

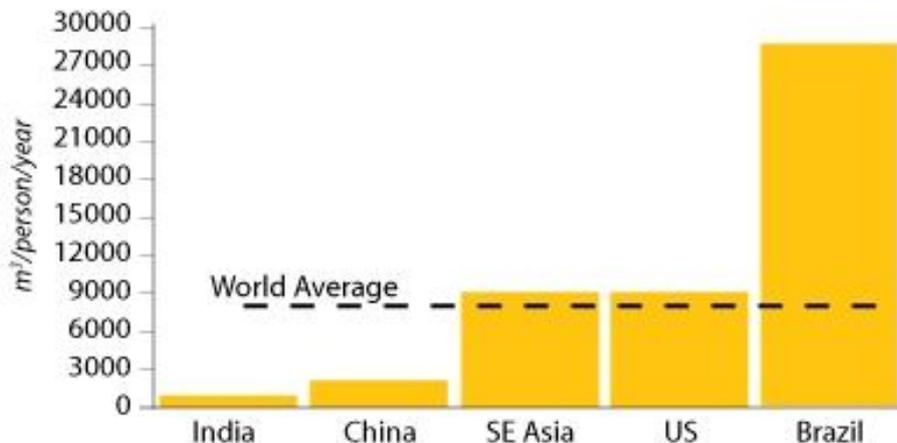
China is facing a water crisis that could threaten rare earths production and their mining industry

The US-China trade war is the biggest news right now, and perhaps a possible ban on Chinese rare earths. But what very few people know is that China is facing a water crisis. Most of northern China suffers from acute water shortages. This could be the biggest threat to China's continuing rise as a superpower, and at the very least threaten China's mining industry.

The tale of shrinking supply

Alarming statistics show in the past 25 years, 28,000 rivers and waterways have disappeared across China. In what was the second largest river in Asia, the iconic Yellow River is now a tenth of what it was in the 1940s and often fails to reach the sea. Government surveys have found that uncontrolled industrialization and overuse of pesticides and fertilizers have made 70% of China's water table unfit for human consumption. Freshwater resources per head amount to less than a third of the global average with the government warning that it will have exploited all its available water supplies by 2030. The human body, our industries, our agriculture, and our ecosystems all depend on water. Agriculture and energy account for 70-80% of all water consumption, giving all nations (not just China) a challenging balancing act.

Who Has Water... And Who Doesn't



Rare earths and zirconium production could be disrupted by a lack of water in China

What should be ringing alarm bells is how essential water is to mining, chemicals production, and manufacturing. These Chinese industries have long assumed an ongoing and plentiful supply of available water. Last week's trade war topic on rare earths pales into insignificance when we see how much rare earths rely on water. A lack of Chinese water can also cause supply disruptions of rare earths around the globe, as China supplies ~85% of rare earths to the world.

With water and agriculture being essential to a population's survival it is clear that water rationing can lead to the mining sector running short of water. This will mean China will need to start sourcing water intense and environmentally damaging raw materials (such as rare earths) from outside of China.

According to Alister MacDonald, General Manager of Marketing at Alkane Resources Ltd. (ASX: ALK | OTCQX: ANLKY):

"As China tightens environmental standards, supply chains for thousands of products are now vulnerable to long-term supply disruptions. China is committed to reducing its reliance on coal, the source of 70% of China's energy and much of its air

pollution. The crackdown on water and soil polluters will be even more severe, with thousands of chemical factories facing the risk of closure at a moment's notice, plus massive remediation costs."

Alkane Resources Ltd. 100% own a rare earths project (The Dubbo Project) located at Dubbo in the Central West of New South Wales, Australia. The Project is currently at the financing stage and also seeking off-take partners. Key metals at the Dubbo Project include zirconium, hafnium, niobium and heavy rare earth elements.



The Dubbo Project's metals overview

The Company also own the Tomingley Gold Project in central NSW (covering a massive 440km²) which is forecast to produce 42,000 to 47,000 ounces of gold in 2019 at an AISC of A\$950 to A\$1,100 per ounce.

Widespread water pollution from growing industrial development in China continues to diminish freshwater supplies. The rapid economic growth and the increased consumption of animal products, is putting a further strain on the freshwater

resources of the country. Priority for human water consumption becomes clear, and this could put the zirconium and rare earths industry way down the list. As China's water crisis deepens, Alkane's rare earths Dubbo project could go from strategic value to essential value, in supplying rare earths for the green revolution.

Alkane Resources Ltd is based in Burswood Western Australia; and has a market cap of AU\$ 165 million.