. International Institute for Land Reclamation and Improvement, Wageningen, the Netherlands.
- Mac Lean, J., 1975. De betekenis van Jan Karel van den Broek (1814-1865) t.a.v. de introductie van de westerse technologie in Japan. *De Ingenieur*. Jaargang 87, nr. 30/31. 24 juli. 594-605
- Ministry of Agriculture and Forestry, Agricultural Land Bureau, Land Reclamation Section, Construction Division, 1953. *A report on the sea coast and marsh land reclamation in Japan*.
- Nakayama, K., K. Onishi and Y. Sugawara, 2010. *Impact of sea level rise on inundation in the Kushiro Wetland*. In: Proceedings of the International Symposium on Coastal Zones and Climate Change: Assessing the Impacts and Developing Adaptation Strategies, 12 -13 April, Monash University Gippsland, Churchill, Victoria, Australia.
- Okuda, Setsuo, 1968. On the change in salinity distribution and bottom topography after the closing of the mouth of Kojima Bay. *Bull. Disas. Prev. Res. Inst. Kyoto Univ.* Vol. 18, Part 1. No. 132, May.
- Ota, S., 2016. *Towards sustainable land and water development. Focus on social aspects*. Powerpoint presentation. International Short Course. Resilience and adaptations to climate change for sustainable management of tidal areas. 1-5 August 2016, Tainan, Taiwan.
- Ota, S., 2018. Key factors in handling conflicts in the Isahaya Bay Land Reclamation Project, Japan: a case study focusing on social aspects. *Irrigation and Drainage*. 67.S1. 96-104.
- Sasaki, Shiso, 1959. *Land development and improvement projects in Japan*. Agriculture, Forestry and Fisheries Productivity Conference.
- Schultz, B., L. Hayde, Park Sang-Hyun and K. Tanaka, 2013. Global inventory of closed-off tidal basins and developments after the closure. *Irrigation and Drainage*. 62 (suppl. 1) 107-123.
- Shibuya, Toshisane, 1954. *History of tidal land reclamation carried out by the Higo Clan*. Kumamoto yearbook.
- Shigeyoshi Gotoh and Hiroshi Koga, 1977. Mercury in rice soils developed on Saga polder lands, Northern Kyushu, Japan. *Plant and Soil*. Volume 47, Issue 1, pp 49–61.
- Shigeyoshi Gotoh and Hiroshi Koga, 1983. Soil organic matter and nitrogen contents of saga polder rice fields: Changes with depth and time. *Soil Science and Plant Nutrition*. Vol. 29, no. 1. 47-61.
- Tanji, Hajime, 2015. *Environmental hazard in reclaimed land in Japan from the point of view of technology transfer from Holland*. International Workshop of the Working Group on Sustainable Development of Tidal areas on Environmental hazards in tidal areas. 13 October 2015. Montpellier, France.
- Tohno, L., 1994. *Land subsidence problems in Japan*. In: N. Miura, M.R. Madhav and K. Koga. Lowlands Development and Management. Saga, Japan.
- United Nations, Department of Economic and Social Affairs, Population Division. 2019. *World Population Prospects, medium prognosis. The 2019 revision*. New York, USA.
- Yoneda, Shigeo, 1964. *Genetic and edaphologic studies of the polder soils in Japan*. Reports of the Laboratory of Soils and Fertilizers, Faculty of Agriculture, Okayama University, Japan (in Japanese).
- Yoshihiko Ogino and Shinsuke Ota, 2007. The evolution of Japan's rice field drainage and development of technology. *Irrigation and Drainage*. 56.S1. 69-80.

*Bart Schultz*

*Lelystad, October 2023*

Table I. General characteristics of existing polders in Japan

No.	Name	Reclamation	Area in ha	Type *)	Latitudes	Longitudes	Elevation in m+MSL	Land use
1	Jusanko Polder	1969	1,423	LGS	41° 00' N	140° 25' E	0	Agriculture
2	Hachirogata Polder	1957-1972	17,200	LGS	40° 00' N	140° 00' E	-1	Agriculture
3	Nagorenuma Polder	1970	66	RLL	38° 14' N	140° 59' E	-7	Agriculture
4	Fukushimagata Polder	1975	186	LGS	37° 55' N	139° 15' E	-1	Agriculture
5	Yoroigata Polder	1968	242	LGS	37° 45' N	138° 56' E	0	Agriculture
6	Takanama Polder	1970	1,272	RLL	35° 54' N	140° 20' E	1	Agriculture
7	Nobukata Polder	1966	283	LGS	35° 55' N	140° 31' E	0	Agriculture
8	Nishino Polder	1967	193	LGS	35° 57' N	140° 28' E	-2.7 to -2.0 Tokyo level	Agriculture
9	Morido Polder	1955	572	LGS	35° 54' N	140° 28' E	1	Agriculture
10	Inbanuma Polder	1968	781	RLL	35° 49' N	140° 16' E	-3	Agriculture
11	Teganuma Polder	1968	435	RLL	35° 51' N	140° 05' E	-1	Urban
12	Tomochigata Polder	1968	306	RLL	36° 55' N	136° 49' E	1	Agriculture
13	Kahokugata Polder	1970	1,158	LGS	36° 41' N	136° 41' E	-2	Agriculture
14	Kagabanko Polder	1969	498	RLL	36° 30' N	136° 29' E	4	Agriculture
15	Hekinan Polder	1956	159	RLL	34° 54' N	136° 02' E	2	Multiple land use
16	Iura Polder	1962	141	LGS	34° 57' N	136° 59' E	-3	Agriculture
17	Nabeta Polder	1963	374	RLL	35° 03' N	136° 46' E	-6	Multiple land use
18	Kisozaki Polder	1970	394	LGS	35° 04' N	136° 44' E	-3	Multiple land use
19	Oonakanoko Polder	1968	1,145	RLL	35° 19' N	136° 16' E	86	Multiple land use
20	Tsudauchiko Polder	1971	119	RLL	35° 13' N	136° 09' E	91	Multiple land use
21	Nakaumi Polder	1968-2002	2,418	LGS	35° 31' N	133° 08' E	8	Rural area
22	Kojimawan Polder	1963	1,057	RLL	34° 38' N	134° 01' E	6	Rural area
23	Takanashigawa Polder	1962	443	RLL	34° 33' N	133° 54' E	6	Agriculture
24	Kasaokawan Polder	1962	1,187	LGS	34° 29' N	133° 29' E	-4	Rural area
25	Niuchinada Polder	1967	309	LGS	33° 55' N	133° 07' E	1	Urban
26	Ajisu Polder	1964	239	LGS	34° 02' N	131° 23' E	1	Rural area
27	Asa Polder	1962	144	LGS	34° 01' N	131° 08' E	-1	Agriculture
28	Sone Polder	1963	105	LGS	33° 44' N	131° 01' E	3	Rural area
29	Nakatsu Polder	1971	381	RLL	33° 36' N	131° 12' E	4	Rural area
30	Nishikunisaki Polder	1970	475	LGS	33° 35' N	131° 26' E	1	Agriculture
31	Shiranui Polder	1967	373	LGS	32° 37' N	130° 38' E	0	Agriculture
32	Kongo Polder	1961	337	LGS	32° 30' N	130° 34' E	0	Multiple land use

33	Izumi Polder	1965	291	LGS	32° 06' N	130° 17' E	0	Agriculture
34	Yokakuwan Polder		149	LGS	31° 38' N	129° 42' E	6	Agriculture
35	Ocura Polder	1972	275	LGS	31° 24' N	130° 13' E	0	Agriculture
36	Yokoshima Polder	1974	505	LGS	32° 51' N	130° 32' E	-1	Agriculture
37	Miike Polder	1967	374	LGS	33° 04' N	130° 26' E	6	Multiple land use
38	Yamato Polder	1971	271	LGS	33° 06' N	130° 24' E	6	Multiple land use
39	Saga Polder		653	LGS	33° 09' N	130° 18' E	6	Multiple land use
40	Ariake Polder	1972	1,323	LGS	33° 10' N	130° 12' E	6	Multiple land use
41	Nagasaki-nambu Polder		5,573	LGS	32° 57' N	130° 12' E	2	Multiple land use
42	Isahaya Polder	2018	1,840	LGS	32°51' N	130° 10' E	3	Multiple land use
<i>Polders not shown in Figure 1</i>								
	Deshima Polder	1634	10	LGS	32°45' N	129° 52' E	-3	Urban
	Polders in Kojima Bay	1868-1961	51,400	LGS	34°46' N	134° 47' E	0	Agriculture
	Total		97,087					

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

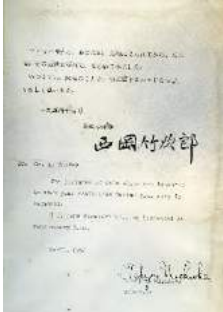









Table II. Characteristics of the water management and flood protection system of existing polders in Japan

No.	Name	Design criteria in chance of occurrence/year							
		Water management					Flood protection		
		Drainage				Irrigation	Rural	Urban	
		Type	Design criterion	Percentage of open water	Discharge capacity				
m <sup>3</sup> /s	mm/day								
2	Hachirogata Polder	LGS				450	225		

Table III. Pictures of polders and lowlands in Japan by Prof. Adriaan Volker

*The pictures EV-VII-1 until EV-VII-47 come from a picture album that has been made at the occasion of the visit of Dr. P.P. Jansen and Prof. Adriaan Prof. Adriaan Volker to Nagasaki, April 1954. the book has been offered by the Governor Takejiro Nishioka. the picture album is in property of Mrs. Elsbeth Volker. Although not mentioned in the book it deals most probably with the envisaged construction of the Hachirogata Polder. However, also the Isahaya polder is being mentioned (picture EV-VII-11)*

			
<p>EV 001/EV-VII-1*) Picture of the letter signed by the Governor Takejiro Nishioka</p>	<p>EV 002/EV-VII-2 The group embarks at the Hayabusa (patrol boat of the Nagasaki Prefecture) of Takezaki for a visit to the site</p>	<p>EV 003/EV-VII-3 Visit to the site</p>	<p>EV 004/ EV-VII-4 Dr. P.P. Jansen and Prof. Adriaan Volker listen to the explanation of the Governor Takejiro Nishioka</p>
			
<p>EV 005/EV-VII-5 Explanation by an official of the Prefecture who is responsible for the project</p>	<p>EV 006/EV-VII-6 Welcome by the population of Yuemachi with the Netherlands and the Japanese flag</p>	<p>EV 007/EV-VII-7 Dr. P.P. Jansen laughing at the welcome by the population of Yuemachi</p>	<p>EV 008/EV-VII-8 Welcome by the children of the Oemura primary and secondary schools</p>

\*) Batavialand/original

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)

			
EV 009/EV-VII-9 Arrival of the group at the Shiranuhi bridge	EV 010/EV-VII-10 Inspection of the site from the Shiranuhi bridge	EV 011/EV-VII-11 The group arrives in the Isahaya Polder that is managed by the government	EV 012/EV-VII-12 Dr. P.P. Jansen and Prof. Adriaan Volker inspect a soil sample that has been taken from the sea bottom
			
EV 013/EV-VII-13 Dr. P.P. Jansen shakes hands with the vice-governor Sato at the entrance of the building of the Nagasaki Prefecture	EV 014/EV-VII-14 The group visits the management of the Nagasaki Prefecture	EV 015/EV-VII-15 Formal speech by Governor Nishioka during the reception	EV 016/EV-VII-16 Dr. P.P. Jansen expresses his thanks during the reception
			
EV 017/EV-VII-17 Mrs. Matsuko Nishioka, daughter of Governor Nishioka, presents flowers to Dr. P.P. Jansen	EV 018/EV-VII-18 Oranda manzai (dans), very exotic	EV 019/EV-VII-19 Oranda manzai (dans), very exotic	EV 020/EV-VII-20 Restauration of the Dutch company in Dejima

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)

			
<p>EV 021/EV-VII-21 The house of <i>Madam Butterfly</i> with a view over the harbour</p>	<p>EV 022/EV-VII-22 Urakami catholic church that has been destroyed by the nuclear bomb</p>	<p>EV 023/EV-VII-23 Part of the Urakami catholic church that just has been escaped from the devastation</p>	<p>EV 024/EV-VII-24 Dr. P.P. Jansen takes a look at the papers that have been left by Siebold in the library of the Nagasaki Prefecture</p>
			
<p>EV 025/EV-VII-25 Dr. P.P. Jansen reads in a book that has been left by Dutch pioneers</p>	<p>EV 026/EV-VII-26 Round table conference of the people involved in the office of the Nagasaki Prefecture</p>	<p>EV 027/EV-VII-27 Dr. P.P. Jansen and Prof. Adriaan Volker have the overview over Nagasaki from the roof of the office of the Nagasaki Prefecture</p>	<p>EV 028/EV-VII-28 Dr. P.P. Jansen and Prof. Adriaan Volker visit the Dutch cimetiry to express respect for the dead people</p>
			
<p>EV 029/EV-VII-29 Dr. P.P. Jansen and Prof. Adriaan Volker visit the Dutch cimetiry to express respect for the dead people</p>	<p>EV 030/EV-VII-30 Dr. P.P. Jansen and Prof. Adriaan Volker visit the Dutch cimetiry to express respect for the dead people</p>	<p>EV 031/EV-VII-31 Dr. P.P. Jansen and Prof. Adriaan Volker visit the Dutch cimetiry to express respect for the dead people</p>	<p>EV 032/EV-VII-32 Inspection of Ariake Sea from Taisho-mura, Shimabara isle</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)




			
<p>EV 033/EV-VII-33 People of Kojiro-mura welcome Dr. P.P. Jansen and Prof. Adriaan Volker</p>	<p>EV 034/EV-VII-34 Lunch in the Kanko hotel, Unzen, that is known as the park of the world</p>		
			
<p>EV 035/EV-VII-35, April 1954</p> <p>Group picture in the Kanko hotel, from left to right:</p> <ul style="list-style-type: none"> <li>• <i>front row</i>: Technical official Suzuki (Ministerie of Agriculture and Forestry), Prof. Adriaan Volker, Governor Takejiro Nishioka (Nagasaki Prefecture), Dr. P.P. Jansen, Chief Kiyono (Technical Section, Ministry of Agriculture and Forestry), Prof. Takada (Kyushu Univeristy);</li> <li>• <i>back row</i>: interpreter Tazaki (Ministry of Agriculture and Forestry), Director Yamazaki (Agriculture Division, Government Nagasaki Prefecture), Technical official Matsuo (Government Nagasaki Prefecture), Director Oya (Planning Division, Ministry of Agriculture and Forestry), Chief Aoyama (Section Rural Area, Government Nagasaki Prefecture), interpreture Fukushima (Government Nagasaki Prefecture), Technical official Deguchi (Ministry of Agriculture and Forestry), interpreter Aoki (Ministry of Agriculture and Forestry), Chief Takahama (Secretariat, Government Nagasaki Prefecture)</li> </ul>			

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
<p>EV 036/EV-VII-36 From left to right at the entrance of the Kanko Hotel: Prof. Adriaan Volker, Governor Nishioka and Dr. P.P. Jansen.</p>	<p>EV 037/EV-VII-37 Visit to the hot sulphur well of Unzen</p>	<p>EV 038/EV-VII-38 Visit to the hot sulphur well of Unzen</p>	<p>EV 039/EV-VII-39 Visit to the hot sulphur well of Unzen</p>
			
<p>EV 040/EV-VII-40 The group arrives in the harbour of Shimabara after a three day field visit</p>	<p>EV 041/EV-VII-41 Dr. P.P. Jansen says farewell to the Governor Nishioka</p>	<p>EV 042/EV-VII-42 Dr. P.P. Jansen receives a paper roll for the farewell</p>	<p>EV 043/EV-VII-43 The boat departs with various paper rolls in the hands</p>
			
<p>EV 044/EV-VII-44 The boat departs, the paper rolls become longer</p>	<p>EV 045/EV-VII-45 Finally the boat departs straight to Misumi</p>	<p>EV 046/EV-VII-46 Director Yamazaki, of the Agriculture Division, gives the flowers to Mrs. Matsuko, daughter of Governor Nishioka, offered by Dr. P.P. Jansen</p>	<p>EV 047/EV-VII-047 Population along the road, last one of April 1954</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
<p>C2 1 003/C.2.1.3 Hachirogata Polder, dredging of a canal, 1962</p>	<p>D2 1 027/D.2.1.27 Dike, in the Nabeta Polder, 1963</p>	<p>D2 1 028/D.2.1.28 Map and landscape, in the Nabeta Polder, 1963</p>	<p>D2 1 029/D.2.1.29 Irrigation canal and drain, in the Nabeta Polder, 1963</p>
			
<p>D2 1 030/D.2.1.30 Road and probably drain, in the Nabeta Polder, 1963</p>	<p>D2 1 031/D.2.1.31 Dike, Nabeta Polder, 1963</p>	<p>D2 1 032/D.2.1.32 Dike, irrigation canal and road, Nabeta Polder, 1963</p>	<p>D2 1 033/D.2.1.33 Village, Nabeta Polder, 1963</p>
			
<p>D2 1 034/D.2.1.34 Dike, Nabeta Polder, 1963</p>	<p>D2 1 035/D.2.1.35 Dike, Nabeta Polder, 1963</p>	<p>D2 1 036/D.2.1.36 Village, Nabeta Polder, 1963</p>	<p>D2 1 037/D.2.1.37 Rice harvest, Nabeta Polder, 1963</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)






			
D2 1 038/D.2.1.38 Landscape with rice harvest, Nabeta Polder, 1963	D2 1 039/D.2.1.39 Dike and outlet structure, Nabeta Polder, 1963	D2 1 040/D.2.1.40 Landscape, Nabeta Polder, 1963	D2 2 041/D.2.2.41 Boats at the lake, 1963
			
D2 2 042/D.2.2.42 Landscape, Nabeta Polder, 1963	D2 2 043/D.2.2.43 Basin, near, near, or in Nabeta Polder, 1963	D2 2 044/D.2.2.44 Dike, Nabeta Polder, 1963	D2 2 045/D.2.2.45 Nice bridge, 1963
			
D2 2 046/D.2.2.46 Dike slope, Nabeta Polder, 1963	D2 2 047/D.2.2.47 Dike, Nabeta Polder, 1963	D2 2 048/D.2.2.48 Building, Nabeta Polder, 1963	D2 3 004/D.2.3.4 Dike with road on top, presumably Hachirogata Polder, possibly also 1963



Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
<p>D2 3 005/D.2.3.5 Dike with road on top, presumably Hachirogata Polder, possibly also 1963</p>	<p>D2 3 006/D.2.3.6 Bank protection along river, possibly also 1963</p>	<p>D2 3 007/D.2.3.7 Dike, presumably Hachirogata Polder, possibly also 1963</p>	<p>D2 3 008/D.2.3.8 Bridges over river in lowland area, possibly also 1963</p>
			
<p>D2 3 009/D.2.3.9 View at a river, possibly also 1963</p>	<p>D2 3 010/D.2.3.10 Discharge sluice, possibly also 1963</p>	<p>D2 3 011/D.2.3.11 Discharge sluice, possibly also 1963</p>	<p>D2 3 012/D.2.3.12 Discharge sluice, possibly also 1963</p>
			
<p>D2 3 013/D.2.3.13 Discharge sluice, possibly also 1963</p>	<p>D2 3 014/D.2.3.14 Discharge sluice, possibly also 1963</p>	<p>D2 3 015/D.2.3.15 Discharge sluice, possibly also 1963</p>	<p>D2 3 016/D.2.3.16 Discharge sluice, possibly also 1963</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
D2 3 018/D.2.3.18 Dike, presumably Hachirogata Polder, possibly also 1963	D2 3 019/D.2.3.19 Probably pumping station, possibly also 1963	D2 3 020/D.2.3.20 Discharge sluice, possibly also 1963	D2 3 021/D.2.3.21 Commemoration stone, possibly also 1963
			
D2 3 022/D.2.3.22 Bridge over river, possibly also 1963	C2 1 004/C.2.1.4 Hachirogata Polder, presumably dredged main canal, 1964	C2 1 005/C.2.1.5 Dike and falling dry of the Hachirogata Polder, 1964	C2 1 006/C.2.1.6 Dike and falling dry of the Hachirogata Polder, 1964
			
C2 1 007/C.2.1.7 Dike and Hachirogata Polder, 1964	C2 1 008/C.2.1.8 Dike and falling dry of the Hachirogata Polder, 1964	C2 1 009/C.2.1.9 Falling dry of the Hachirogata Polder, 1964	C2 1 010/C.2.1.10 Dike and falling dry of the Hachirogata Polder, 1964

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
C2 1 011/C.2.1.11 Rice, probably in the Hachirogata Polder, 1964	C2 3 001/C.2.3.1 Dike of the Hachirogata Polder, 1964	C2 3 002/C.2.3.2 Falling dry of the Hachirogata Polder, 1964	C2 3 003/C.2.3.3 Dredger in the Hachirogata Polder, 1964
			
C2 3 004/C.2.3.4 Main canal in the Hachirogata Polder, 1964	C2 3 005/C.2.3.5 Discharge sluice Hachirogata Reservoir, 1964	C2 3 006/C.2.3.6 Falling dry of the Hachirogata Polder, 1964	C2 3 007/C.2.3.7 Dike of the Hachirogata Polder, 1964
			
C2 3 008/C.2.3.8 Dike of the Hachirogata Polder and map, 1964	C2 3 009/C.2.3.9 Dike of the Hachirogata Polder, 1964	C2 3 010/C.2.3.10 Discharge sluice of the lake around the Hachirogata Polder, 1964	C2 3 011/C.2.3.11 Landscape in the Hachirogata Polder, 1964

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
C2 3 012/C.2.3.12 Landscape in the Hachirogata Polder, 1964	C2 3 013/C.2.3.13 Lake around the Hachirogata Polder, 1964	C2 3 014/C.2.3.14 Landscape in the Hachirogata Polder, 1964	C2 3 015/C.2.3.15 Dike of the Hachirogata Polder, 1964
			
C2 3 016/C.2.3.16 Dike of the Hachirogata Polder and building, 1964	C2 3 017/C.2.3.17 Dike of the Hachirogata Polder with probably an observation point to determine the subsidence, 1964	C2 3 018/C.2.3.18 Dredged main canal in the Hachirogata Polder, 1964	C2 3 019/C.2.3.19 Dredged main canal in the Hachirogata Polder, 1964
			
C2 3 020/C.2.3.20 Pumping station (irrigation or drainage) in the dike around the Hachirogata Polder, 1964	C2 3 021/C.2.3.21 Main canal in the Hachirogata Polder, 1964	C2 3 022/C.2.3.22 Dike of the Hachirogata Polder, 1964	C2 3 023/C.2.3.23 Probably pumping station in the dike of the Hachirogata Polder, 1964

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)





			
C2 3 024/C.2.3.24 Lake around the Hachirogata Polder, 1964	C2 3 025/C.2.3.25 Landscape in the Hachirogata Polder, 1964	C2 3 026/C.2.3.26 Landscape in the Hachirogata Polder, 1964	C2 3 027/C.2.3.27 Dike of the Hachirogata Polder, 1964
			
C2 3 028/C.2.3.28 Dike of the Hachirogata Polder, 1964	C2 3 029/C.2.3.29 Dike of the Hachirogata Polder, 1964	C2 3 030/C.2.3.30 Dike of the Hachirogata Polder, 1964	C2 3 031/C.2.3.31 Boats near the dike of the Hachirogata Polder, 1964
			
C2 3 032/C.2.3.32 Dike of the Hachirogata Polder and building, 1964	C2 3 033/C.2.3.33 Dike of the Hachirogata Polder, 1964	C2 3 034/C.2.3.34 Landscape Hachirogata Polder, 1964	C2 3 035/C.2.3.35 Landscape Hachirogata Polder, 1964

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)











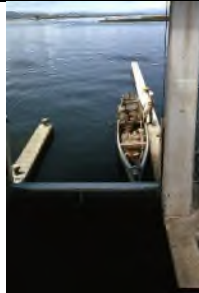

			
C2 3 036/C.2.3.36 Landscape Hachirogata Polder, 1964	C2 3 037/C.2.3.37 Landscape Hachirogata Polder, 1964	C2 3 038/C.2.3.38 Landscape near the Hachirogata Polder, 1964	C2 3 039/C.2.3.39 Landscape near the Hachirogata Polder, 1964
			
C2 3 040/C.2.3.40 Landscape near the Hachirogata Polder, 1964	C2 4 041/C.2.4.41 Landscape near the Hachirogata Polder, 1964	C2 4 042/C.2.4.42 Detail discharge sluice Hachirogata Reservoir, 1964	C2 4 043/C.2.4.43 Detail discharge sluice Hachirogata Reservoir, 1964
			
C2 4 044/C.2.4.44 Bridge to Hachirogata Polder, 1964	C2 4 045/C.2.4.45 Bridge to Hachirogata Polder, 1964	C2 4 046/C.2.4.46 Detail discharge sluice Hachirogata Reservoir with boat, 1964	C2 4 047/C.2.4.47 Detail discharge sluice Hachirogata Reservoir, 1964

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
<p>C2 4 048/C.2.4.48 Lake surrounding the Hachirogata Polder, 1964</p>	<p>C2 4 049/C.2.4.49 Drainage pumping station in the dike around the Hachirogata Polder, 1964</p>	<p>C2 4 050/C.2.4.50 Dike of the Hachirogata Polder, 1964</p>	<p>C2 4 051/C.2.4.51 Dredger in the Hachirogata Polder, 1964</p>
			
<p>C2 4 052/C.2.4.52 Dredger in the Hachirogata Polder, 1964</p>	<p>C2 4 053/C.2.4.53 Dike of the Hachirogata Polder, 1964</p>	<p>C2 4 054/C.2.4.54 Dike of the Hachirogata Polder, 1964</p>	<p>C2 4 055/C.2.4.55 Lake surrounding the Hachirogata Polder, 1964</p>
			
<p>D2 3 001/D.2.3.1 Osaka, 1969</p>	<p>D2 3 002/D.2.3.2 Osaka, 1969</p>	<p>D2 3 003/D.2.3.3 Osaka, 1969</p>	<p>C2 4 056/C.2.4.56 Dike and landscape Hachirogata Polder, 1975</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)









			
C2 4 057/C.2.4.57 Dike and landscape Hachirogata Polder, 1975	C2 4 058/C.2.4.58 Dike and landscape Hachirogata Polder, 1975	C2 4 059/C.2.4.59 Basin in the Hachirogata Polder, 1975	C2 4 060/C.2.4.60 Pole with text in the Hachirogata Polder, 1975
			
C2 4 061/C.2.4.61 Main canal in the Hachirogata Polder, 1975	C2 4 062/C.2.4.62 Information panel in the Hachirogata Polder, 1975	C2 4 063/C.2.4.63 Commemoration stone in the Hachirogata Polder, 1975	C2 4 064/C.2.4.64 Commemoration stone in the Hachirogata Polder, 1975
			
C2 4 065/C.2.4.65 Road and buildings in the Hachirogata Polder, 1975	C2 4 066/C.2.4.66 Houses in the Hachirogata Polder, 1975	C2 4 067/C.2.4.67 Houses in the Hachirogata Polder, 1975	C2 4 068/C.2.4.68 Buildings in the Hachirogata Polder, 1975



Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)

			
C2 4 069/C.2.4.69 Houses in the Hachirogata Polder, 1975	C2 4 070/C.2.4.70 Buildings in the Hachirogata Polder, 1975	C2 4 071/C.2.4.71 Bridge and pumping station in the Hachirogata Polder, November 1989	C2 4 072/C.2.4.72 Dike and landscape Hachirogata Polder, November 1989
			
C2 4 073/C.2.4.73 Dike Hachirogata Polder, November 1989	C2 4 074/C.2.4.74 Pumping station Hachirogata Polder, November 1989	C2 4 075/C.2.4.75 Bridge and pumping station in the Hachirogata Polder, November 1989	C2 4 076/C.2.4.76 Dike and landscape Hachirogata Polder, November 1989
			
C2 4 077/C.2.4.77 Main canal in the Hachirogata Polder, November 1989	C2 4 078/C.2.4.78 Main canal in the Hachirogata Polder, November 1989		

Table 1. Pictures and slides by Prof. Adriaan Volker on the polders in Japan (continued)












			
<p>A2 063/I.2.63 Barrier in the mouth of Tone River to prevent high water levels during typhoons and salt water intrusion. Total length of the barrier is 860 m</p>	<p>A1 001/XI.1.1 Prof. Adriaan Volker</p>	<p>A2 001/XI.2.1 Prof. Volker third row, just left of the middle between Japanese and other colleagues</p>	<p>A2 002/XI.2.2 Prof. Volker and Mr. Henny Colenbrander in discussion with an unknown colleague</p>
			
<p>A2 003/XI.2.3 Group picture with Prof. Volker and Mr. Henny Colenbrander</p>	<p>A2 004/XI.2.4 Prof. Volker in discussion</p>	<p>A2 005/XI.2.5 Prof. Volker and Mr. Henny Colenbrander</p>	<p>A2 005 A/XI.2.5A Prof. Volker during the diner</p>
			
<p>A2 005 B/XI.2.5B Prof. Volker and many Japanese colleagues in a boat</p>	<p>A2 005 A/XI.2.5C Prof. Volker during the diner</p>	<p>A2 6 001/A.2.6.1 Prof. Volker and others behind his commemoration stone in Japan</p>	<p>A2 6 002/A.2.6.2 Prof. Volker behind his commemoration stone in Japan</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
<p>A2 6 002a/A.2.6.2a Prof. Volker and others in front of his commemoration stone in Japan</p>	<p>C2 1 001/C.2.1.1 General maps area Hachirogata Polder</p>	<p>C2 1 002/C.2.1.2 General maps area Hachirogata Polder</p>	<p>C2 1 012/C.2.1.12 Houses in the Hachirogata Polder</p>
			
<p>C2 1 013/C.2.1.13 Houses in the Hachirogata Polder</p>	<p>C2 1 014/C.2.1.14 Houses in the Hachirogata Polder</p>	<p>C2 1 015/C.2.1.15 Houses in the Hachirogata Polder</p>	<p>C2 1 016/C.2.1.16 Houses in the Hachirogata Polder</p>
			
<p>C2 1 017/C.2.1.17 Distribution structure in an irrigation canal in the Hachirogata Polder</p>	<p>C2 1 018/C.2.1.18 Probably field inlet for irrigation water in the Hachirogata Polder</p>	<p>C2 1 019/C.2.1.19 Discharge sluice of the reservoir surrounding the Hachirogata Polder</p>	<p>C2 1 020/C.2.1.20 Discharge sluice of the reservoir surrounding the Hachirogata Polder</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)




			
C2 1 021/C.2.1.21 Dike of the Hachirogata Polder	C2 1 022/C.2.1.22 Possibly supply of irrigation water to the Hachirogata Polder	C2 1 023/C.2.1.23 Irrigation canal or drain in the Hachirogata Polder	C2 1 024/C.2.1.24 View at the Hachirogata Polder
			
C2 1 025/C.2.1.25 Dike of the Hachirogata Polder	C2 1 026/C.2.1.26 View at the Hachirogata Polder	C2 1 027/C.2.1.27 Lake along the Hachirogata Polder	C2 1 028/C.2.1.28 Bridge to Hachirogata Polder
			
C2 1 029/C.2.1.29 Dike of the Hachirogata Polder	C2 1 030/C.2.1.30 Road in the Hachirogata Polder	C2 1 031/C.2.1.31 Irrigation canal in the Hachirogata Polder	C2 1 032/C.2.1.32 Irrigation canal in the Hachirogata Polder

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)












			
<p>C2 1 033/C.2.1.33 Dike of the Hachirogata Polder</p>	<p>C2 1 034/C.2.1.34 Inlet for irrigation water in the Hachirogata Polder</p>	<p>C2 1 035/C.2.1.35 Dike crossing for the inlet of irrigation water through the dike around the Hachirogata Polder</p>	<p>C2 1 036/C.2.1.36 Irrigation canal in the Hachirogata Polder</p>
			
<p>C2 1 037/C.2.1.37 Irrigation canal in the Hachirogata Polder</p>	<p>C2 1 038/C.2.1.38 Pavement in the Hachirogata Polder</p>	<p>C2 1 039/C.2.1.39 Dike of the Hachirogata Polder</p>	<p>C2 1 040/C.2.1.40 Collector drain in the Hachirogata Polder</p>
			
<p>C2 2 041/C.2.2.41 Houses in the Hachirogata Polder</p>	<p>C2 2 042/C.2.2.42 Field in the Hachirogata Polder</p>	<p>C2 2 043/C.2.2.43 Buildings in the Hachirogata Polder</p>	<p>C2 2 044/C.2.2.44 Buildings in the Hachirogata Polder</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)








			
C2 2 045/C.2.2.45 Road and buildings in the Hachirogata Polder	C2 2 046/C.2.2.46 Buildings in the Hachirogata Polder	C2 2 047/C.2.2.47 Poster with the dike cross-section in Hachirogata Polder	C2 2 048/C.2.2.48 Buildings in the Hachirogata Polder
			
C2 2 049/C.2.2.49 Irrigation canal in the Hachirogata Polder	C2 2 050/C.2.2.50 Irrigation canal in the Hachirogata Polder	C2 2 051/C.2.2.51 Irrigation canal in the Hachirogata Polder	C2 2 052/C.2.2.52 Road with road ditch in the Hachirogata Polder
			
C2 2 053/C.2.2.53 Irrigation canal in the Hachirogata Polder	C2 2 054/C.2.2.54 Border lake of the Hachirogata Polder	C2 2 055/C.2.2.55 Coastal protection Hachirogata Polder during sunset	C2 2 056/C.2.2.56 Dike of the Hachirogata Polder

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)












			
C2 2 057/C.2.2.57 Dike with presumably inlet structure of Hachirogata Polder	C2 2 058/C.2.2.58 Presumably inlet structure of the Hachirogata Polder	C2 2 059/C.2.2.59 Dike of the Hachirogata Polder	C2 2 060/C.2.2.60 Access bridge to the Hachirogata Polder
			
C2 2 061/C.2.2.61 Dike of the Hachirogata Polder	C2 2 062/C.2.2.62 Dike of the Hachirogata Polder	C2 2 063/C.2.2.63 Hachirogata Polder with adjacent lake	C2 2 064/C.2.2.64 Discharge sluice Hachirogata Reservoir
			
C2 2 065/C.2.2.65 Sluice in main drain in the Hachirogata Polder	C2 2 066/C.2.2.66 Detail discharge sluice Hachirogata Reservoir	C2 2 064/C.2.2.64 Discharge sluice Hachirogata Reservoir	C2 2 068/C.2.2.68 Dike of the Hachirogata Polder

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
<p>C2 2 069/C.2.2.69 Probably the pumping station of the Hachirogata Polder</p>	<p>C2 2 070/C.2.2.70 Coastal protection Hachirogata Polder at sunset</p>	<p>C2 2 071/C.2.2.71 Bridge in the Hachirogata Polder</p>	<p>C2 2 072/C.2.2.72 Dike of the Hachirogata Polder</p>
			
<p>C2 2 073/C.2.2.73 Houses in the Hachirogata Polder</p>	<p>C2 2 074/C.2.2.74 Buildings in the Hachirogata Polder</p>	<p>C2 2 075/C.2.2.75 Pumping station and probably a drain in the Hachirogata Polder</p>	<p>C2 2 076/C.2.2.76 Irrigation canal in the Hachirogata Polder</p>
			
<p>C2 2 077/C.2.2.77 Trench plough in the Hachirogata Polder</p>	<p>C2 4 079/C.2.4.79 Village, presumably near the Hachirogata Polder</p>	<p>C2 4 080/C.2.4.80 Hachirogata Polder in the snow</p>	<p>C2 5 001/C.2.5.1 Hachirogata Polder</p>



Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
C2 5 002/C.2.5.2 Hachirogata Polder	C2 5 003/C.2.5.3 Hachirogata Polder	C2 5 004/C.2.5.4 Hachirogata Polder	C2 5 005/C.2.5.5 Hachirogata Polder
			
C2 5 006/C.2.5.6 Hachirogata Polder	C2 5 007/C.2.5.7 Hachirogata Polder	C2 5 008/C.2.5.8 Hachirogata Polder	C2 5 009/C.2.5.9 Hachirogata Polder
			
C2 5 010/C.2.5.10 Hachirogata Polder	C2 5 011/C.2.5.11 Hachirogata Polder	C2 5 012/C.2.5.12 Hachirogata Polder	C2 5 013/C.2.5.13 Hachirogata Polder

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)




			
C2 5 014/C.2.5.14 Hachirogata Polder	C2 5 015/C.2.5.15 Hachirogata Polder	C2 5 016/C.2.5.16 Hachirogata Polder	C2 5 017/C.2.5.17 Hachirogata Polder
			
C2 5 018/C.2.5.18 Hachirogata Polder	C2 5 019/C.2.5.19 Hachirogata Polder	C2 5 020/C.2.5.20 Hachirogata Polder	C2 5 021/C.2.5.21 Hachirogata Polder
			
C2 5 022/C.2.5.22 Hachirogata Polder	C2 5 023/C.2.5.23 Hachirogata Polder	C2 5 024/C.2.5.24 Hachirogata Polder	C2 5 025/C.2.5.25 Hachirogata Polder

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
C2 5 026/C.2.5.26 Hachirogata Polder	C2 5 027/C.2.5.27 Hachirogata Polder	C2 5 028/C.2.5.28 Hachirogata Polder	C2 5 029/C.2.5.29 Hachirogata Polder
			
C2 5 030/C.2.5.30 Hachirogata Polder	C2 5 031/C.2.5.31 Hachirogata Polder	C2 5 032/C.2.5.32 Hachirogata Polder	C2 5 033/C.2.5.33 Hachirogata Polder
			
C2 5 034/C.2.5.34 Hachirogata Polder	C2 5 035/C.2.5.35 Hachirogata Polder	C2 5 036/C.2.5.36 Hachirogata Polder	C2 5 037/C.2.5.37 Hachirogata Polder

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
<p>C2 5 038/C.2.5.38 Hachirogata Polder</p>	<p>C2 5 039/C.2.5.39 Hachirogata Polder</p>	<p>C2 5 040/C.2.5.40 Hachirogata Polder</p>	<p>C2 6 041/C.2.6.41 Hachirogata Polder</p>
			
<p>C2 6 042/C.2.6.42 Hachirogata Polder</p>	<p>C2 6 043/C.2.6.43 Hachirogata Polder</p>	<p>C2 6 044/C.2.6.44 Hachirogata Polder</p>	<p>C2 6 045/C.2.6.45 Hachirogata Polder</p>
			
<p>C2 6 046/C.2.6.46 Hachirogata Polder</p>	<p>C2 6 047/C.2.6.47 Hachirogata Polder</p>	<p>C2 6 048/C.2.6.48 Hachirogata Polder</p>	<p>C2 6 049/C.2.6.49 Hachirogata Polder</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)

			
<p>C2 6 050/C.2.6.50 Hachirogata Polder</p>	<p>C2 6 051/C.2.6.51 Hachirogata Polder</p>	<p>C2 6 052/C.2.6.52 Hachirogata Polder</p>	<p>C2 6 073/C.2.6.73 Commemoration stone for Prof. Adriaan Volker and Dr. P.P. Jansen</p>
			
<p>C2 6 074/C.2.6.74 Commemoration stone for Prof. Adriaan Volker and Dr. P.P. Jansen</p>	<p>C2 6 075/C.2.6.75 Commemoration stone for Prof. Adriaan Volker and Dr. P.P. Jansen</p>	<p>C2 6 076/C.2.6.76 Commemoration stone for Prof. Adriaan Volker and Dr. P.P. Jansen</p>	<p>C2 6 077/C.2.6.77 Commemoration stone for Prof. Adriaan Volker and Dr. P.P. Jansen</p>
			
<p>C2 6 078/C.2.6.78 Commemoration stone for Prof. Adriaan Volker and Dr. P.P. Jansen</p>	<p>C2 6 079/C.2.6.79 Commemoration stone for Prof. Adriaan Volker and Dr. P.P. Jansen</p>	<p>C2 6 080/C.2.6.80 Commemoration stone for Prof. Adriaan Volker and Dr. P.P. Jansen</p>	<p>D2 1 001/D2.1.1 Discharge sluices in enclosing dam Kojima Bay</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
D2 1 002/D2.1.2 Discharge sluices in enclosing dam Kojima Bay	D2 1 003/D2.1.3 Discharge sluices in enclosing dam Kojima Bay	D2 1 004/D2.1.4 Discharge sluices in enclosing dam Kojima Bay	D2 1 005/D2.1.5 Discharge sluices in enclosing dam Kojima Bay
			
D2 1 006/D2.1.6 Discharge sluices in enclosing dam Kojima Bay	D2 1 007/D2.1.7 Discharge sluices in enclosing dam Kojima Bay	D2 1 008/D2.1.8 Discharge sluices in enclosing dam Kojima Bay	D2 1 009/D2.1.9 Discharge sluices in enclosing dam Kojima Bay
			
D2 1 010/D2.1.10 Discharge sluices Hachirogata reservoir	D2 1 011/D2.1.11 Discharge sluices Hachirogata reservoir	D2 1 012/D2.1.12 Discharge sluices in enclosing dam Kojima Bay	D2 1 013/D2.1.13 Discharge sluices in enclosing dam Kojima Bay

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
<p>D2 1 014/D2.1.14 Discharge sluices in enclosing dam Kojima Bay</p>	<p>D2 1 015/D2.1.15 Discharge sluices Hachirogata reservoir</p>	<p>D2 1 016/D2.1.16 Discharge sluices Hachirogata reservoir</p>	<p>D2 1 017/D2.1.17 Discharge sluices Hachirogata reservoir</p>
			
<p>D2 1 018/D2.1.18 Discharge sluices Hachirogata reservoir</p>	<p>D2 1 019/D2.1.19 Discharge sluices Hachirogata reservoir</p>	<p>D2 1 020/D2.1.20 Discharge sluices in enclosing dam Kojima Bay</p>	<p>D2 1 021/D2.1.21 Discharge sluices Hachirogata reservoir</p>
			
<p>D2 1 022/D.2.1.22 Map Nabeta Polder</p>	<p>D2 1 023/D.2.1.23 Map Nabeta Polder</p>	<p>D2 1 024/D.2.1.24 Map Nabeta Polder</p>	<p>D2 1 025/D.2.1.25 Map Nabeta Polder</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
<p>D2 1 026/D.2.1.26 Map Nabeta Polder</p>	<p>D2 2 049/D.2.2.49 Concrete wall along water</p>	<p>D2 2 050/D.2.2.50 Wall at the dike</p>	<p>D2 2 051/D.2.2.51 Landscape, no lowland</p>
			
<p>D2 2 052/D.2.2.52 Probably discharge sluice</p>	<p>D2 2 053/D.2.2.53 Lowland or polder</p>	<p>D2 2 054/D.2.2.54 Lowland or polder</p>	<p>D2 2 055/D.2.2.55 River, or sea arm in mountainous area</p>
			
<p>D2 2 056/D.2.2.56 Dike with discharge point</p>	<p>D2 2 057/D.2.2.57 Dike with discharge point</p>	<p>D2 2 058/D.2.2.58 View from a mountain at polder area</p>	<p>D2 2 059/D.2.2.59 Dike and probably discharge sluice</p>



Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)

			
D2 2 060/D.2.2.60 View at discharge sluices, presumably Hachirogata Polder	D2 2 061/D.2.2.61 Commemoration stones	D2 2 062/D.2.2.62 View at polder area	D2 2 063/D.2.2.63 Polder area
			
D2 2 064/D.2.2.64 Basin, presumably along polder area	D2 2 065/D.2.2.65 Dike with a road on top	D2 2 066/D.2.2.66 Dike with a road on top	D2 2 067/D.2.2.67 Dike
			
D2 2 068/D.2.2.68 Dike with a road on top	D2 2 069/D.2.2.69 Building constructed at an elevated level	D2 2 070/D.2.2.70 Polder landscape	D2 2 071/D.2.2.71 Road construction in a polder

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
D2 2 072/D.2.2.72 View at a city with dikes along the river	D2 2 073/D.2.2.73 View at a city with dikes along the river	D2 2 074/D.2.2.74 View at lowland area	D2 2 075/D.2.2.75 Polder landscape
			
D2 2 076/D.2.2.76 View from a mountain at polder area	D2 2 077/D.2.2.77 Harbour area	D2 2 078/D.2.2.78 Building along the water	D2 2 079/D.2.2.79 Quay wall
			
D2 2 080/D.2.2.80 Polderside of the dike of the Nabeta Polder	D2 3 023/D.2.3.23 Stone dike	D2 3 024/D.2.3.24 Bank protection along a river	D2 3 025/D.2.3.25 Discharge sluices

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
<p>D2 3 026/D.2.3.26 Stone dike</p>	<p>D2 3 027/D.2.3.27 Excavation of an open field drain</p>	<p>D2 3 028/D.2.3.28 Kojimawan reclamations</p>	<p>D2 3 029/D.2.3.29 Observation point in river</p>
			
<p>D2 3 030/D.2.3.30 Building pit</p>	<p>D2 3 031/D.2.3.31 Discharge sluice and pumping station</p>	<p>D2 3 032/D.2.3.32 View at a polder</p>	<p>D2 3 033/D.2.3.33 River through a village</p>
			
<p>D2 4 041/D.2.4.41 Discharge sluice. Possibly Hachirogata Reservoir</p>	<p>D2 4 042/D.2.4.42 Discharge sluice. Possibly Hachirogata Reservoir</p>	<p>D2 4 043/D.2.4.43 Discharge sluice. Possibly Hachirogata Reservoir</p>	<p>D2 4 044/D.2.4.44 Discharge sluice. Possibly Hachirogata Reservoir</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
D2 4 045/D.2.4.45 Discharge sluice. Possibly Hachirogata Reservoir	D2 4 046/D.2.4.46 Discharge sluice. Possibly Hachirogata Reservoir	D2 4 047/D.2.4.47 Discharge sluice. Possibly Hachirogata Reservoir	D2 4 048/D.2.4.48 Landscape. Possibly Hachirogata Polder
			
D2 4 049/D.2.4.49 Dike. Possibly Hachirogata Polder	D2 4 050/D.2.4.50 Dike and landscape. Possibly Hachirogata Polder	D2 4 051/D.2.4.51 Dike	D2 4 052/D.2.4.52 Dike
			
D2 4 053/D.2.4.53 Dike	D2 4 054/D.2.4.54 Village. Possibly in Hachirogata Polder	D2 4 055/D.2.4.55 Polder landscape. Possibly Hachirogata Polder	D2 4 056/D.2.4.56 Discharge sluice. Possibly Hachirogata Reservoir

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
D2 4 057/D.2.4.57 Dike and polder landscape. Possibly Hachirogata Polder	D2 4 058/D.2.4.58 Dike and polder landscape. Possibly Hachirogata Polder	D.2.4.59 Dike	D2 4 060/D.2.4.60 Boats at a dry flat
			
D2 4 061/D.2.4.61 Bridge through a lake	D2 4 062/D.2.4.62 Dike. Possibly Hachirogata Polder	D2 4 063/D.2.4.63 Construction of discharge sluices. Possibly Hachirogata Reservoir	D2 4 064/D.2.4.64 Boats at a dry flat
			
D2 4 065/D.2.4.65 Landscape. Possibly lowland area	D2 4 066/D.2.4.66 Dike, dry foreland and polder landscape. Possibly Hachirogata Polder	D2 4 067/D.2.4.67 Village. Possibly in Hachirogata Polder	D6 6 001/D.6.6.1 Cross-section of the dike Minami-Ariake

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)

<p>D6 6 002/D.6.6.2 Cross-section of the dike Isahaya</p>	<p>D6 6 003/D.6.6.3 Sketch of dike collapse due to wave overtopping</p>	<p>D6 6 004/D.6.6.4 Yatshushiro reclamations</p>	<p>D6 6 005/D.6.6.5 Coastal area</p>
<p>D6 6 006/D.6.6.6 Dike construction</p>	<p>D6 6 007/D.6.6.7 Dike construction</p>	<p>D6 6 008/D.6.6.8 Dike construction</p>	<p>D6 6 009/D.6.6.9 Presumably dike of a coastal polder</p>
<p>D6 6 010/D.6.6.10 Bridge at the coast under construction</p>	<p>D6 6 011/D.6.6.11 Water course in lowland area</p>	<p>D6 6 012/D.6.6.12 Presumably Japanese tempel</p>	<p>D6 6 013/D.6.6.13 Protected hillslope</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)













			
<p>D6 6 014/D.6.6.14 Road along the coast</p>	<p>D6 6 015/D.6.6.15 Bank protection and road along the coast</p>	<p>D6 6 016/D.6.6.16 Bank protection</p>	<p>D6 6 017/D.6.6.17 Dike with bank protection</p>
			
<p>EV 006/EV-VI-6 Wooden temporary bridge in Kojima Bay</p>	<p>EV 007/EV-VI-7 Dumping of stones in Kojima Bay</p>	<p>EV 008/EV-VI-8 Placing of stones in Kojima Bay</p>	<p>EV 009/EV-VI-9 Open field drains plough in reclamation in Kojima Bay</p>
			
<p>EV 010/EV-VI-10 Kojima Bay Reclamation and Construction Office, Ministry of Agriculture and Forestry</p>	<p>EV 011/EV-VI-11 Overview Kojima Bay with reclamations</p>	<p>EV 011a/EV-VI-11a Overview Kojima Bay with reclamations</p>	<p>EV 012/EV-VI-12 Lowland landscape in Japan</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)









			
EV 013/EV-VI-13 Lowland landscape in Japan	EV 014/EV-VI-14 Partly fallen dry land with stone wall	EV 015/EV-VI-15 Partly fallen dry land with stone wall	EV 016/EV-VI-16 Partly fallen dry land with stone wall
			
EV 017/EV-VI-17 Partly fallen dry land with stone wall	EV 018/EV-VI-18 Stone collection for dike construction	EV 019/EV-VI-19 Hi Toichi in the snow	EV 020/EV-VI-20 School children in the snow
			
EV 021/EV-VI-21 Wooden bank with warehouses	EV 022/EV-VI-22 City in lowland area	EV 023/EV-VI-23 Overview of the bay	EV 024/EV-VI-24 Building at mountain slope



Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)


			
<p>EV 025/EV-VI-25 Bay surrounded by mountains</p>	<p>EV 026/EV-VI-26 City view in lowland area</p>	<p>EV 027/EV-VI-27 City view in the snow in lowland area</p>	<p>EV 028/EV-VI-28 City with river at the toe of a mountain slope</p>
			
<p>EV 029/EV-VI-29 River or canal through a city</p>	<p>EV 030/EV-VI-30 House at a mountain slope</p>	<p>EV 031/EV-VI-31 Prof. Adriaan Volker and Japanese counterpart look at the map in Yoroi Gata</p>	<p>EV 032/EV-VI-32 Dr. Pieter Philippus Jansen and Prof. Adriaan Volker in a meeting</p>
			
<p>EV 033/EV-VI-33 Prof. Adriaan Volker in discussion with a Japanese counterpart</p>	<p>EV 034/EV-VI-34 Prof. Adriaan Volker and Dr. P.P. Jansen in discussion</p>	<p>EV 035/EV-VI-35 Prof. Adriaan Volker and Dr. P.P. Jansen take a look at the documents</p>	<p>EV 036/EV-VI-36 Group picture with Prof. Adriaan Volker and Dr. P.P. Jansen</p>

Table 1. Pictures and slides by Prof. Adriaan Volker on polders in Japan (continued)










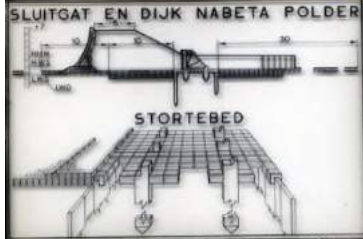



















			
<p>EV 037/EV-VI-37 Prof. Adriaan Volker and Dr. P.P. Jansen take a look at a grave stone</p>	<p>EV 038/EV-VI-38 Prof. Adriaan Volker and Dr. P.P. Jansen take a look at a grave stone</p>	<p>EV 039/EV-VI-39 Prof. Adriaan Volker and Dr. P.P. Jansen take a look at a vase/urn??</p>	<p>EV 040/EV-VI-40 Prof. Adriaan Volker and Dr. P.P. Jansen at the grave stone</p>
			
<p>EV 041/EV-VI-41 Prof. Adriaan Volker, Dr. P.P. Jansen pose with a Japanese counterpart</p>	<p>EV 042/EV-VI-42 Prof. Adriaan Volker and Dr. P.P. Jansen in the field in discussion with Japanese counterparts</p>	<p>EV 043/EV-VI-43 Prof. Adriaan Volker and Dr. P.P. Jansen at a ceremony</p>	<p>EV 044/EV-VI-44 Prof. Adriaan Volker and a Japanese counterpart</p>
			
<p>EV 045/EV-VI-45 Group picture with Prof. Adriaan Volker and Dr. P.P. Jansen in the middle in front of a statue</p>	<p>BD1 001/D2.BD.D1 Closure gap. Bottom protection and dike Nabeta Polder</p>	<p>BD1 002/D2.BD.D2 Closure gap dike Shiranuhi Polder</p>	

Table 2. Pictures and slides by Prof. Bart Schultz on the polders in Japan

			
<p>Row 1 001/XXII/1-1 View at the Hachirogata Polder, March 2003</p>	<p>Row 1 002/XXII/1-2 View at the Hachirogata Polder, March 2003</p>	<p>Row 2 001/XXII/2-1 View at the Hachirogata Polder, March 2003</p>	<p>Row 2 002/XXII/2-2 Renovation activities for the discharge sluice of the Hachirogata Polder, March 2003</p>
			
<p>Row 2 003/XXII/2-3 Group picture in front of the discharge sluice of the Hachirogata Polder. Second of left Dr. Tanyama, aside of him Prof. Bart Schultz, March 2003</p>	<p>Row 2 004/XXII/2-4 Control building and office of the Authority of the Hachirogata Polder, March 2003</p>	<p>Row 3 001/XXII/3-1 Control building and office of the Authority of the Hachirogata Polder, March 2003</p>	<p>Row 3 002/XXII/3-2 Control building and office of the Authority of the Hachirogata Polder, March 2003</p>
			
<p>Row 3 003/XXII/3-3 Control building and office of the Authority of the Hachirogata Polder, March 2003</p>	<p>Row 3 004/XXII/3-4 Name plate of the Polder Museum of the Hachirogata Polder in Ogata Mura, March 2003</p>	<p>Row 4 001/XXII/4-1 Group picture in the Polder Museum of the Hachirogata Polder. Left dr. Tanyama, aside Prof. Bart Schultz, March 2003</p>	<p>Row 4 002/XXII/4-2 Pictures of the developers and advisors of the Hachirogata Polder. Picture right Dr. P.P. Jansen, former Chief Engineer Director of the Delta Service, March 2003</p>

\*) Batavialand/original

Table 1. Pictures and slides by Prof. Bart Schultz on polders in Japan (continued)

			
<p>Row 4 003/XXII/4-3 Picture of Dr. P.P. Jansen, former Chief Engineer Director of the Delta Service in the Polder Museum of the Hachirogata Polder, March 2003</p>	<p>Row 6 001/XXII/6-1 Pumping station of the Hachirogata Polder</p>	<p>Row 6 002/XXII/6-2 Pumping station of the Hachirogata Polder</p>	<p>D8 25 006/XXV-6 Discharge sluices of the Hachirogata Reservoir</p>
			
<p>D8 25 007/XXV-7 Discharge sluices of Kojima Bay</p>	<p>D8 25 008/XXV-8 Discharge sluices of the Hachirogata Reservoir</p>		