China's crypto-miners look abroad as regulators tighten noose
24 June 2021, by Beiyi Seow With Daniel Hoffman In New York and Christopher Rickleton In Almaty

Crypto-mining requires huge amounts of processing power, as is seen at this bitcoin mining data centre in Canada.

When a prefecture in northwestern China's Xinjiang region ordered a halt on cryptocurrency mining projects this month, Chris Zhu scrambled to move clients' machines southward, spending over a week to reassemble in Sichuan.

But after the shift, he received another notice—authorities in southwestern Sichuan were also putting a stop to the industry, in a turbulent year that has lost his company millions.

"We're thinking of ways to go abroad," said Zhu, whose company handles the maintenance of mining machines.

He is among businessmen and miners now planning to seek their fortunes overseas—in countries ranging from the United States to Kazakhstan—as Beijing tightens the screws on the industry.

Crypto-mining is the process by which computers generate a series of complicated hexadecimal number sequences needed to mint new virtual currency and validate financial transactions—a task that requires massive amounts of processing power.

Chinese mines power nearly 80 percent of the global trade in cryptocurrencies despite a domestic trading ban since 2017, relying on the competitive advantage of cheap access to power and hardware.

But several provinces have recently ordered the closure of mines.

Mountainous Sichuan was China's second-biggest bitcoin mining province, according to data compiled by Cambridge University that tracked the world's largest digital currency.

Authorities have also ordered shutdowns in the coal- and hydropower-rich regions of Inner Mongolia and Qinghai, with citizens encouraged to report illegal operations.

More than 90 percent of the country's bitcoin mining capacity has now been shut down, according to estimates published by state media tabloid Global Times.

Major relocation

Zhu estimates that 10 to 20 percent of miners in China have started their move abroad.

"We spent around 10 days getting to Sichuan, only for operations to stop there too," he told AFP. "It's going to be tough to continue here."

Zhu's company INBTC handled a 260-megawatt site in Xinjiang before being forced to pull the plug.

"With the hit on Sichuan, we had nothing left," he said.
On Monday, US-listed Chinese firm BIT Mining announced it had delivered its first batch of 320 mining machines to Kazakhstan, after Sichuan authorities ordered power companies to stop supplying electricity to crypto-miners.

It will also ship its remaining mining machines abroad.

Nic Carter, general partner at Boston-based venture fund Castle Island Ventures, considers the situation "an effective terminal shutdown on mining in the country".

He said that 50 to 60 percent of the bitcoin hashrate—a measure of the overall computing power used in the bitcoin network—could be relocated out of China.

"Everyone I've talked to, in China as a miner, is looking for hosting outside of the country," said Carter.

Broadening horizons

Industry players say Central Asia and North America are popular destinations Chinese miners are considering.

"When you could mine in China, many people were not willing to go abroad," said a Chinese miner surnamed Li, who has three mines in Kazakhstan.

He said he moved his operations out in 2018 for cheaper electricity, and is now helping friends export "several thousand" bitcoin mining machines.

But Alan Dorjiyev, president of the Association of Blockchain and Data Center Industry of Kazakhstan, said that while interest is growing, Canada and the United States are more likely destinations.

He cited "stronger cultural ties" through local Chinese communities, but said that Kazakhstan had a "less attractive" tax regime and jurisdiction.

Carter said upstate New York is another popular destination, while Texas is often cited as a mining location. The southern state's governor also has an accommodating stance to mining.

"Historically, the biggest risk to (miners) is not power prices... it's political risk," he said.

For now, industry players say many are still looking for suitable destinations.

Energy, financial concerns

Analysts have pointed to financial risks and energy goals as reasons behind China's crypto clampdown.

Bitcoin and other cryptocurrencies cannot be traced by a country's central bank, making them difficult to regulate.

Beijing is also believed to fear the proliferation of illicit investments and fundraising, with crypto transactions threatening controls.

On Monday, China's central bank said it told five major banks and payment giant Alipay to halt crypto-related transactions.

Another factor is energy consumption in mining, as Beijing forges ahead with plans to achieve net-zero emissions by 2060.

Although miners in Sichuan often use hydropower to power their equipment, with some moving operations there in the rainy summer to tap these resources, China also relies on a particularly polluting type of coal to power some of its mining.

Crypto-mining is expected to use 0.6 percent of the world's total electricity production in 2021, according to Cambridge University data.

With relocation underway, Carter of Castle Island Ventures said: "Transactions will clear more slowly, for a period of months probably."

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