YANGTZE RIVER

Yangtze River is the longest river in China and the third longest in the world. Originating from the Tanggula Mountain Pass on top of the Qinghai Tibetan Plateau, it is a natural dividing line between the North and the South, and runs over 6,300km before reaching the East China Sea near Shanghai.

Beyond the basin, there is the Yangtze River Economic Belt (YREB) comprising the 9 provinces and 2 municipalities along the river; close to 600mn people live in the YREB. The YREB is not just China's socio-economic powerhouse, but the heart of global supply chains. Coal-fired power and hydropower are the key power types on this river.

The Yangtze River Basin

- **Length**: 6,300 km
- **Basin Area**: 1.72-2.07 million km²
- **Annual flow**: 666-971 billion m³
- **Flow through**: China
- **Share of ice & snow melt in upper reach**: 29% of runoff
- **Average surface water resources**: 937 billion m³
- **Basin Population**: 458 million
- **Basin GDP in 2015**: US$1,981 billion (constant 2010 price)

CLIMATE CHANGE: PAST & FUTURE TREND

- **Temperature Change (°C)** (RCP4.5)
  - 0.72 (1956-2005)
  - 1.63 (2006-2055)

- **Hydrological Changes (mm/year)** (RCP4.5)
  - **Snowfall**: -0.28 (1956-2005), -0.44 (2006-2055), -0.29
  - **Rainfall**: 2.80
  - **Runoff**: 0.67 (2006-2055)

Source: CWR, CWR’s Report “No Water, No Growth – Does Asia have enough water to develop?”, 2018, Center for Water Resources Research, Chinese Academy of Sciences, Global Power Plant Database.

This factsheet is part of CWR’s Report “No River, No Power – Can Asia’s rivers power growth in a changing climate?” 2023 and should be read in conjunction with this report.

© China Water Risk 2023, all rights reserved | Contact: info@chinawaterrisk.org
The Yangtze River and the provinces and municipalities it serves (YREB) are clearly important to China. In addition to the above shares of national production, the YREB also houses over 40% of China’s population and GDP. For perspective, if the YREB was treated as a country, it would have ranked 3rd in the terms of population; it would also be the 3rd largest economy in the world. It is not surprising then that President Xi set this river on a holistic path of ecological protection and green development. Since 2014, various policies have been introduced along the river including the setting of water-nomic targets (GDP targets tied to water use and water pollution) for each province and municipality.

Read more on the Yangtze River policies and actions from CWR's “Water-nomics of the Yangtze River Economic Belt” – CWR co-authored this report with the Foreign Economic Cooperation Office of the Ministry of Environmental Protection of the People's Republic of China; and our co-authored article “Benchmarking Water Resource & Water Environment Indicators for Policy Strategies in the Yangtze River Economic Belt.” in the Journal of Beijing Normal University (Natural Science). In addition check out CWR’s report: “Yangtze Water Risks, Hotspots & Growth – Avoiding regulatory shocks from the march to a Beautiful China”.

Note: For consistency and comparability purposes, all power plant installed capacity data used in this factsheet including national power installed capacity are obtained from the Global Power Plant Database managed by the World Resources Institute. This database however, does not reflect the entire national power installed capacity and differs from actual government statistics – discrepancies can range from 2% in Vietnam to 59% in Afghanistan. The analysis in this factsheet while not 100% accurate will suffice in providing insights into the tight water-energy-climate nexus of the HKH 16 countries. For more please see “Global Power Plant Database vs. HKH 16 country statistics” in the CWR’s Report “No River, No Power – Can Asia’s rivers power growth in a changing climate?” 2023.

Source: CWR, CWR's report “No Water, No Growth – Does Asia have enough water to develop?” 2018, Global Power Plant Database.