

KAZAKHSTAN



Source: esri

General

Kazakhstan - officially the Republic of Kazakhstan - is the world's largest landlocked country. It is a transcontinental country largely located in Asia; the most western parts are located in Europe. Kazakhstan is the dominant nation of Central Asia primarily through its oil/gas industry. It extends across both sides of the Ural River, considered the dividing line with the European continent. Kazakhstan shares borders with Russia, with Uzbekistan, with China, with Kyrgyzstan and with Turkmenistan. It has an area of 272 Mha (million hectares) with, in 2022, a population of 19.4 million, or 0.071 persons per ha (Wikipedia and United Nations, 2022).

Climate and geography

Kazakhstan has an extreme continental climate, with warm summers and very cold winters. Typical for almost all of Kazakhstan is the small amount of precipitation that falls. Precipitation in most areas is only 100 to 200 mm/year. In the central-southern part it is even below 100 mm/year (source: Wikipedia).

Kazakhstan's terrain extends West to East from the Caspian Sea to the Altay Mountains and North to South from the plains of Western Siberia to the oases and deserts of Central Asia. The Kazakh Steppe occupies one-third of the country and is the world's largest dry steppe region. Major seas, lakes and rivers include the Aral Sea, Lake Balkhash and Lake Zaysan, the Charyn River and gorge and the Ili, Irtysh, Ishim, Ural and Syr Darya rivers (source: Wikipedia).

Existing polders

Along the north-east coast of the Caspian Sea there are several polders, generally linked to the extraction of oil.

General characteristics of the polder in Kazakhstan are shown in Table I.

Proposed polders

No proposed polders have been identified.

Location of the polders in Kazakhstan as shown on the World polder map

The location of the polders in Kazakhstan is shown in Figure 1.



Figure 1. Location of the polders in Kazakhstan (source: esri – Batavialand)

The pictures by Prof. Bart Schultz are shown in Table II.

References

Group Polder Development, Department of Civil Engineering, Delft University of Technology, 1982.

Polders of the World. Compendium of polder projects. Delft, the Netherlands

United Nations, Department of Economic and Social Affairs, Population Division. 2022. *World Population Prospects, medium prognosis. The 2022 revision.* New York, USA.

Bart Schultz

Lelystad, October 2023

Table I. General characteristics of existing polders in Kazakhstan

Name	Reclamation	Area in ha	Type *)	Latitudes	Longitudes	Elevation in m+MSL	Land use
Polders along the north-east coast of the Caspian Sea			RLL	43° 33' N	51° 19' E	-27	Oil extraction
Total							

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

Table II. Pictures on polders and lowlands in Kazakhstan by Prof. Bart Schultz

			
D5 10 040/X-40*) Dike along the coastal area of the Caspian Sea, 15 - 28/6 1994	D5 10 041/X-41 Dike along the coastal area of the Caspian Sea, 15 - 28/6 1994	D5 10 042/X-42 Dike along the coastal area of the Caspian Sea, 15 - 28/6 1994	D5 13 040/X-43 Dike along the coastal area of the Caspian Sea, 15 - 28/6 1994
			
D5 10 044/X-44 Coastal area of the Caspian Sea during flooding of the Oeral River, 15 - 28/6 1994	D5 10 045/X-45 Coastal area of the Caspian Sea during flooding of the Oeral River, 15 - 28/6 1994	D5 10 046/X-46 Coastal area of the Caspian Sea during flooding of the Oeral River, 15 - 28/6 1994	D5 10 047/X-47 Coastal area of the Caspian Sea during flooding of the Oeral River, 15 - 28/6 1994
			
D5 10 048/X-48 Coastal area of the Caspian Sea during flooding of the Oeral River, 15 - 28/6 1994	D5 10 049/X-49 Coastal area of the Caspian Sea during flooding of the Oeral River, 15 - 28/6 1994r	D5 10 050/X-50 Areal picture of oil extraction area along the eastcoast of the Caspian Sea, 15 - 28/6 1994	D6 11 001/XI-1 Village and installations in relation to the extraction of oil along the eastcoast of the Caspian Sea, 15-28/6 1994

*) Batavialand/original

Table II. Pictures on polders and lowlands in Kazakhstan by Prof. Bart Schultz (continued)













			
<p>D6 11 002/XI-2 Polder with pollution in relation to the extraction of oil along the eastcoast of the Caspian Sea, 15-28/6 1994</p>	<p>D6 11 003/XI-3 Polder with pollution in relation to the extraction of oil along the eastcoast of the Caspian Sea, 15-28/6 1994</p>	<p>D6 11 004/XI-4 Polder with pollution in relation to the extraction of oil along the eastcoast of the Caspian Sea, 15-28/6 1994</p>	<p>D6 11 005/XI-5 Polder with pollution in relation to the extraction of oil along the eastcoast of the Caspian Sea, 15-28/6 1994</p>
			
<p>D6 11 006/XI-6 Polder with pollution in relation to the extraction of oil along the eastcoast of the Caspian Sea, 15-28/6 1994</p>	<p>D6 11 007/XI-7 Polder with pollution in relation to the extraction of oil along the eastcoast of the Caspian Sea, 15-28/6 1994</p>	<p>D6 11 008/XI-8 Polder with pollution in relation to the extraction of oil along the eastcoast of the Caspian Sea, 15-28/6 1994</p>	<p>D6 11 009/XI-9 Slope protection with car tyres for a dike around an area for oil extraction along the eastcoast of the Caspian Sea. 15-28/6 1994</p>

Table II. Pictures on polders and lowlands in Kazakhstan by Prof. Bart Schultz (continued)

			
<p>D6 11 010/XI-10 Slope protection with car tyres for a dike around an area for oil extraction along the east coast of the Caspian Sea. 15-28/6 1994</p>	<p>D6 11 0011/XI-11 Slope protection with car tyres for a dike around an area for oil extraction along the east coast of the Caspian Sea. 15-28/6 1994</p>	<p>D6 11 012/XI-12 Polder with pollution in relation to the extraction of oil along the east coast of the Caspian Sea, 15-28/6 1994</p>	<p>D6 11 013/XI-13 Polder with pollution in relation to the extraction of oil along the east coast of the Caspian Sea, 15-28/6 1994</p>