

## CHINA



Source: esri

### General

China - officially the People's Republic of China - is a unitary sovereign state in East Asia and the world's most populous country. China has the most neighbour countries in the world. China has 22 provinces, five autonomous regions, four direct-controlled municipalities (Beijing, Tianjin, Shanghai, and Chongqing) and the special administrative regions of Hong Kong and Macau. With an area of 960 Mha (million hectares) China is the fourth-largest country by total area. In 2022 the population was 1426 million, or 1.5 persons per ha (Wikipedia and United Nations, 2022).

### Climate and geography

China's climate is mainly dominated by dry and wet monsoons, which lead to pronounced temperature differences between winter and summer. In the winter, northern winds coming from high-latitude areas are cold and dry; in summer, southern winds from coastal areas at lower latitudes are warm and moist. The climate in China differs from region to region because of the country's highly complex topography (source: Wikipedia).

China's landscape is vast and diverse, ranging from the Gobi and Taklamakan Deserts in the arid North to the subtropical forests in the wetter South. The Himalaya, Karakoram, Pamir and Tian Shan mountain ranges separate China from much of South and Central Asia. In the East, along the shores of the Yellow Sea and the East China Sea, there are extensive and densely populated plains, while on the edges of the Inner Mongolian plateau in the North, broad grasslands predominate. High plateaus feature among the more arid landscapes of the North. Southern China is dominated by hills and low mountain ranges. China connects through the Kazakh border to the Eurasian Steppe, which has been an artery of communication between East and West. The country's lowest point, and the world's third-lowest, is the dried lake bed of Ayding Lake - 154 m-MSL (mean sea level) - in the Turpan Depression (source: Wikipedia).

The Yangtze and Yellow Rivers run from the Tibetan Plateau to the densely populated eastern seaboard. The central-east hosts the deltas of these major rivers. Other major rivers include the Xi, Mekong, Brahmaputra and Amur. China's coastline along the Pacific Ocean is 14,500 km long and is bounded by the Bohai, Yellow, East China and South China seas (source: Wikipedia).

Jianming Ma *et al.* (2010) state that the flood prone areas in China concern about 106 Mha, accounting for 11.2% of the country. These areas include one-third of China's farmland, 66% of its population, 80% of the gross domestic product (GDP), and accommodate 61% of the cities (source: Wikipedia).

The Group Polder Development (1982) mentions that more than 1 million hectares of foreland emerged by the alluvial deposits of the Yellow River and the Hwai River. Those deposits were continuously reclaimed by the farmers. It is estimated that by the end of the 19<sup>th</sup> century 370,000 ha of land were well cultivable. At present the total reclaimed area is estimated to be some million hectares, consisting of real polders and other reclamations.

### Existing polders

Zhanyu *et al.* (2005) state that the total area of polders in China is about 41 Mha. They also state that the length of polder dikes is 270,000 km and that the protected population is about 480 million. In their paper they show a schematic presentation of what they call the polder water cycle system (Figure 1).

Sangyuanwei Polder Embankment System is one of the largest polder embankment projects of ancient China. It is located in Foshan City, Guangdong Province, in the Pearl River Delta. The polder has an area of 26,540 ha. The Sangyuanwei Polder Embankment System was first built in the early 12<sup>th</sup> century and enclosed at the end of the 14<sup>th</sup> century.

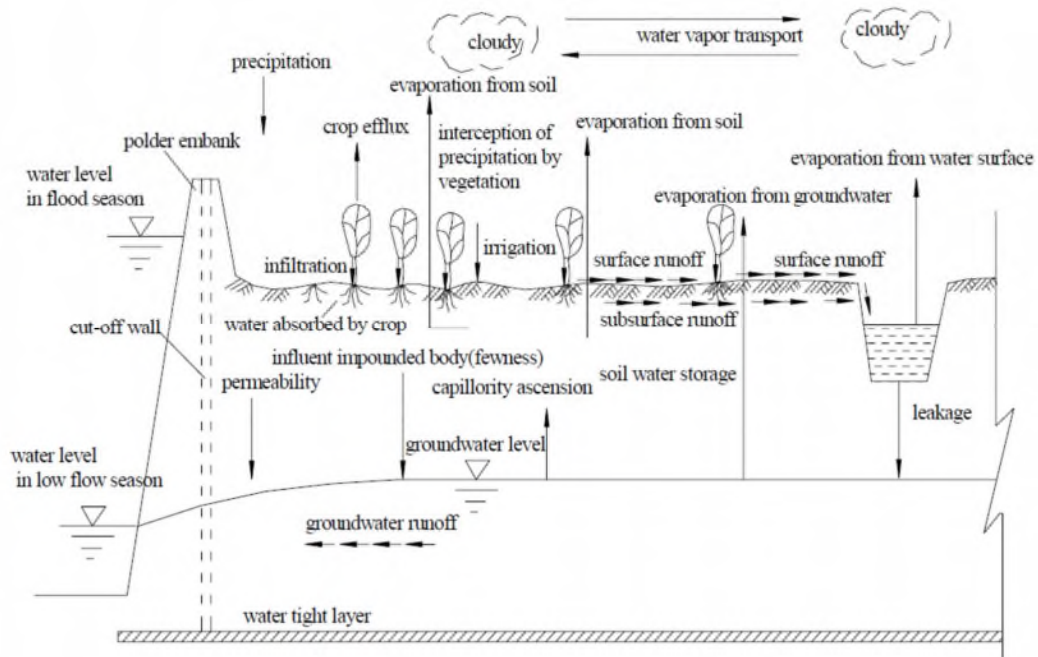


Figure 1. Polder water cycle system (Zhanyu et al., 2005)

*Hetao Irrigation District* (Figure 2) (680,000 ha). This is one of the three largest irrigation areas in China, located in Inner Mongolia along the North bank of Yellow River. The area is provided with an irrigation and a drainage system, as well as with flood protection against flooding by the Yellow River. The system originates from the 3<sup>rd</sup> century BC and has been gradually improved and expanded (Administration of Hetao Irrigation District of Inner Mongolia, 2019). The drainage system consists of one main drain, 12 major drains, 59 distributary drains.

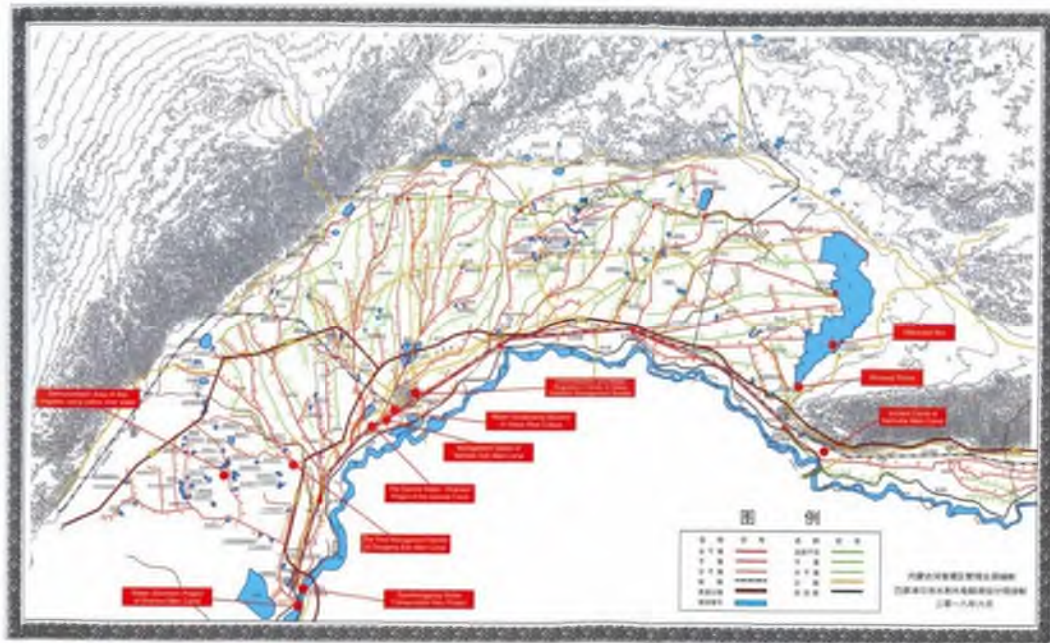


Figure 2. Lay out of the Hetao Irrigation District

The water of nine major drains is discharged to Ulansuhai Lake by the Honggebo drainage pumping station with a capacity of 120 m<sup>3</sup>/s. The other three major drains are in open connection with the lake. At the southern end of the lake is Wumaoji discharge sluice with a design capacity of 100 m<sup>3</sup>/s. At the outlet of the drain to the Yellow River there are discharge sluices and a drainage pumping station with a capacity of 60 m<sup>3</sup>/s (Figure 3).



Figure 3. Discharge sluice and drainage pumping station of Hetao Irrigation District and Ulansuhai Lake to Yellow River

The Group Polder Development (1982) identified the following polders:

- *Chang Chien Polder (7,314 ha)*. Located in the southern end of Kiangsu Province (north of the Yangtze River). After the dike was closed, engineer Chang Chien deviated from the common land reclamation practices by planting grass and grazing the land for two or three years to improve the soil properties. In the meantime, the land was desalinated by pumping and drainage of water with windmills (Figure 4).

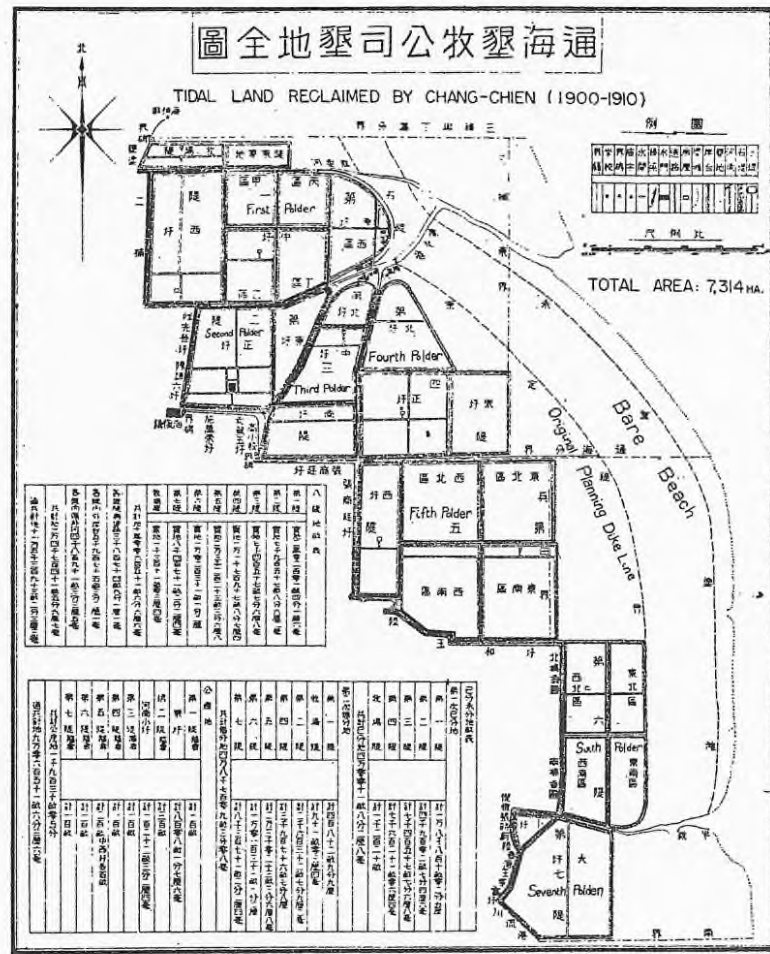


Figure 4. Chang Chien Polder

- *Polders in the Taihu Lake Region south of the Yangtze River.* Three polder areas were identified, occupying depressions and lakes: Yang Chengu Polder, Piang-Jia-Hu Polder and Taogaihu Polder (Figure 5).

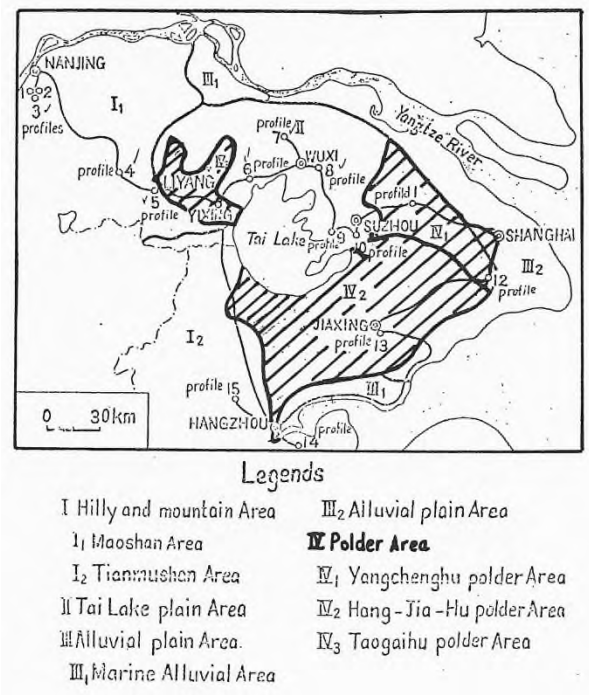


Figure 5. Polder areas in the Taihu Lake Region

In addition Huang *et al.* (2016 and 2017) describe a model for the simulation of the discharge of phosphorus from a polder. The model has initially (2016) been applied to Polder Jian in the Taihu Lake Basin and later (2017) to all the 2539 polders with a total area of 1,062,700 ha in the Basin (Figure 6).

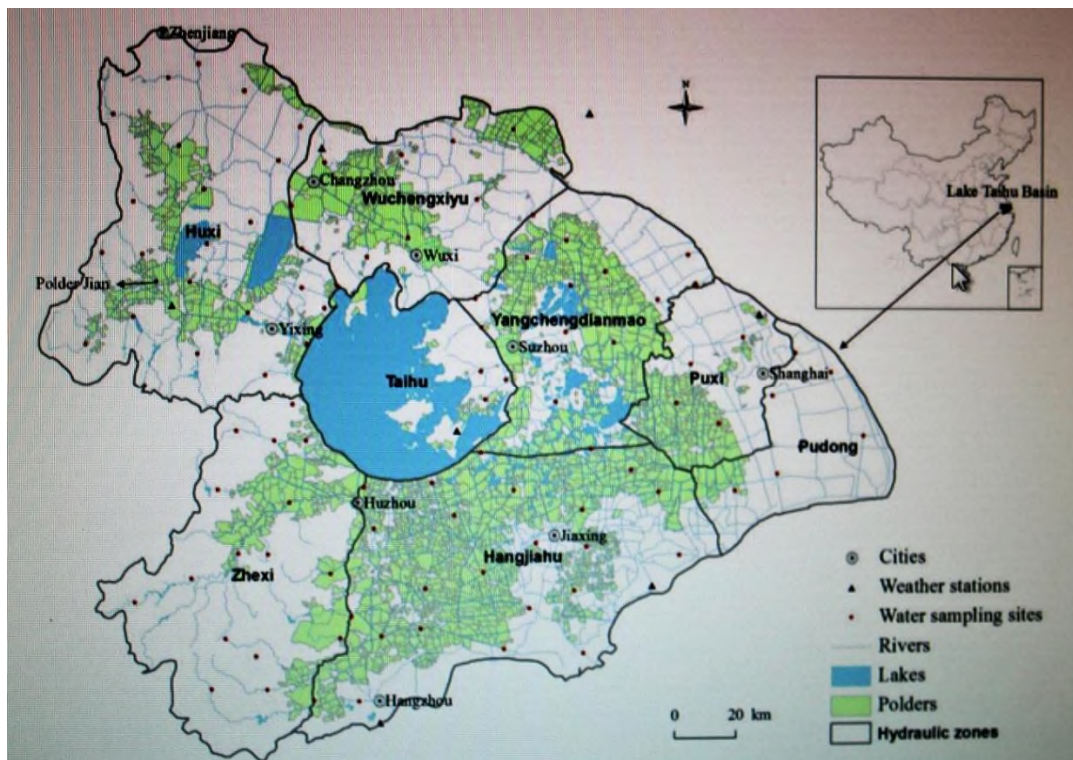


Figure 6. Locations of 2539 polders with a total area of 1,062,700 ha in Taihu Lake Basin (Huang *et al.*, 2017)

- *Da Feng Polder*. In a report of the Netherlands Ministry of Agriculture and Fisheries *et al.* (1987) a dairy development model is being described. The report also contains information on the water management and flood protection provisions (Figure 7).

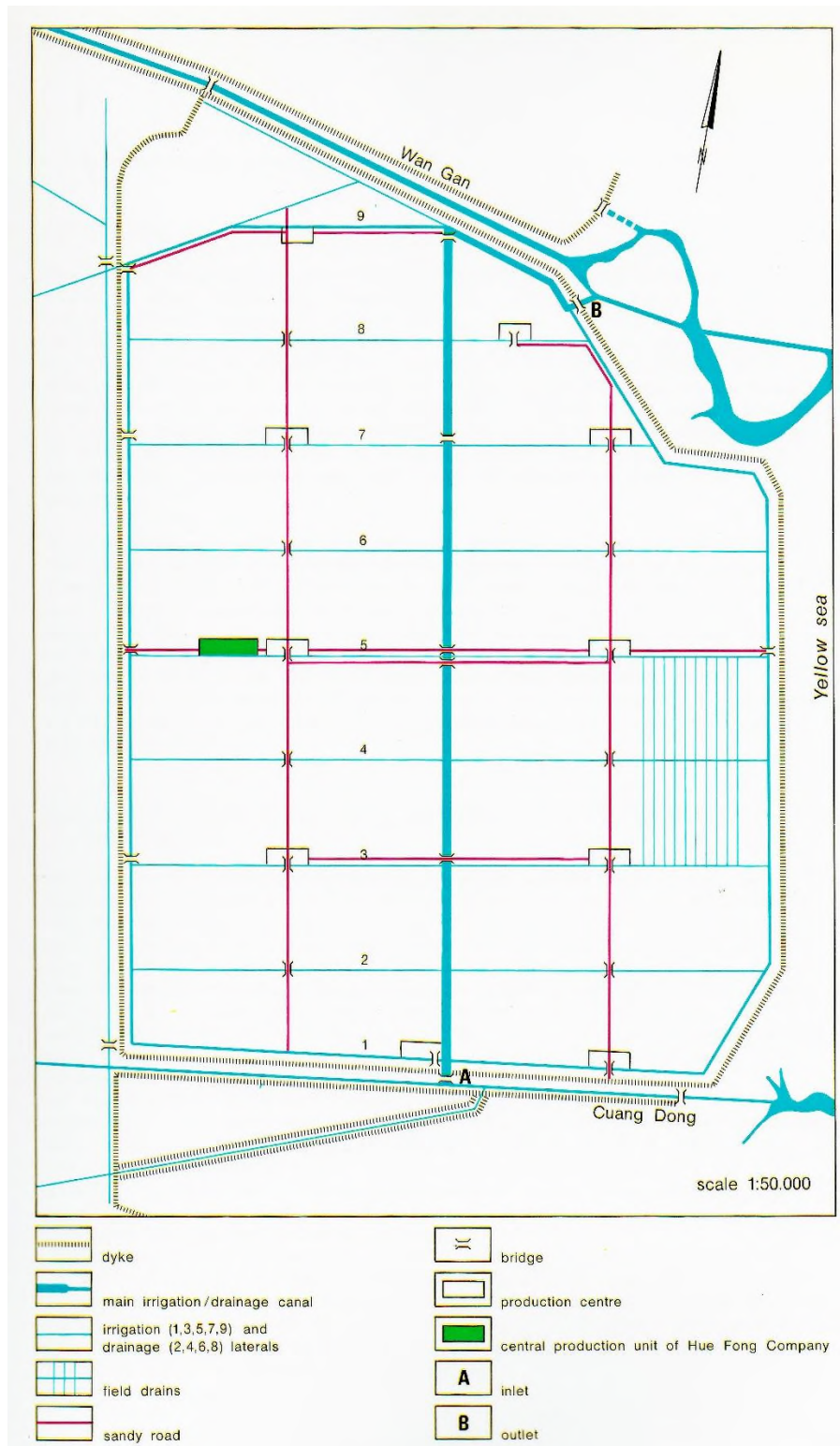


Figure 7. Lay out of the Da Feng Polder (Ministry of Agriculture and Fisheries *et al.*, 1987)

- *Polders in the middle part of Yangtze River*. There are many polders in the middle part of Yangtze River (Figure 8).



Figure 8. Symbolic wolf that has to protect the polder area upstream of Wuhan from flooding by the Yangtze River

- Polders in the Canton area;
- Polders in the Yellow River Delta. The Yellow River has regularly changed its course in the Yellow River Delta (Figure 9).



Figure 9. Changing courses of the main branch of Yellow River through its Delta

General characteristics of the polders in China 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.

## Drainage and flood protection

For many years the design standard for flood protection in China has been a chance of occurrence of 1 in 20 years. About ten years ago new standards were set. For rural areas the standard remained 1 in 20 years. However for cities the standard was increased to 1 in 50 to 1 in 100 years, and for major cities to 1 in 200 years.

Chan *et al.* (2013) describe that flood protection along the Shenzhen River, is set at the chance of occurrence of 1 in 50 years. For urban drainage systems, the protection standard can be up to 1 in 200 years.

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

The location of the polders in China is shown in Figure 10.



Figure 10. Location of the polders in China (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

- Administration of Hetao Irrigation District of Inner Mongolia, 2019. *Field visit of Hetao Irrigation District. Handbook.*
- 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.
- Boot, R., 2005. *François Bourdrez. A struggle against mighty rivers.* Royal Netherlands Embassy in Beijing, China.
- Chan, F.K.S., O. Adekola, G. Mitchell, Cho Nam Ng, and A. McDonald. Towards sustainable flood risk management in the Chinese coastal megacities. A case study of practice in the Pearl River Delta. *Irrigation and Drainage*. Vol. 62, 501-509.
- Editorial Board of China Water Development Report, 2014. *China Water Development Report.* China Water & Power Press. Beijing, China.

- Feng, G., Z. Zhang, P. Lu and A. Bakour, 2018. Simulation of farmland groundwater table depth and soil salinity under drainage systems in tidal areas, Laizhou Bay of China. *Irrigation and Drainage*. 67.S1. 105-118.
- Group Polder Development, Department of Civil Engineering, Delft University of Technology, 1982. *Polders of the World. Compendium of polder projects*. Delft, the Netherlands
- Huang, J., J. Gao and R. Yan, 2016. A Phosphorus Dynamic model for lowland polder systems (PDP). *Ecological engineering : the journal of ecotechnology*. Vol. 88, 242-255.
- Huang, Jiacong, Junfeng Gao, Yong Jiang, Hongbin Yin and Bahman Jabbarian Amiri, 2017. Sources, distribution and export coefficient of phosphorus in lowland polders of Lake Taihu Basin, China. *Environmental pollution*. Volume 231:Part 2; pp 1274-1283
- Li, Yikai, Yu Ye, Xiuqi Fang, Chengpeng Zhang and Zhilong Zhao, 2020. Loss of wetlands due to the expansion of polder in the Dongting Plain, China, AD 1368–1980. *The Holocene*.
- Ma, Jianming, Xuming Tan and Nianqiang Zhang, 2010. Flood management and flood warning system in China. *Irrigation and Drainage*. 59.1. 17–22.
- Ministry of Agriculture and Fisheries, Ministry of Public Works and Euroconsult, 1987. *A dairy development model for the Da Feng polder, Jiangsu Province, D.P.R. China*. the Netherlands.
- Ministry of Water Resources, 1999. *Code for design of irrigation and drainage engineering (GB50288-99)*. China Planning Press. Beijing, China.
- Ministry of Water Resources, 2018. *Design standard for irrigation and drainage engineering (GB50288-2018)*. China Planning Press. Beijing,
- Ning, Liu, 2006. From philosophy to action: accomplishing harmonious coexistence between man and flood. *Irrigation and Drainage*. 55.3. 247-252.
- Ruiguang, Han, 2001. *Flood control and land use management in the Mengwa retention area, Huai river basin*. MSc Thesis, IHE. Delft, the Netherlands.
- Steurmer, J., 1980. *Polder construction and the pattern of land ownership in the T'ai-Hu Basin during the Southern Sung Dynasty*. PhD Thesis. Graduate School of Arts and Sciences, University of Pennsylvania, Philadelphia, USA.
- United Nations, Department of Economic and Social Affairs, Population Division. 2022. *World population prospects, medium prognosis. The 2022 revision*. New York, USA.
- Wang Shaoli, Wang Xiugui, Larry C. Brown and Qu Xingye, 2007. Current status and prospects of agricultural drainage in China. *Irrigation and Drainage*. 56.S1. 47-58.
- Wang, Zhao-Yin, 2000. *History of flood defense in China – with particular reference to the Yellow River*. In: Kassel Reports of Hydraulic Engineering. No. 9/2000. Hercules Verlag. Kassel, Germany.
- Wang, Zhao-Yin, Joseph H.W. Lee and Charles S. Melching, 2018. *Flood river dynamics and integrated river management. Defense and water/sediment management—with particular reference to the Yellow river*. Springer. Switzerland.
- Xiaotao, C., 2006. Recent progress in flood management in China. *Irrigation and Drainage*. 55.S1. 75–82.
- Yan, Renhua, Jiacong Huang, Lingling Li and Junfeng Gao, 2017. Hydrology and phosphorus transport simulation in a lowland polder by a modeling system. *Environmental pollution*. Volume 227. 613-625.
- Yan, Rehua, Junfeng Gao and Jiacong Huang, 2019. Modelling the hydrological processes of a Chinese lowland polder and identifying the key factors using an improved PHPS model. *Journal of Hydrology*, vol. 578, 124083.
- Zhanyu, Z., Z. Chengli and Z. Hongli, 2005. *Study on water environment simulation model and its application in large-scale polders*. In: Transactions 19<sup>th</sup> Congress on Irrigation and Drainage. Beijing, China.

Bart Schultz

Lelystad, July 2023



Table I. General characteristics of existing polders in China

Name	Reclamation	Area in ha	Type *)	Latitudes	Longitudes	Elevation in m+MSL	Land use
Hetao Irrigation District	3 <sup>rd</sup> century BC	680,000	RLL	41° 01' N	108° 43' E	1022	Agriculture
Sangyuanwei Polder Embankment System	Beginning of 12 <sup>th</sup> century	26,540	RLL	23° 01' N	113° 07' E	1	Urban
Chang Chien Polder	1900-1910	7,314	LGS	33° 13' N	119° 57' E	0	Agriculture
Da Feng Polder	1983	5,000	LGS	33° 12' N	120° 44' E	3	Agriculture
Badoshan Polder	1996	2,800	RLL				
2539 polders in the Taihu Lake Region south of the Yangtze River: <ul style="list-style-type: none"> <li>• Jian Polder</li> <li>• Jianwei Polder</li> <li>• Piang Jia Hu Polder</li> <li>• Taogaihu Polder</li> <li>• Yang Chengu Polder</li> </ul>		1,062,700	RLL RLL RLL RLL RLL	30° 53' N	120° 14' E	2	Agriculture Agriculture
Jiangxi Gandong polder		20,138	RLL				
Jiangxiang Polder			RLL	30° 08' N	114° 52' E	35	Agriculture
Polders in the Canton area			RLL	23° 11' N	112° 44' E	10	Agriculture
Polders in middle part Yangtze River			RLL	30° 26' N	114° 44' E	20	Agriculture
Polders in the Yellow River Delta			RLL	37° 48' N	119° 02' E	2	Agriculture
Total		41,000,000					

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

Table II. Characteristics of the water management and flood protection systems in China

Name	Design criteria in chance of occurrence/year						
	Water management					Flood protection Chance per year	
	Drainage				Irrigation	Rural	Urban
	Type	Design criterion	Percentage of open water	Discharge capacity			
m <sup>3</sup> /s				mm/day			
General						1/20	Cities 1/50 -1/100 Mega cities 1/200
Hetao Irrigation District	RLL						
Sangyuanwei Polder Embankment System	RLL						
Chang Chien Polder	LGS	1/5 years			100		Dike 5 – 5,5 m
Da Feng Polder	LGS						
Badoshan Polder	RLL						
2539 polders in the Taihu Lake Region south of the Yangtze River:							
• Jian Polder	RLL						
• Jianwei Polder	RLL						
• Piang Jia Hu Polder	RLL						
• Taogaihu Polder	RLL						
• Yang Chengu Polder	RLL						
Jiangxi Gandong polder	RLL					1/50	
Jiangxiang Polder	RLL						
Polders in the Canton area	RLL						
Polders in middle part Yangtze River	RLL						
Polders in the Yellow River Delta	RLL						

Table III. Pictures and slides by Prof. Adriaan Volker on the polders in China

			
A4 001/ XI.4.1*) Presumably rice polder	A4 002/ XI.4.2 Presumably rice polder	A4 003/ XI.4.3 Presumably rice polder	A4 004/ XI.4.4 Presumably rice polder
			
A4 005/ XI.4.5 Presumably rice polder	A4 006/ XI.4.6 Presumably rice polder	A4 007/ XI.4.7 Presumably rice polder	A4 008/ XI.4.8 Presumably rice polder
			
A4 009/ XI.4.9 Presumably rice polder	A4 010/ XI.4.10 Presumably rice polder	A4 011/ XI.4.11 Canal and boats in Chinese lowland	A6.000/XI.6.0 Land reclamation along the coast

\*) Batavia/land/original

Table III. Pictures and slides by Prof. Adriaan Volker on polders in China (continued)













			
A6.001/XI.6.1 Presumably breakwater for land reclamation along the coast	A6.002/XI.6.2 Presumably breakwater for land reclamation along the coast	A6.003/XI.6.3 Presumably breakwater for land reclamation along the coast	A6.004/XI.6.4 Land reclamation along the coast
			
A6.005/XI.6.5 Presumably discharge sluice for land reclamation along the coast de coast	A6.006/XI.6.6 Hydrologic observation station and canal in land reclamation along the coast	A6.007/XI.6.7 Land reclamation along the coast	A6.008/XI.6.8 Land reclamation along the coast
			
A6.009/XI.6.9 Group picture with Volker fourth from the left	A6.010/XI.6.10 Lowland area	A6.011/XI.6.11 Lowland area	A6.012/XI.6.12 Coastal dike with probably discharge sluice for lowland area

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













			
A6.013/XI.6.13 Weir in lowland area	A6.014/XI.6.14 Lowland area	A6.015/XI.6.15 Probably dike along the Yellow River	A6.016/XI.6.16 Probably dike along the Yellow River
			
A6.017/XI.6.17 Probably dike along the Yellow River	A6.018/XI.6.18 Probably dike along the Yellow River	A6.019/XI.6.19 Probably dike along the Yellow River	A6.020/XI.6.20 Probably dike along the Yellow River
			
A6.021/XI.6.21 Probably endiking	A6.022/XI.6.22 Probably endiking	A6.023/XI.6.23 Probably endiking	A6.024/XI.6.24 Probably endiking

Table III. Pictures and slides by Prof. Adriaan Volker on polders in China (continued)




			
<p>A6.025/XI.6.25 Probably endiking</p>	<p>A6.026/XI.6.26 Probably endiking</p>	<p>A6.027/XI.6.27 Sedimentation screens along the coast</p>	<p>A6.028/XI.6.28 Concrete lined irrigation canal, research farm, northern region</p>
			
<p>A6.029/XI.6.29 Probably endiking</p>	<p>A6.030/XI.6.30 Probably endiking</p>	<p>A6.031/XI.6.31 Possibly the same area. Otherwise another endiking</p>	<p>A6.032/XI.6.32 Possibly the same area. Otherwise another endiking</p>
			
<p>A6.033/XI.6.33 Possibly the same area. Otherwise another endiking</p>	<p>A6.034/XI.6.34 Possibly the same area. Otherwise another endiking</p>	<p>A6.035/XI.6.35 Simple windmill for raising water in possibly the same area. Otherwise for another endiking</p>	<p>A6.036/XI.6.36 Possibly the same area. Otherwise another endiking</p>

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












			
<p>A6.037/XI.6.37 Possibly the same area. Otherwise another endiking</p>	<p>A6.038/XI.6.38 Possibly the same area. Otherwise another endiking</p>	<p>A6.039/XI.6.39 Possibly the same area. Otherwise another endiking</p>	<p>D1 5 001/D.1.5.1 Physical model research</p>
			
<p>D1 5 002/D.1.5.2 Physical model research</p>	<p>D1 5 003/D.1.5.3 Physical model research</p>	<p>D1 5 004/D.1.5.4 Bridges over the river</p>	<p>D1 5 005/D.1.5.5 Bridges over the river</p>
			
<p>D1 5 006/D.1.5.6 Bridges over the river</p>	<p>D1 5 007/D.1.5.7 Bridges over the river</p>	<p>D1 5 008/D.1.5.8 Bridges over the river</p>	<p>D1 5 009/D.1.5.9 Canal in lowland area</p>

Table III. Pictures and slides by Prof. Adriaan Volker on polders in China (continued)












			
<p>D1 5 010/D.1.5.10 Canal in lowland area</p>	<p>D1 5 011/D.1.5.11 Canal in lowland area</p>	<p>D1 5 012/D.1.5.12 Discharge sluice</p>	<p>D1 5 013/D.1.5.13 Discharge sluice</p>
			
<p>D1 5 014/D.1.5.14 Discharge sluice</p>	<p>D1 5 015/D.1.5.15 Discharge sluice</p>	<p>D1 5 016/D.1.5.16 Discharge sluice</p>	<p>D1 5 017/D.1.5.17 Road at a small dike along a rice field</p>
			
<p>D1 5 018/D.1.5.18 Wall along a canal</p>	<p>D1 5 019/D.1.5.19 Wall along a canal</p>	<p>D1 5 020/D.1.5.20 Trees along a agriculture field</p>	



Table IV. Pictures and slides by Prof. Bart Schultz on the polders in China

			
Rij 1 001/X/1-1 *) Landscape along the Yellow River	Rij 1 002/X/1-2 Landscape along the Yellow River	Rij 1 003/X/1-3 Landscape along the Yellow River	Rij 2 001/X/2-1 Landscape along the Yellow River
			
Rij 2 002/X/2-2 Landscape along the Yellow River	Rij 2 003/X/2-3 Landscape along the Yellow River	Rij 2 004/X/2-4 Inlet structure for irrigation water from the Yellow River	Rij 3 001/X/3-1 Inlet structure for irrigation water from the Yellow River
			
Rij 3 002/X/3-2 Inlet structure for irrigation water from the Yellow River	Rij 3 003/X/3-3 Inner slope of the dike along the Yellow river	Rij 3 004/X/3-4 Main canal of an irrigation system for which the water is being withdrawn from the Yellow River	Rij 4 001/X/4-1 Example area for irrigation

\*) Batavialand/original

Table IV. Pictures and slides by Prof. Bart Schultz on polders in China (continued)

			
<p>Rij 4 002/X/4-2 Example area for irrigation</p>	<p>Rij 4 003/X/4-3 Irrigation canal for the water supply of a rice field in an example area</p>	<p>Rij 4 004/X/4-4 Irrigation canal for the water supply of a rice field in an example area</p>	<p>Rij 5 001/X/5-1 Rice fields in an example area</p>
			
<p>Rij 5 002/X/5-2 Rice fields in an example area</p>	<p>Rij 5 003/X/5-3 Irrigation canal for the water supply of a rice field in an example area</p>	<p>Rij 5 004/X/5-4 Irrigation canal for the water supply of a rice field in an example area</p>	<p>Rij 6 001/X/6-1 Chinese farmer for the rice field in an example area</p>
			
<p>Rij 6 002/X/6-2 Picture of a wolf in the neighbourhood of Wuhan that is symbolic for the prevention of cases of flooding from the Yangtze river</p>	<p>Rij 6 003/X/6-3 Picture of a wolf in the neighbourhood of Wuhan that is symbolic for the prevention of cases of flooding from the Yangtze river</p>	<p>Rij 6 004/X/6-4 Yangtze River near Wuhan</p>	<p>Rij 7 001/X/7-1 Yangtze River near Wuhan</p>

Table IV. Pictures and slides by Prof. Bart Schultz on the polders in China (continued)













			
Rij 7 002/X/7-2 Dike along the Yangtze river near Wuhan	Rij 7 003/X/7-3 Dike along the Yangtze river near Wuhan	Rij 7 004/X/7-4 Dike along the Yangtze river near Wuhan	Rij 1 001/XI/1-1 Dike along the Yangtze river near Wuhan
			
Rij 1 002/XI/1-2 Dike along the Yangtze river near Wuhan	Rij 1 003/XI/1-3 Dike along the Yangtze river near Wuhan	Rij 1 004/XI/1-4 Dike along the Yangtze river near Wuhan	D5.9.25/IX-25 Rice fields in the demonstration area between Nanjing en Shanghai
			
D5.9.26/IX-26 Rice fields in the demonstration area between Nanjing en Shanghai	D5.9.27/IX-27 Rice fields in the demonstration area between Nanjing en Shanghai	D5.9.28/IX-28 Rice fields in the demonstration area between Nanjing en Shanghai	D5.9.29/IX-29 Rice fields in the demonstration area between Nanjing en Shanghai

Table IV. Pictures and slides by Prof. Bart Schultz on polders in China (continued)

			
<p>D5.9.30/IX-30 Irrigation canal/drain in demonstration area between Nanjing and Shanghai</p>	<p>D5.9.31/IX-31 Inlet/outlet structures in demonstration area between Nanjing and Shanghai</p>	<p>D5.9.32/IX-32 Inlet/outlet structures in demonstration area between Nanjing and Shanghai</p>	<p>D5.9.33/IX-33 Inlet/outlet structures in demonstration area between Nanjing and Shanghai</p>
			
<p>D5.9.34/IX-34 Inlet/outlet structures in demonstration area between Nanjing and Shanghai</p>	<p>D5.9.35/IX-35 Field canal in demonstration area between Nanjing and Shanghai</p>	<p>D5.9.36/IX-36 Inlet/outlet structure in a bank in demonstration area between Nanjing and Shanghai</p>	<p>D5.9.37/IX-37 Watersupply/discharge canal along a small road in demonstration area between Nanjing and Shanghai</p>

Table IV. Pictures and slides by Prof. Bart Schultz on the polders in China (continued)













			
<p>D5.9.38/IX-38 Watersupply/discharge canal along a small road in demonstration area between Nanjing and Shanghai</p>	<p>D5.9.39/IX-39 Watersupply/discharge canal in demonstration area between Nanjing and Shanghai</p>	<p>D5.9.40/IX-40 Different types of measuring weirs in watersupply/discharge canal in demonstration area between Nanjing and Shanghai</p>	<p>D5.9.41/IX-41 Different types of measuring weirs in watersupply/discharge canal in demonstration area between Nanjing and Shanghai</p>
			
<p>D5.9.42/IX-42 Watersupply/discharge canal in demonstration area between Nanjing and Shanghai</p>	<p>D5.9.43/IX-43 Ships at the Yangtze River in the area between Nanjing and Shanghai</p>	<p>D5.9.44/IX-44 Canal in the area between Nanjing and Shanghai</p>	<p>D5.9.45/IX-45 Landscape in the area between Nanjing and Shanghai</p>
			
<p>D5.9.46/IX-46 Landscape in the area between Nanjing and Shanghai</p>	<p>D5.9.47/IX-47 Landscape in the area between Nanjing and Shanghai</p>	<p>D5.9.48/IX-48 Canal in the area between Nanjing and Shanghai</p>	<p>D5.9.49/IX-49 Canal in the area between Nanjing and Shanghai</p>

Table IV. Pictures and slides by Prof. Bart Schultz on polders in China (continued)









			
<p>D5.9.50/IX-50 Landscape in the area between Nanjing and Shanghai</p>	<p>D7.14.013/XIV-13 Main drain in the area of Yinchuan, Province of Ningxia. This main drain discharges excess irrigation water back to the Yellow River</p>	<p>D7.14.014/XIV-14 Irrigation canal over the main drain in the area of Yinchuan, Province of Ningxia. The main drain discharges excess irrigation water back to the Yellow River</p>	<p>D7.14.015/XIV-15 Outlet of a field drain in the area of Yinchuan, Province of Ningxia</p>
			
<p>D7.14.016/XIV-16 Road in an irrigated area, Yinchuan, Province of Ningxia</p>	<p>D7.14.017/XIV-17 Road in an irrigated area, Yinchuan, Province of Ningxia</p>	<p>D7.14.018/XIV-18 Maize in an irrigated area, Yinchuan, Province of Ningxia</p>	<p>D7.14.019/XIV-19 Main drain in the area of Yinchuan, Province of Ningxia</p>

Table IV. Pictures and slides by Prof. Bart Schultz on the polders in China (continued)












			
<p>D7.14.020/XIV-20 Main drain in the area of Yinchuan, Province of Ningxia</p>	<p>D7.14.021/XIV-21 Determination of the Chloride content in one of the main drains in the area of Yinchuan, Province of Ningxia</p>	<p>D7.14.022/XIV-22 Main drain in the area of Yinchuan, Province of Ningxia.</p>	<p>D7.14.023/XIV-23 Staff cage in a main drain in the area of Yinchuan, Province of Ningxia.</p>
			
<p>D7.14.024/XIV-24 Main drain in the area of Yinchuan, Province of Ningxia.</p>	<p>D7.14.025/XIV-25 Main drain in the area of Yinchuan, Province of Ningxia.</p>	<p>D7.14.026/XIV-26 Irrigation canal with bank protection in the area of Yinchuan, Province of Ningxia.</p>	<p>D7.14.027/XIV-27 Installation of road pavement in the area of Yinchuan, Province of Ningxia.</p>

Table IV. Pictures and slides by Prof. Bart Schultz on the polders in China (continued)

			
<p>D7.14.028/XIV-28 Weir in one of the irrigation canals in the area of Yinchuan, Province of Ningxia. The sediment rich water of the Yellow River is clearly visible</p>	<p>D7.14.029/XIV-29 Irrigation with bank protection in the area of Yinchuan, Province of Ningxia.</p>	<p>D7.14.030/XIV-30 Irrigation with bank protection in the area of Yinchuan, Province of Ningxia.</p>	<p>D7.14.031/XIV-31 Irrigation canal in the area of Yinchuan, Province of Ningxia.</p>
			
<p>D7.14.032/XIV-32 Irrigation canal in the area of Yinchuan, Province of Ningxia.</p>			