



# *Chinese water diplomacy in Argentina. A critical assesment*

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## South-to-North Water Diversion Project



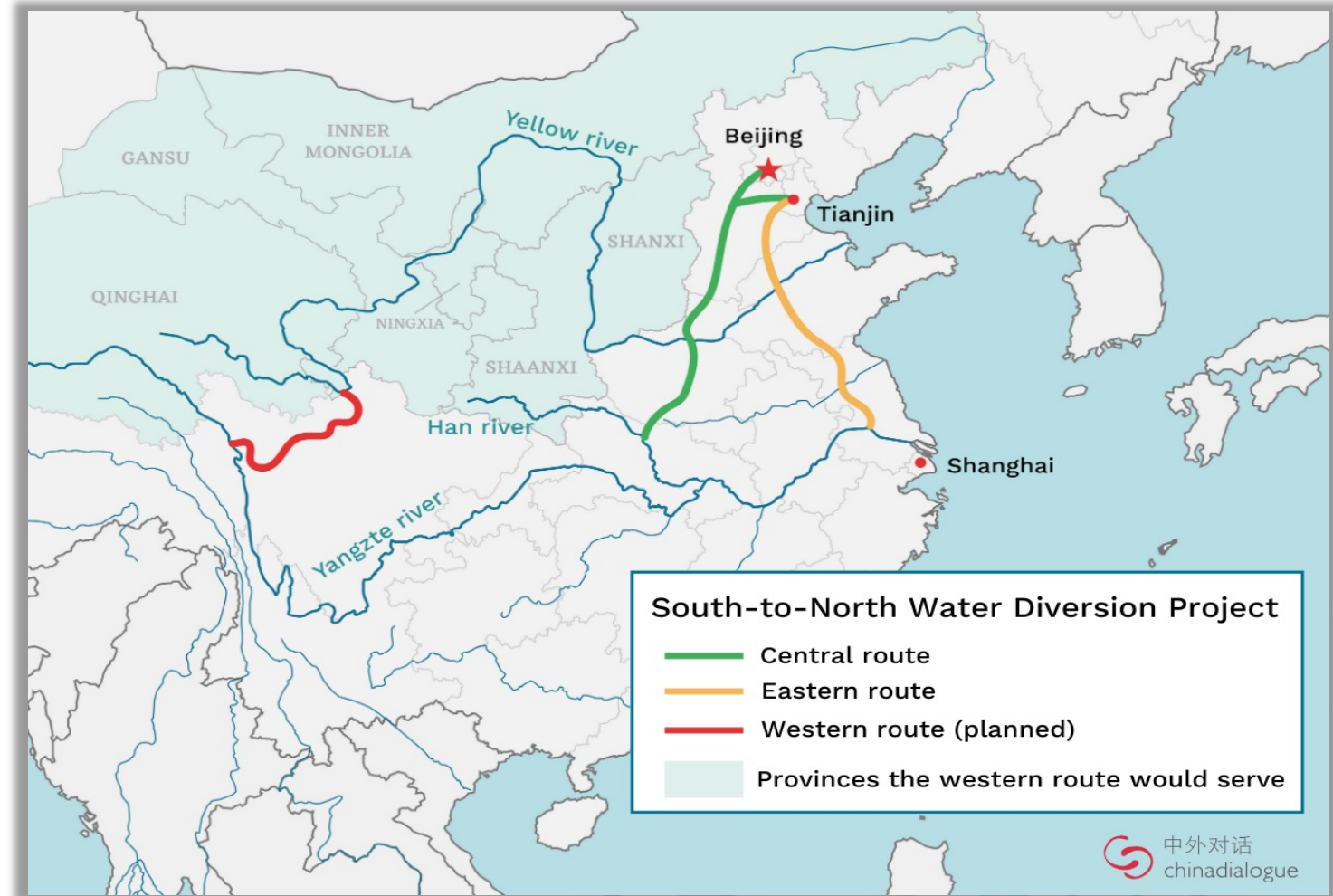
It is a **multidecade infrastructure mega-project** that ultimately aims to channel 44.8 billion cubic meters of fresh water each year from the Yangtze River in southern China to the more arid and industrialized north through three canal systems.



## South-to-North Water Diversion Project (2)

*“The South has plenty of water and the North lacks it, so, if possible, why not borrow some?”*

**Mao Zedong**





# Three Gorges Dam

The Three Gorges Dam is the world's largest power station in terms of installed capacity (22,500 MW)





## Three Gorges Dam (2)



In 2005, NASA scientists calculated that the shift of water mass stored by the dams would increase the total length of the Earth's day by 0.06 microseconds and make the Earth slightly more round in the middle and flat on the poles.



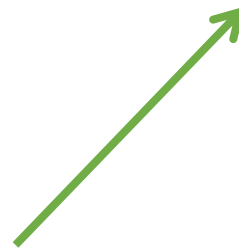
## Water and Productivity

Three out of every four jobs depend directly on water. This means that water shortages and barriers to access to water and sanitation could limit **economic growth** and **job creation** in the decades to come.



According to a study published by World Water Development Report, more than half of the world's workforce is employed in eight sectors dependent on water and natural resources: **agriculture, forestry, fishing, energy, resource-intensive manufacturing, waste recycling, construction and transport.**

More than 1.4 billion jobs, or 42% of the world's total workforce, are highly dependent on water. It is also estimated that 1.2 billion jobs, or 36%, have an average level of dependence on water. Essentially, 78% of jobs in the global workforce are water-dependent.



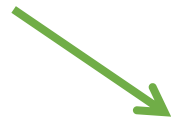


# Water and Energy

Water and energy systems are inextricably interdependent. The water sector is a major consumer of energy for purposes such as water treatment, pumping and desalination.



Similarly, water is essential for cooling power plants, electricity generation and bio-fuel production, as well as in the extraction, mining, processing, refining and disposal of fossil-fuel residues



44% of total global water withdrawals are used for energy production, a dominant share of which is cooling water in thermoelectric electricity generation







## Water and Food

Agriculture uses an astonishing 70% of all freshwater worldwide, and around a third of the water in agriculture is linked to **meat** and **dairy** production.



The largest part of livestock's 'water footprint' stems not from providing water for animals to drink, but from the water used to grow the grain - e.g. wheat, maize/corn and oats - fed to intensively farmed animals.





## Chinese Hydro-Diplomacy: the case of Sinohydro Corporation (SC)

SC is a large Chinese state-owned company specialised in the construction of **hydroelectric power plants**. According to many experts, it is the largest hydropower plant company in the world.



The company is involved in research and development of electrical power plants, besides architecture, construction, and production of other types of machinery.



Founded in 1950 with the headquarters in Beijing, SC is present on all continents at various levels and has operational offices in many cities. Concerning Europe, the operational headquarters chosen by Beijing is Belgrade.





# Sinohydro Corporation in Asia





# Sinohydro Corporation in Africa





# Sinohydro Corporation in Nigeria

Africa - the continent China has paid particular attention in recent times - is undoubtedly among the areas in which **Sinohydro Corporation** has worked most assiduously.



中国水电  
SINOHYDRO





## Reasons behind Beijing's focus on Nigeria

The Nigerian economy is currently the most **solid** and **dynamic** within the African continent. Abuja has recently surpassed South Africa for the continental economic supremacy.



In addition, Abuja is the most **demographically relevant country** not only in sub-Saharan Africa but in the entire continent.



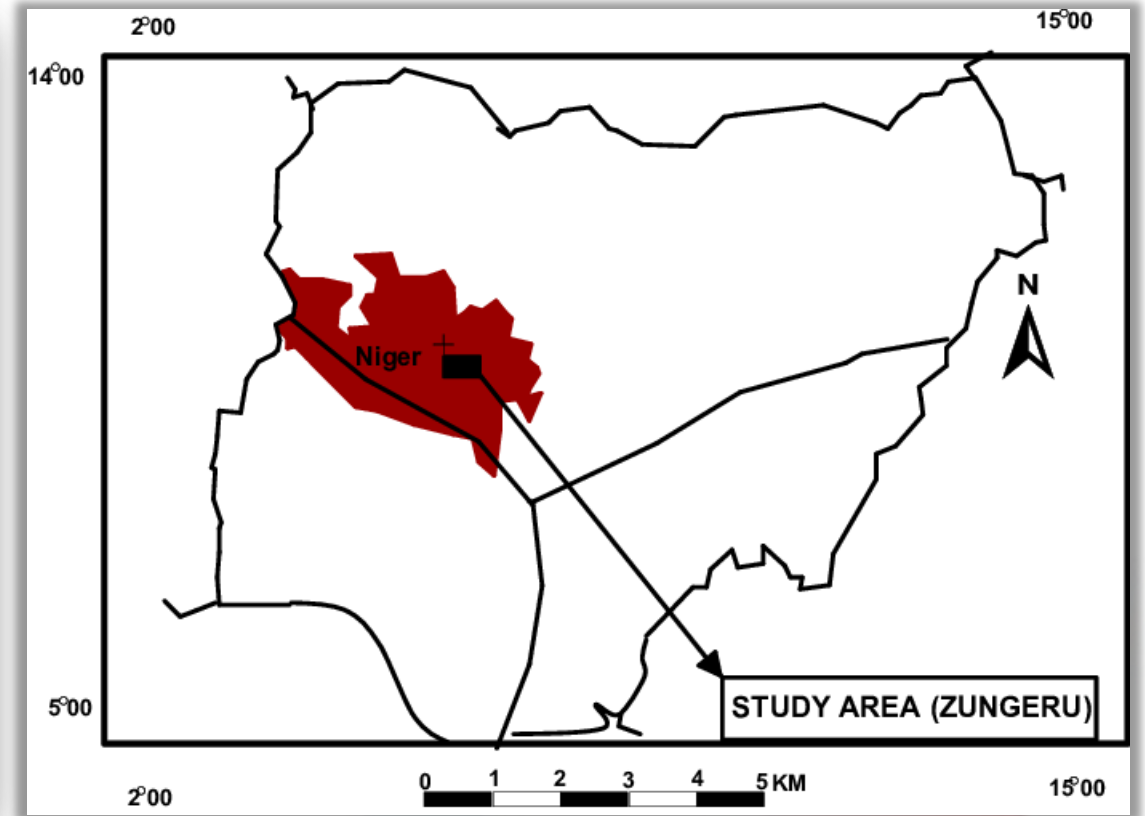
Nigeria is a real economic-demographic “giant” to keep under close observation in the coming years due to the interesting performances achieved recently.



AB AQVA



# The Zungeru hydroelectric power station – Nigeria (1)





## The Zungeru hydroelectric power station – Nigeria (2)



The power plant, still under construction, is the result of a 2012 project with a total value of approximately USD 1.3 billion.



Once completed, the Zungeru power plant will produce approximately 700 MW of hydroelectric energy.



Zungeru will be in second place in the ranking of Nigerian hydraulic structures after the Kainji power plant, located in the north-west of the country capable of generating 760 MW of energy.



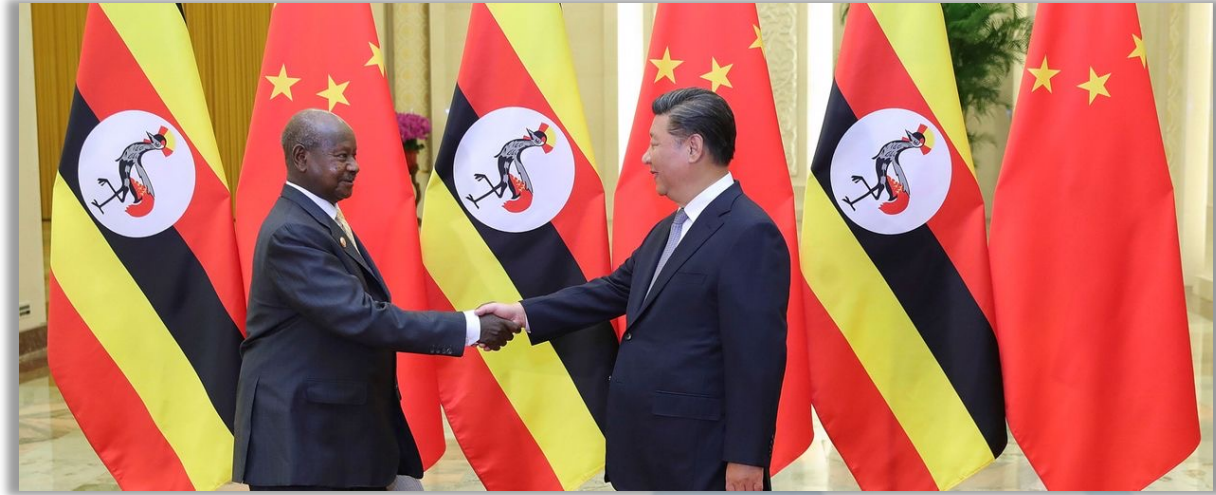


## Reasons behind Beijing's focus on Uganda

Uganda is a growing nation and is open to foreign investors with good prospects in the **infrastructure, energy, machinery and agribusiness** sectors.



From a hydro-strategic standpoint, Uganda is an important country thanks to the presence on its territory of **many watercourses** of considerable size and due to the control of a vast percentage of **Lake Victoria**, the largest tropical lake in the world.





# The Karuma hydroelectric power station – Uganda (1)





## The Karuma hydroelectric power station – Uganda (2)

In 2013, **Sinohydro Corporation** was chosen by the Ugandan government as the **main contractor** for the completion of the Karuma hydroelectric power plant, an important hydroelectric structure capable of generating approximately 600 MWs of energy at a cost of **USD 2.2 billion**.



Once completed, the power plant, located near the Karuma Falls on the White Nile, will be the largest hydraulic structure in the country.





## Chinese reactions to international criticism of hydro-diplomatic activities in Uganda



**Chinese Embassy in Uganda** · 26 nov 2021

@ChineseEmb\_Uga · [Segui](#)

"Why is money offered by Western countries to developing countries considered 'assistance for development', while the money offered by China is labelled as 'debt trap'? This view is NOT logic or correct!", said Wu Jianghai, Assistant Minister of Foreign Affairs, China



**Chinese Embassy in Uganda**

@ChineseEmb\_Uga · [Segui](#)

"Which of the Chinese projects in Africa have been confiscated in Africa? NONE! The hype surrounding Chinese 'debt trap' in Africa have NO factual basis and is being pushed on malicious grounds", said [@WuPeng\\_MFACHina](#), Director-General, Department of African Affairs, MoFA, China



4:29 AM · 26 nov 2021



## Argentinian urgency for international alternative economic support

Currently, Argentina, after a **troubled relationship** with international banking institutions, no longer has access to the funds that guaranteed a certain precarious stability.



Buenos Aires has a **debt of over USD 40 billion** with the **International Monetary Fund (IMF)** and appears close to exhaust the monetary reserves





## Argentinian resources coveted by China (1)

The very name of the country - Argentina - derives from the Latin word “**argentum**”, (silver) a precious metal still nowadays present in various mines across the nation

In addition to silver, **shale gas** and **oil** are regularly extracted in various plants, among which that of **Vaca Muerta** in the province of Neuquén, in the south-east of the country, stands out.

Despite being a very large deposit (36,000 km<sup>2</sup>), the **lack of adequate infrastructure** severely limits the extraction of fossil fuels which could be used to heat the homes of millions of citizens or exported to external markets.





## Argentinian resources coveted by China (2)

Argentina is the world's third largest producer of lithium, with significant production potential also for silicon and graphite.

These materials, even more than oil and gas, are considered of **absolute strategic interest** for China, given their essentiality in the production of mobile phones, tablets, laptops and batteries for electric vehicles.

These goods are produced in large quantities on Chinese territory.



Argentinian lithium mine

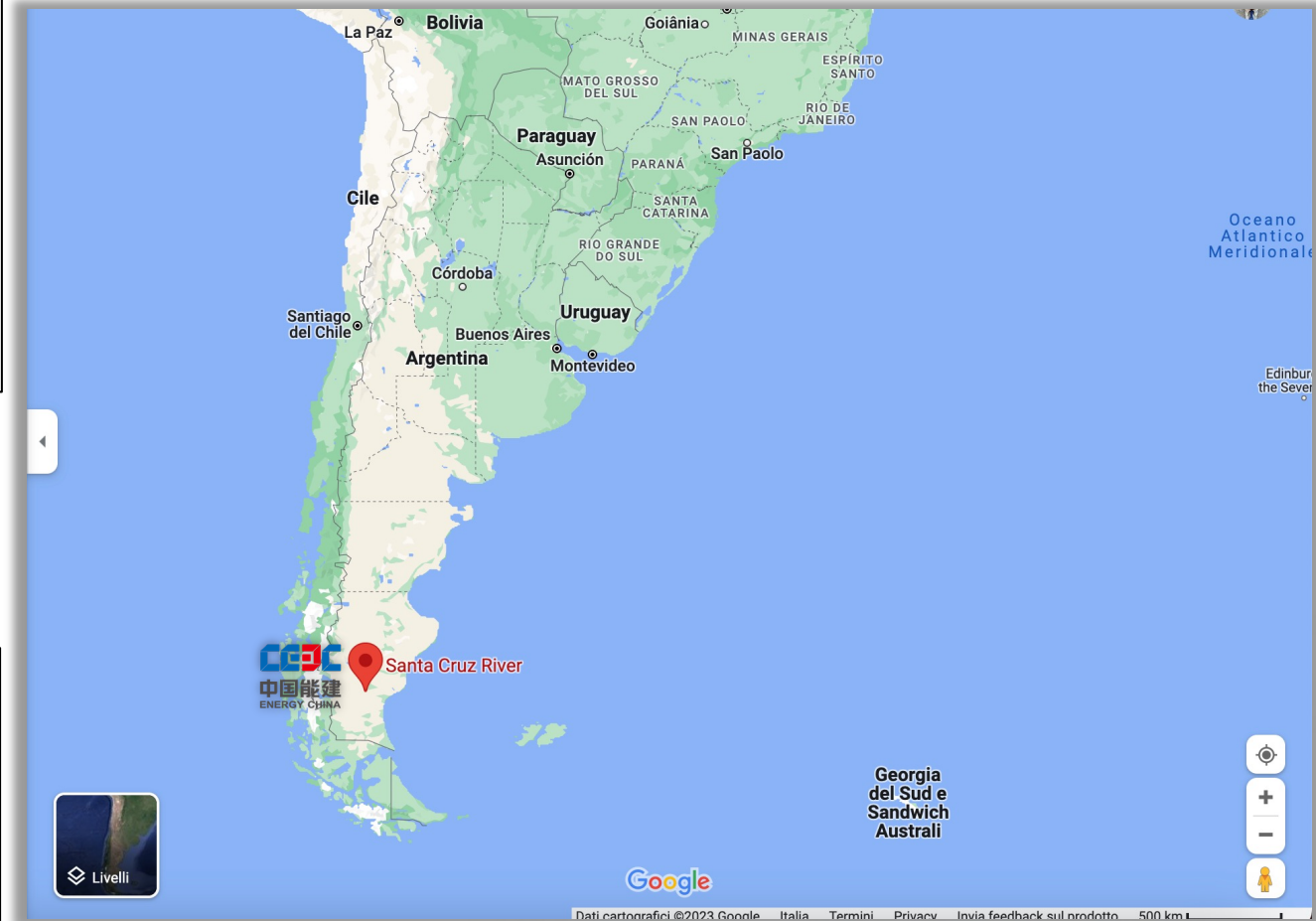


# Rio Santa Cruz

The Rio Santa Cruz is one of the most relevant glacial rivers in Argentina. It is almost 400 km long and springs from a glacial lake, **Argentino Lake**, a reservoir geographically defined as 'Patagonian' due to its location in the mountains of southern Patagonia.



With a catchment area of almost 30,000 km<sup>2</sup>, this river plays an essential function in conveying pure mountain water downstream, where it is used for purposes by many communities and urban centres.





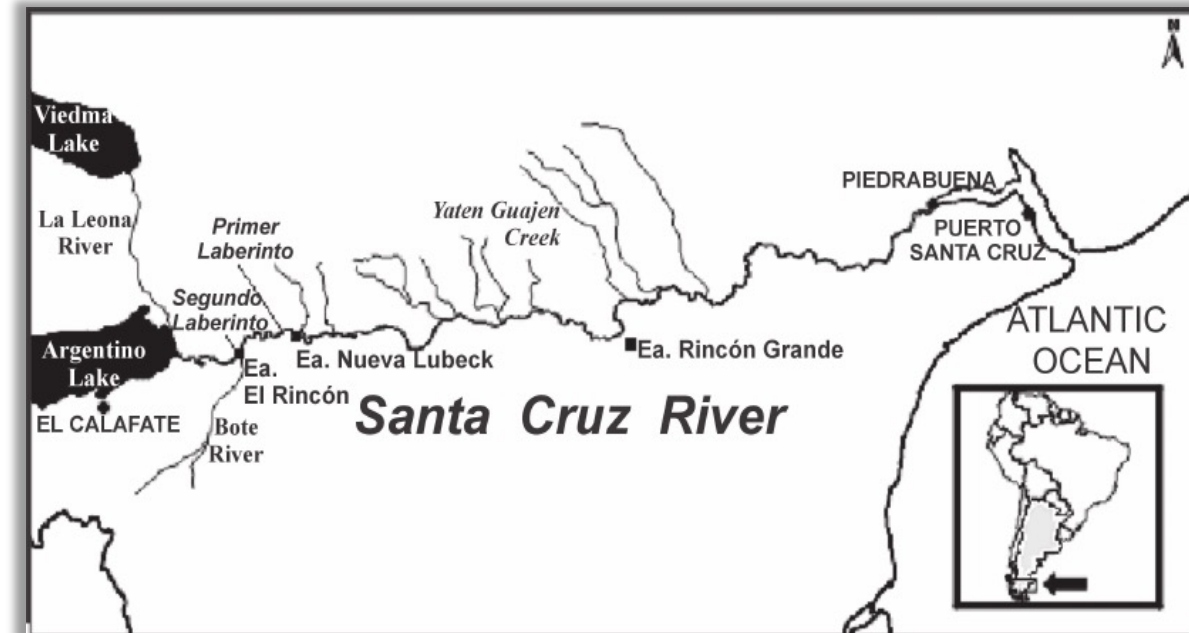


## Santa Cruz River Hydroelectric Project (SCRHP)

Plans for the construction of a massive hydroelectric complex on the Río Santa Cruz were initially conceived in the 1950s, but only a series of preliminary studies carried out in the 1980 laid the foundations for a more accurate analysis.



In 2007, then-president **Cristina Fernández de Kirchner** (in office from 2007 to 2015) relaunched plans to build two dams with the names **Kirchner** and **Cepernic**, as a tribute to former president Néstor Kirchner (and her late husband) and Jorge Cepernic, former governor of the province of Santa Cruz





## The Cóndor Cliff Dam and the La Barrancosa Dam



**Cóndor Cliff Dam, 70 m high, capable of generating 950 MW of hydroelectric energy**



**La Barrancosa Dam, 45 m high and an installed capacity of 360 MW**



## The SCRHP relevance for Argentinian energy production

Once completed, the SCRHP is expected to generate **15%** of the total hydroelectric production of Argentina and **5%** of the national electricity supply.





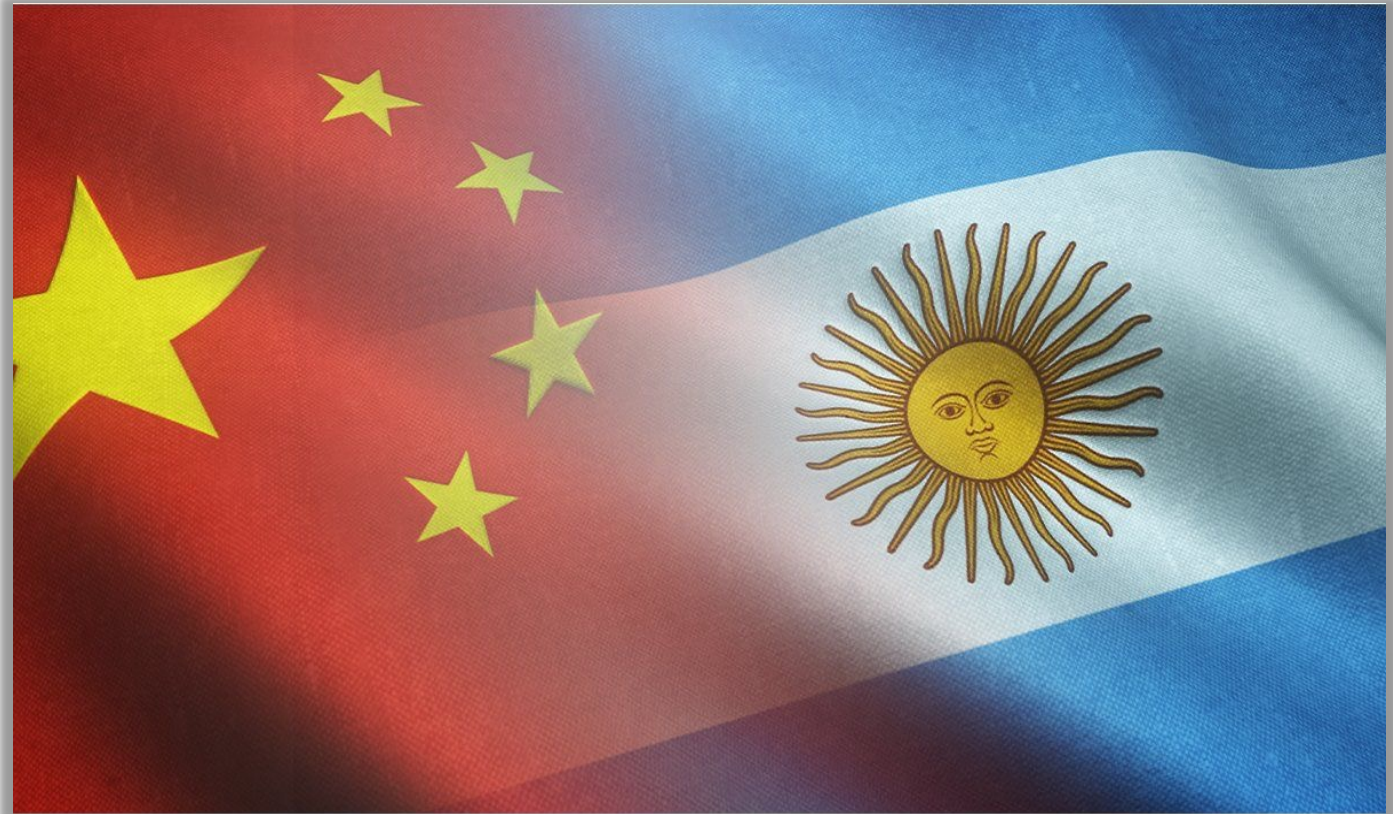
# Chinese involvement in the Santa Cruz River Hydroelectric Project

Chinese involvement in the Santa Cruz River hydroelectric project is massive

Financial investment

Construction

Workforce





## Chinese financial effort in the SCRHP

The vast hydraulic infrastructure has a total cost of approximately **USD 4.7 billion**

USD 2.498 billion would come from the China Development Bank (CDB)



USD 1,414 billion would come from the Industrial and Commercial Bank of China (ICBC)



USD 801 million would come from the Bank of China





## Chinese construction effort in the SCRHP

Besides the financial aspect, China will carry out the construction of the massive facility through the **China Energy Engineering Corporation (CEEC)**

Founded in September 2011, this large company is a relevant power engineering conglomerate with a brand that is well known in the energy sector both in **China** and on a **global level**.

It is supervised by the 'Commission for Supervision and Administration of Assets' owned by the Chinese State Council. This shows to a clear national strategic interest that Beijing has in companies operating in the **water sector**.





## Negative reactions to the SCRHP – Environmental issues

Due to the scale of the construction operation, the project has been **negatively received by local people** and many environmental activists, who argue that it will have a negative impact on the **culture, lifestyle and sacred lands** of as many as **14 indigenous communities** residing in the area.



Particularly, the *Comunidad Mapuche Tehuelche de Lof Fem Mapu* living in Puerto Santa Cruz, within the area of the project, fears that the water infrastructure will endanger their access to water resources





## Negative reactions to the SCRHP (2)

As highlighted in numerous studies, the SCRHP risks leading to the extinction of the Macá tobiano, an aquatic bird whose numbers have decreased by 80% in the last 25 years. In this regard, it is estimated that fewer than 800 individuals remain.







## Chinese attempt to reorganise international finance

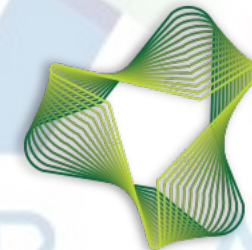
The involvement of three Chinese banks in the realisation of the SCRHP is an undoubtedly a strong signal of Beijing's commitment to supporting Argentina's hydro-strategic development plans.

The **Asian Infrastructure Investment Bank (AIIB)**, founded in 2014 whose main objective is to increase the Beijing's financial presence in Asia (but not only). Headquarters: **Beijing**



**ASIAN INFRASTRUCTURE  
INVESTMENT BANK**

The **New Development Bank (NDB)**, also founded in 2014 with the ambitious project to financially "detach" the economies of emerging countries from the IMF and the World Bank. Headquarters: **Shanghai**



**New  
Development  
Bank**



**THANK YOU FOR YOUR ATTENTION**

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