

Chinese Path to Modernization: Research and Exploration

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**Anti-poverty,
balance,
coordinating...**

Chinese Geography

- Security
- Climates
- Strategic options





Which **poor part of China** do you refer to? Can you give just one specific example that China has failed or ignored to develop?

If you are not convinced, let us just look at the situations from the poorest part of China. Here are the last four provinces with the least GDP per capita (nominal) in China: [List of Chinese administrative divisions by GDP per capita - Wikipedia](#) ↗:

2019

- Gansu province (**\$4735**, 26 million people)
- Yunnan province (**\$5612**, 48 million people)
- Guizhou province (**\$6233**, 36 million people)
- Guangxi province (**\$6270**, 49 million people)

2019

- India (**\$2036**)
- Vietnam (**\$3551**)
- Mongolia (**\$4394**)
- Albania (**\$5289**)
- South Africa (**\$6377**)

Gansu province

God doesn't want you to live here. But you insisted.

—Janus Dongye

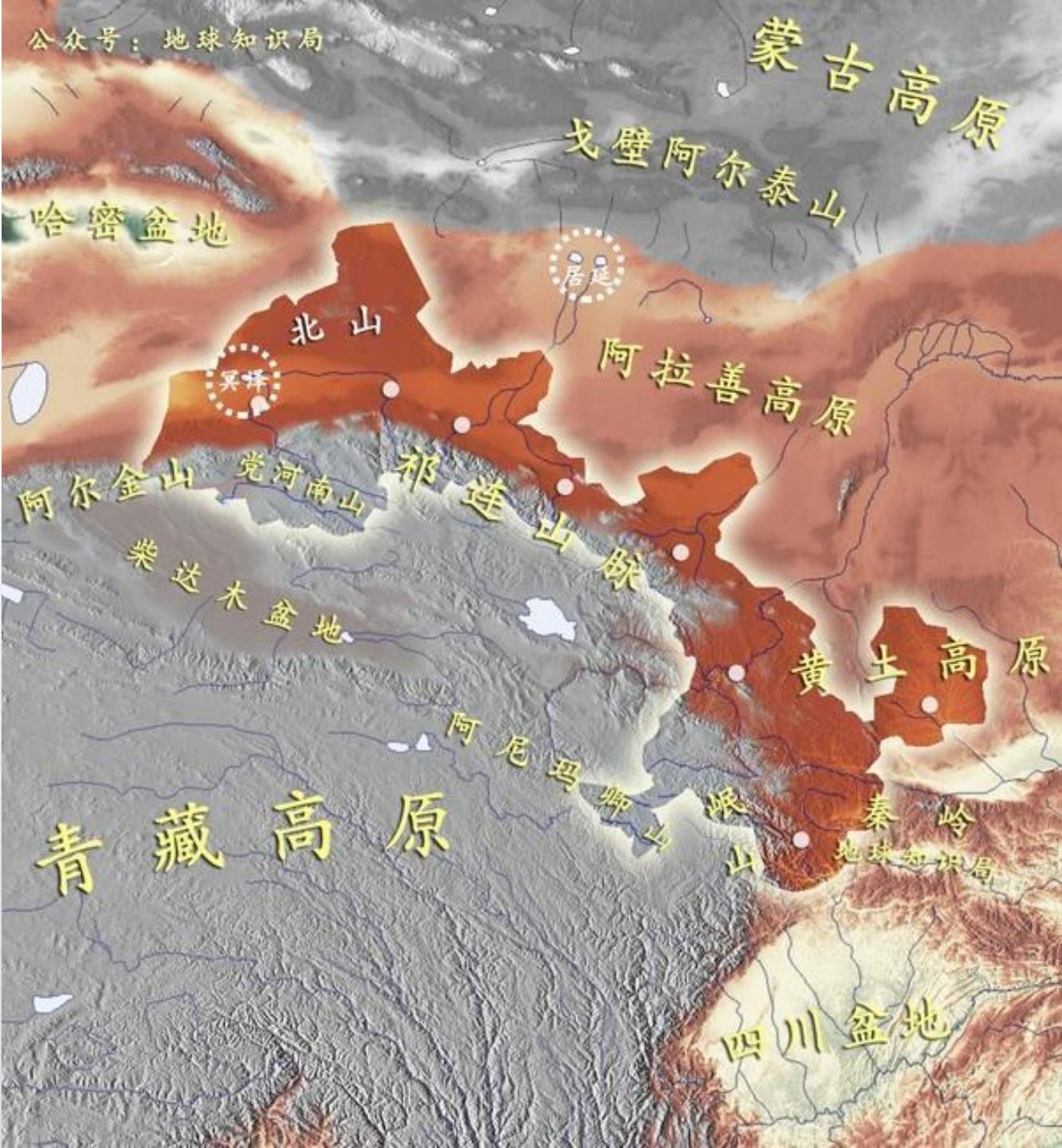
◆ Harsh geographical environment

- **On one side**, you have the massive freezing Tibetan Plateau.

(一面，甘肃大部分地区地处寒冷的青藏高原)

- **On the other side**, you have the deadly Gobi Desert.

(另一面，部分地区是荒无人烟的戈壁沙漠)



**Have a look at the following picture.
This is what a typical village in Gansu looks like.**



**Red stones, golden sands and
deep valleys. There are a lot
of sites just like the death
valley and red canyon in the
USA.**

(红色的岩石、黄色的沙土、幽深的峡谷。有很多地方就像美国的死亡谷和红色峡谷一样)

Imagine you are living here.



- You grow your food in the valleys but you have virtually no rainfall at all. Even if you managed to grow a few tons of wheat magically, where you do sell? To the nearest city? That's fine. Please drive 5 hours out of this god damn dry mountains.

Imagine you are living here.

- Even if you manage to find a customer to buy your wheat. He will buy your wheat for \$150 per ton. But your transport and fuel cost to move the wheat out of these mountains has exceeded \$100 per ton. Considering other costs, okay ... , so do you grow wheat just for **losing money?**



企鹅号 六月照相馆

What has the Chinese government done to address this problem?



a “Level 5” bridge



a “Level 50” bridge

- ◆ For the 13th Five Year Plan (2016–2020), the central government has poured a huge amount of money in **building expressways and railways** across these God damn hills.

Though these “Level 50” bridges are indeed expensive to build, they are very cost effective if you consider the amount of fuel saved for trucks, trains, and car!

Even if there is already a “level 5” road along the valleys, the government is still not satisfied.

2019年，甘肃省“50级”高速公路总长度超过4242公里（限速120公里/小时），甚至超过墨西哥。

In 2019, the total "Level 50" expressway length in Gansu has exceeded 4242km (speed limit 120km/h), which is even longer than Mexico.

它几乎是印度“50级”高速公路总长度的三倍。

And it is almost three times longer than India's total length.

不仅仅是高速公路，甘肃还有4条时速在250km到350km的高速铁路——宝兰、成兰、兰新、兰渝。

Not only expressways, but Gansu also has four lines of high-speed railways running at 250km/h to 350km/h (宝兰, 成兰, 兰新, 兰渝).

在接下来的“十四五规划”(2021-2025)中，中国政府承诺要让甘肃省每一个地级市都通上高速公路和高速铁路。

In the next 14th Five Year Plan (2021-2025), the government will promise to connect every prefecture city in Gansu with high-speed railways and expressways.

Economic benefits.

想象一下，你住在甘肃一个偏远的村庄，你想从淘宝（类似于中国版的亚马逊）购买一部手机。2019年从深圳到敦煌，运送一个1公斤的包裹需要多少钱？注意总距离约为3500km。

Well, here is another real-life example. Imagine you live in a distant village in Gansu and you want to buy a mobile phone from Taobao (Chinese Amazon), what does it cost to ship a package of 1kg from Shenzhen to Dunhuang in Gansu in 2019? Note that the total distance is around 3500km.

超过3500公里的运输总成本为15元人民币（2.2美元），并承诺在3天内到达。

The total cost for shipping over the 3500km is 15RMB (\$2.2) and it is promised to arrive in three days.

同样的距离、同样重量的物品、同样耗时、同样的情况，在美国的运输成本是26.13美元。

For comparison, the total cost for shipping a 1kg package from Boston to Reno in Nevada (a similar 4000km) in the US is \$26.13 according to the UPS shipping price calculator under the UPS' three-day service.

因此，在美国，它需要多10倍的钱来做同样的事情！但是在计算GDP的时候，这些成本都是算在内的。26.13美元得出来的GDP当然比2.2美元得出来的高。

Therefore in the US, it requires 10x more money to do the same thing! And note that they are both counted in the GDP calculation in both countries. Is it fair? Of course not. This applies to other services too.

Take a real-life example!



That means Gansu is not as “poor” as we originally thought.



3500km

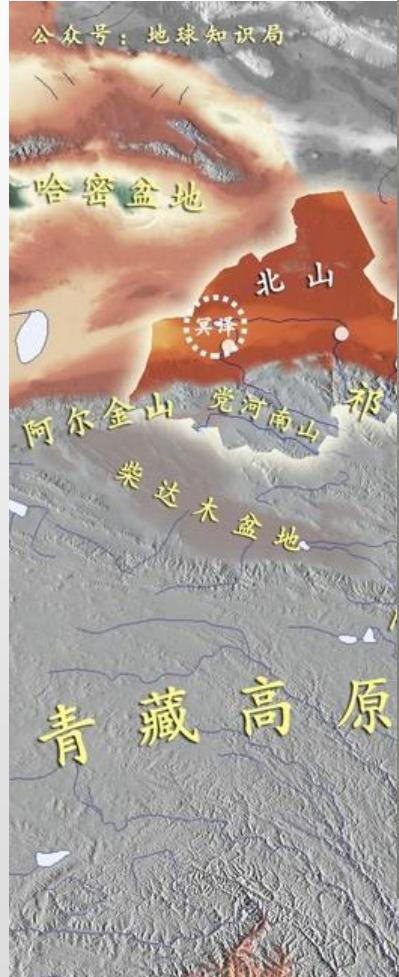
¥ 15 (\$2.2)

4000km

\$26.13

You want to buy a mobile phone from Taobao, what does it cost to ship a package of 1kg from Shenzhen to Dunhuang in Gansu in 2019?

◆ Adapt to local conditions



shore wind farm.
Gansu Jiuquan Windfarm
(甘肃酒泉风电基地)

difference means
n its renewable
's largest on-

甘肃也拥有丰富的“绿色”自然资源——风力！政府为此做了什么？

因地制宜

Gansu also has rich "green" natural resources - wind power! What has the government done to this end? Suit one's measures to local conditions

一面有寒冷的青藏高原。另一面，则是酷热的戈壁沙漠。温差导致持续的风力。

On one side, you have the cold the Qinghai-Tibet Plateau. On the other side, you have the hot Gobi desert. Boom! The temperature difference means wind constantly blows.

因此，甘肃是可再生能源领域的领导者。它拥有世界上最大的陆上风力发电厂：

Therefore, Gansu is the leader in its renewable energy sector. It has the world's largest on-shore wind farm.



What's more,
there are so many **on-shore solar farms** in Gansu as well.



Gansu Wuwei Solarfarm
(甘肃武威太阳能发电厂)



Gansu Dunhuang Tower Solarfarm
(甘肃敦煌太阳能发电项目)

China's UHV transmission technology

The transmission voltage is generally divided into **high voltage**, **ultra-high voltage** and **Extra-high voltage**. Extra-high voltage power grid refers to the AC power grid above 1000 kV or the DC power grid over 800 kV. The capacity of 1000 KV AC UHV transmission line to transmit electricity (technically called transmission capacity) is five times that of 500 KV UHV transmission line.



电力实事



电力实事





In summary, these conclude the development in
the poorest province of China — Gansu.

◆ Yunnan & Guizhou province



Just like the wrinkles of the skin

As the Indian subcontinent continues to squeeze, terrains around here are becoming more and more similar to “wrinkles”, as mountains are squeezed higher and the rivers continue to carve valleys deeper.

Imagine you are living here.



Are you desperate? Most likely.

As a farmer, can you get rich if you live here? That's nearly impossible. If you are ill, you have to call a helicopter to fly to the nearest hospital. But you have to be rich to afford a mobile phone. No signals? Oh, why not just wait and die?

贵州六盘水的北盘江大桥——全世界最高的桥：
Beipanjiang bridge, Liupanshui, Guizhou
(World's highest bridge)



云南宣威市的普利特大桥——全世界第三高的桥：
Pu-Li-Te Bridge, Xuanwei, Yunnan (World's third highest bridge)



◆ High Bridges



**Jin-An Bridge, Lijiang, Yunnan
(World's fourth highest bridge)**
(云南丽江的金安大桥)



**Ya-Chi-He Bridge, Qingzhen, Guizhou
(World's fifth highest bridge)**
(贵州的鸭池河大桥)

◆ High Bridges



Liu-Guang-He Bridge, Liutong, Guizhou
(World's sixth highest bridge)
(贵州的六广河大桥)



Ya-Chi-He Bridge, Qingzhen, Guizhou
(World's fifth highest bridge)
(贵州的鸭池河大桥)

Compared to India,

For comparison, a s
Bridge in J&K. Cher
was originally inten
Indian people have

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d in 2003 and it
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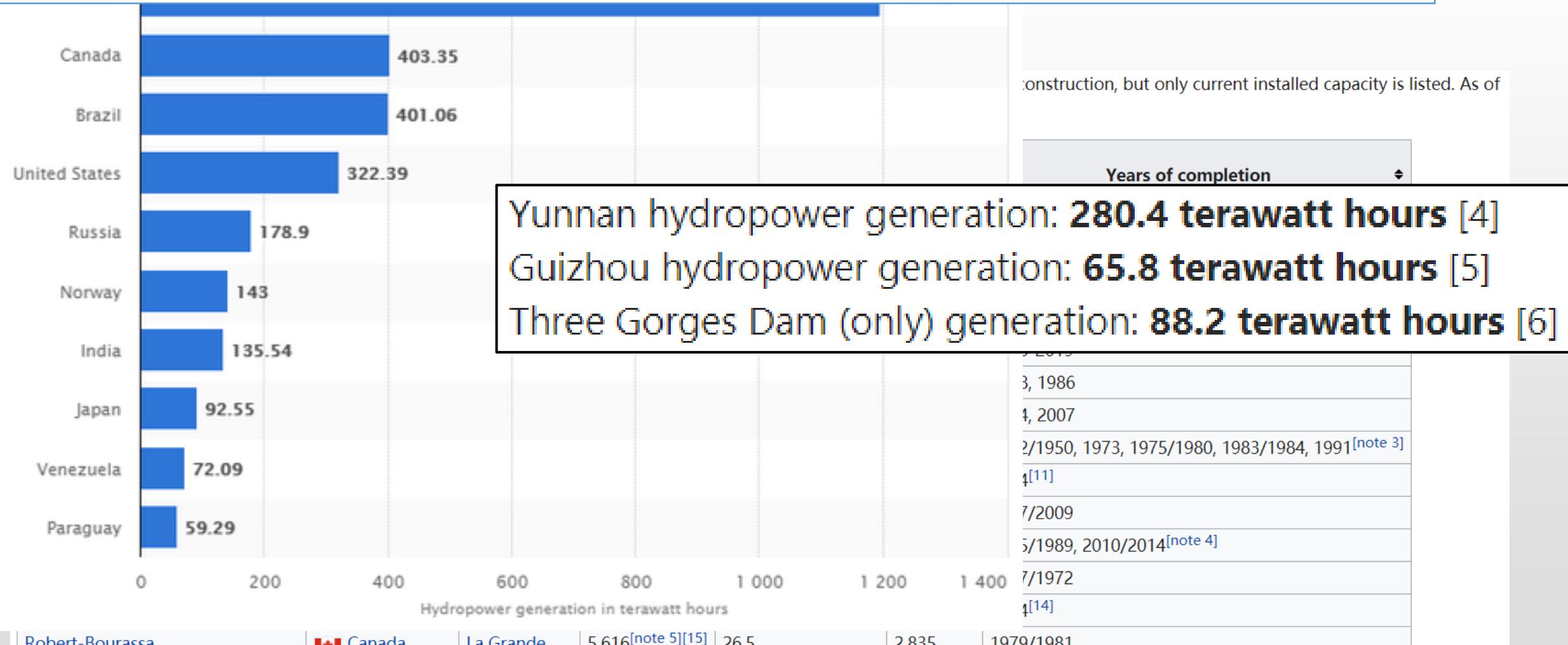
Basically nearly the world's top 100 highest bridges are all from Yunan and Guizhou.



If the Indian engineers wanted to delay for another 2 years, the bridge would no longer be the world's tallest railway arch bridge. The new King will be crown to the Sichuan-Tibet railway bridge.

◆ Hydroelectricity (水电)

They contribute to **30%** of the hydroelectricity generated in China.



◆ 5G Network Coverage



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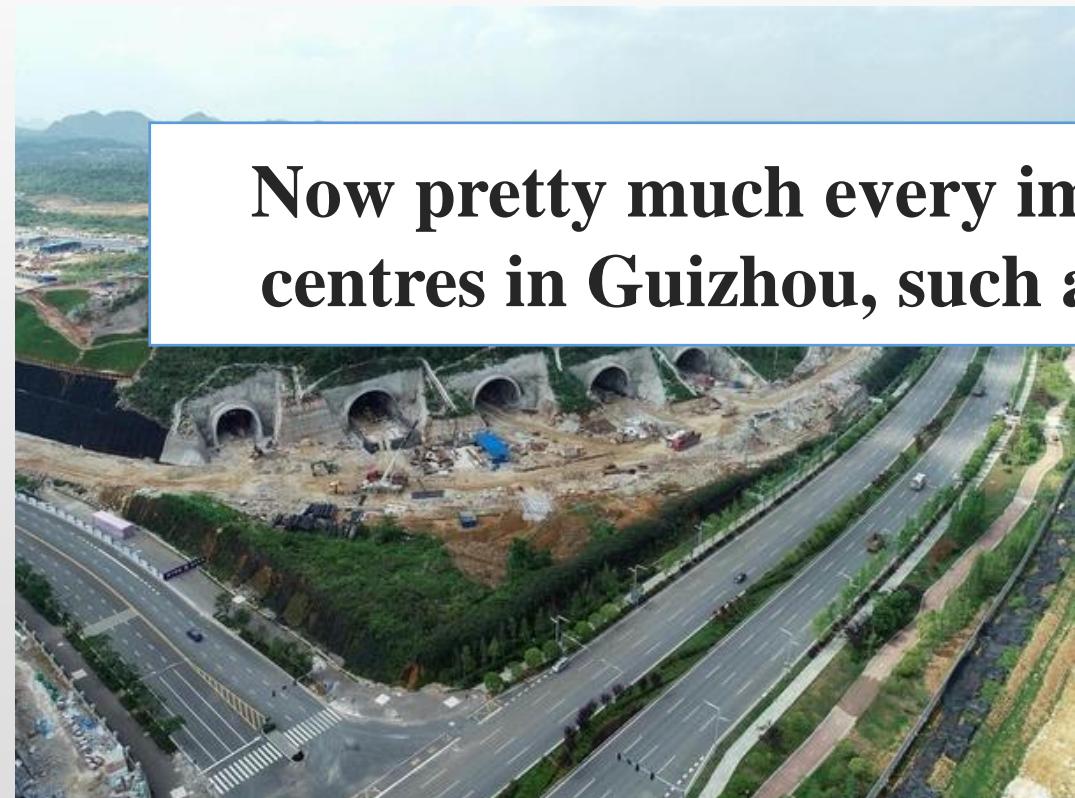
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villages and Yunnan is at 65% and counting.

◆ Data centres

Thanks to the abundance of electricity and water resources for cooling, the Chinese government has chosen Guizhou as its most important base for data centres.

Now pretty much every important IT company has set their data centres in Guizhou, such as Alibaba, Huawei, China Mobile, etc.



Tencent T-Block data centre
(腾讯七星数据中心)



Apple iCloud China (Guizhou) Data Center Project
(苹果iCloud中国(贵州)数据中心项目)

Aluminum production in various countries



most of the above projects are led by Chinese state enterprises. They lose money for doing this. But they bring huge social benefits to the general people. This is called "socialism with Chinese characteristics" and it is working.



Guangxi province 广西

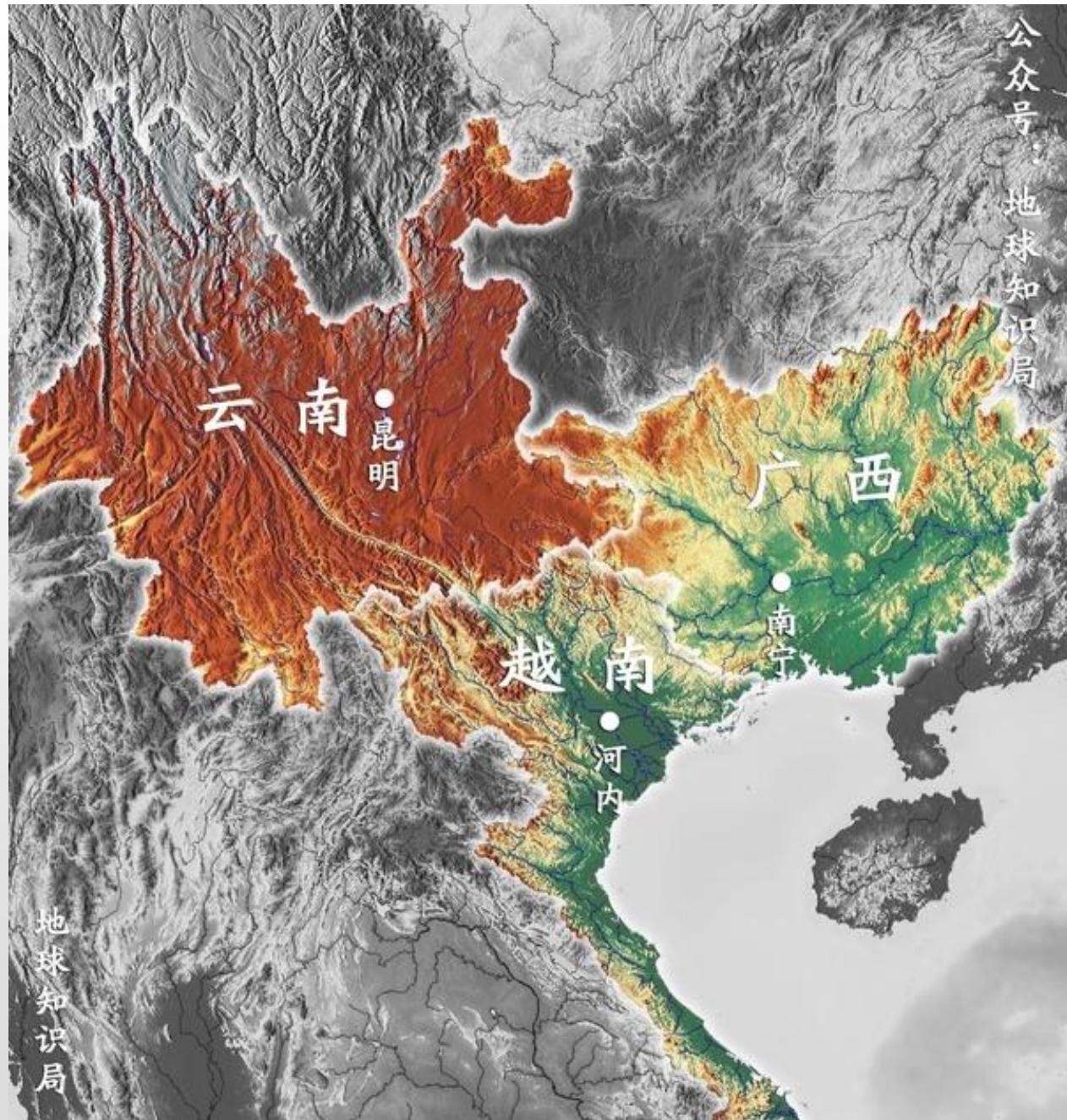
◆ Geographical terrains

plenty of

- flooded plains (河漫滩平原)
- hilly mountains (丘陵山脉)
- coastal areas (沿海地区)

However,

“all of its tributary rivers are flowing east instead of heading the south to the sea.”



即使今天在中国，由于水运成本低廉，仍然有很多重型货物通过河流运输，这对广西来说是一个问题。由于区内所有河流向东流，因此

先经过广州才能出海。对于广西首府南宁而言，最大的尴尬之处在于，即便南宁距离南部海岸只有100公里，货轮却需要向东航行1000公里才能到达国际航运中心。这导致了高成本和人才流失。



High cost → loss of investment and talents



shipment from Guangxi has to go through Guangzhou and Hong Kong.

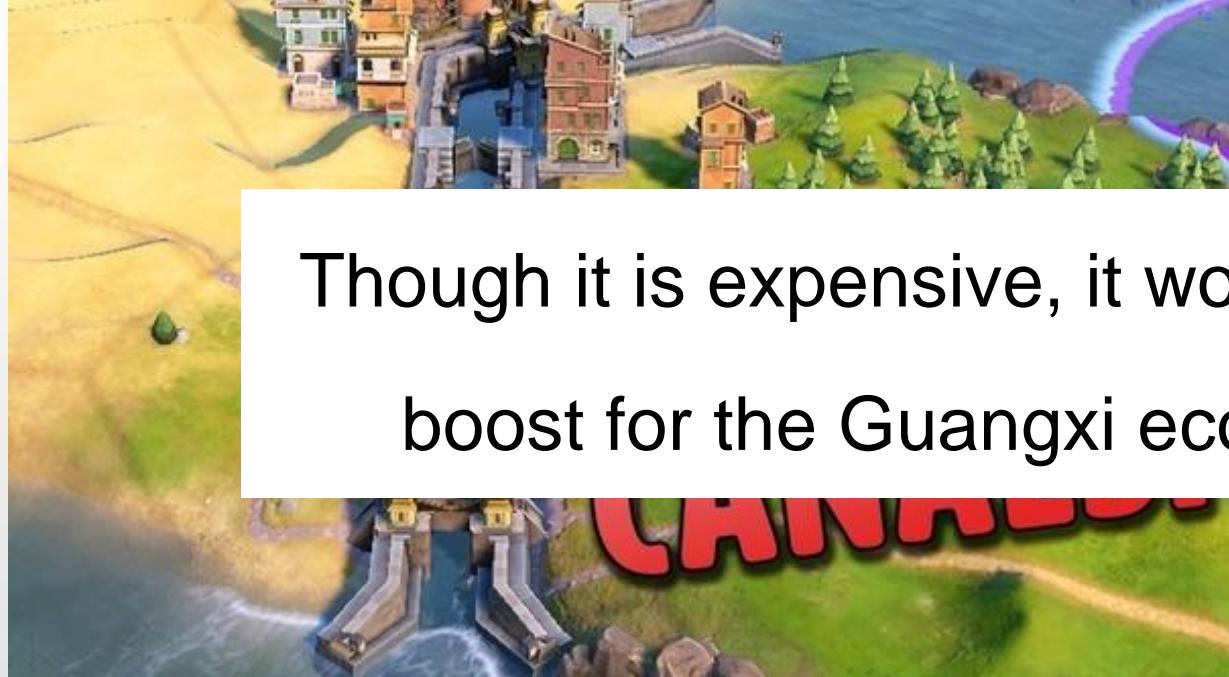
对于广西首府南宁而言，最大的尴尬之处在于，即便南宁距离南部海岸只有100公里，货轮却需要向东航行1000公里才能到达国际航运中心。

这导致了高成本和人才流失！

◆ Talent loss



So what has the Chinese government done?



Though it is expensive, it would be a truly significant boost for the Guangxi economy if it were built.



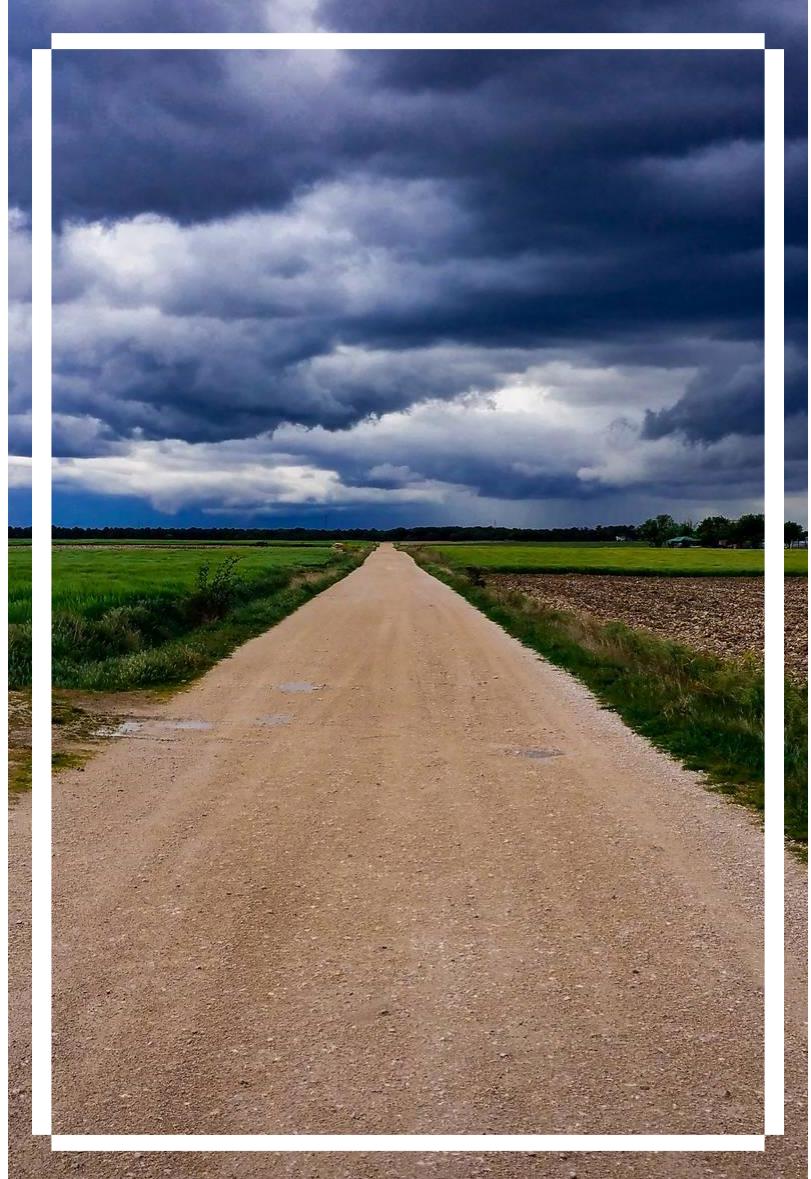
- ◆ For the 13th Five Year Plan (2016–2020) in Guangxi, the CPC (the Communist Party of China) is planning to “evaluate” the possibility of the **Ping-Lu Canal** (平陆运河) that connects the Pingtang river to the Qinjiang river in the south.

◆Build expressway



Lifting All Poor Counties Out of Poverty

China set up a special organization in 1986 to take charge of development-oriented poverty alleviation. This organization, the State Council Leading Group for Economic Development of Poor Regions, identified 331 poor counties across the country, and the list was subsequently adjusted three times based on changing conditions.



"Pulling up seedlings to help them grow."

——XI JINPING

During an inspection tour in Chongqing in 2016, Xi Jinping pointed out that poor counties would be removed from the poverty list one by one once they had escaped poverty. These counties must neither be content with the status quo and wait for outside assistance, nor seek unwarranted credit by "pulling up seedlings to help them grow."



By 2020, all rural poor population and poor counties are to be lifted out of poverty.

By late February 2020, 601 of China's 832 poor counties had announced to have eliminated poverty, 179 were going through national evaluation reviews, and the remaining 52 were expecting to be removed from the poverty list soon. Overall regional poverty has been basically eliminated throughout the country.



In conclusion,

And it is also worth noting that most of the above projects are led by Chinese state enterprises. They lose money for doing this. But they bring huge social benefits to the general people. This is called "socialism with Chinese characteristics" and it is working.

That's why the West such as the US and Europe could not achieve nor even consider doing it.&

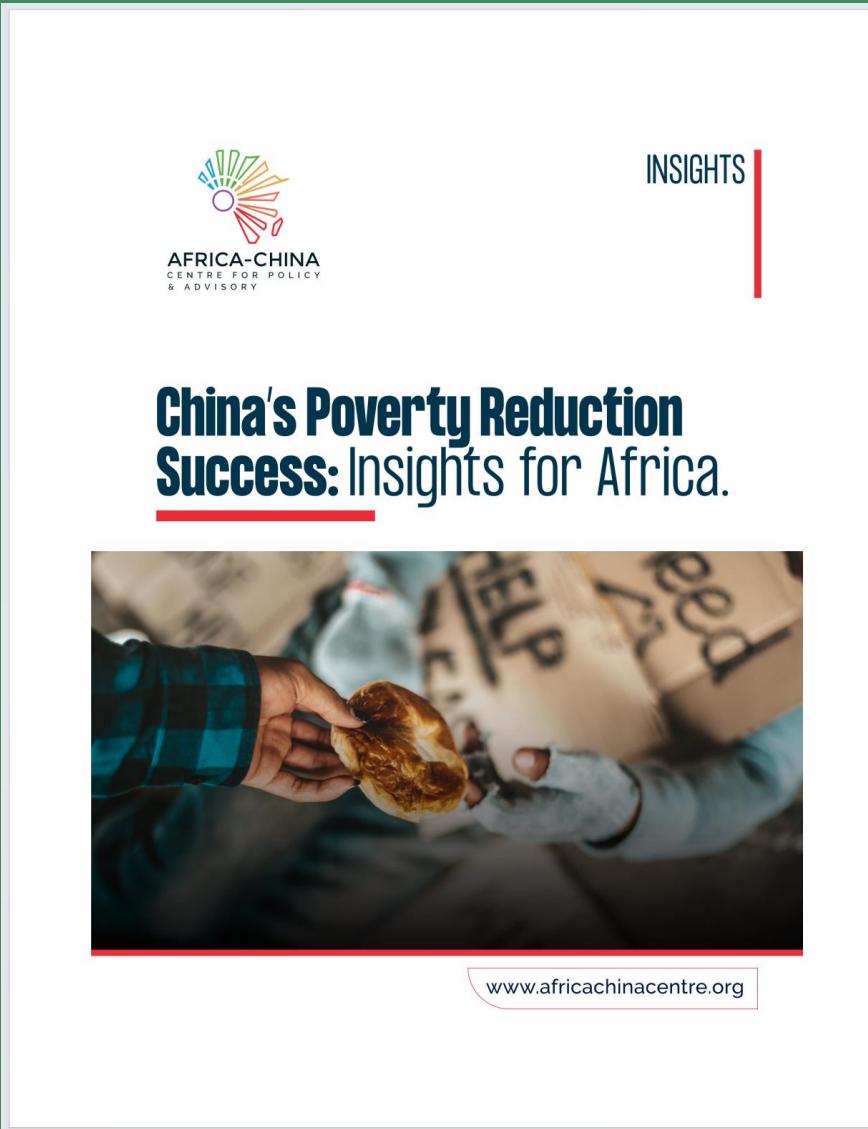
这就是“中国特色社会主义”在发挥优势！



According to your opinion what is "socialism with Chinese characteristics"?

作答

please read following article



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End of Part V

