Protecting Peru's free-flowing rivers

#MarañónSinRepresas

9 REASONS NOT TO DAM THE MARAÑÓN CANYON

SPDA | Conservamos por Naturaleza

Marañón Waterkeeper

Almost 10 years ago, Odebrecht's Chadín 2 and Enel's Veracruz hydroelectric mega-dams on the Marañón River were approved for construction. **Today, with construction yet to begin, the projects are no longer commercially viable and remain at a standstill.** Local communities strongly oppose construction of these dams, and specialists warn that doing so would trigger an ecological catastrophe.

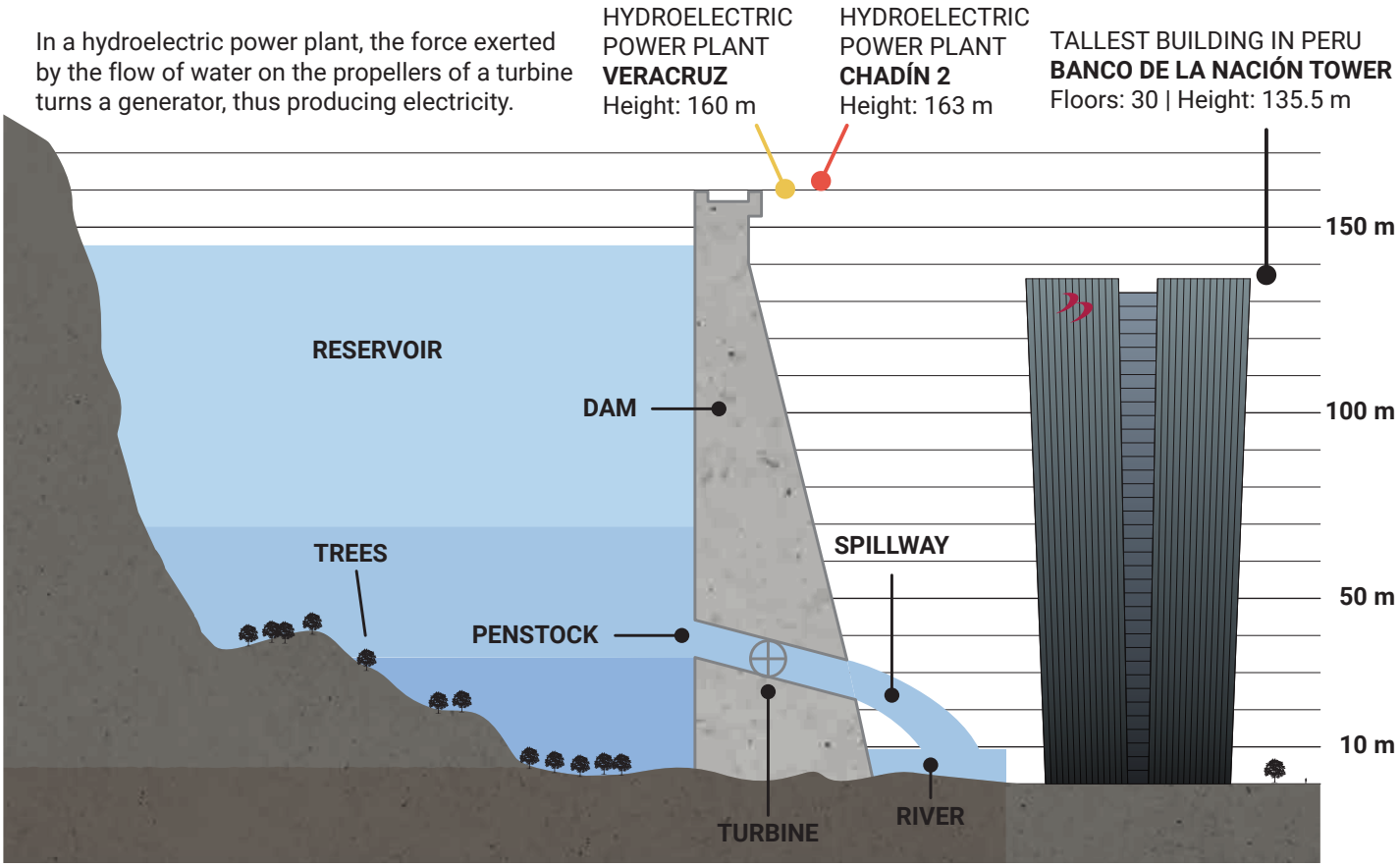
Both mega-dams should be generating electricity by 2022 and 2023, but neither project will be able to comply with this obligation. **Neither project has a valid environmental certification.** The Peruvian Government should terminate both contracts... but will it seize this opportunity to ensure a new, sustainable future for the Marañón River? Or will it continue to push for damming this vital freshwater artery, displacing thousands of people and jeopardizing the future of the entire Amazon basin?

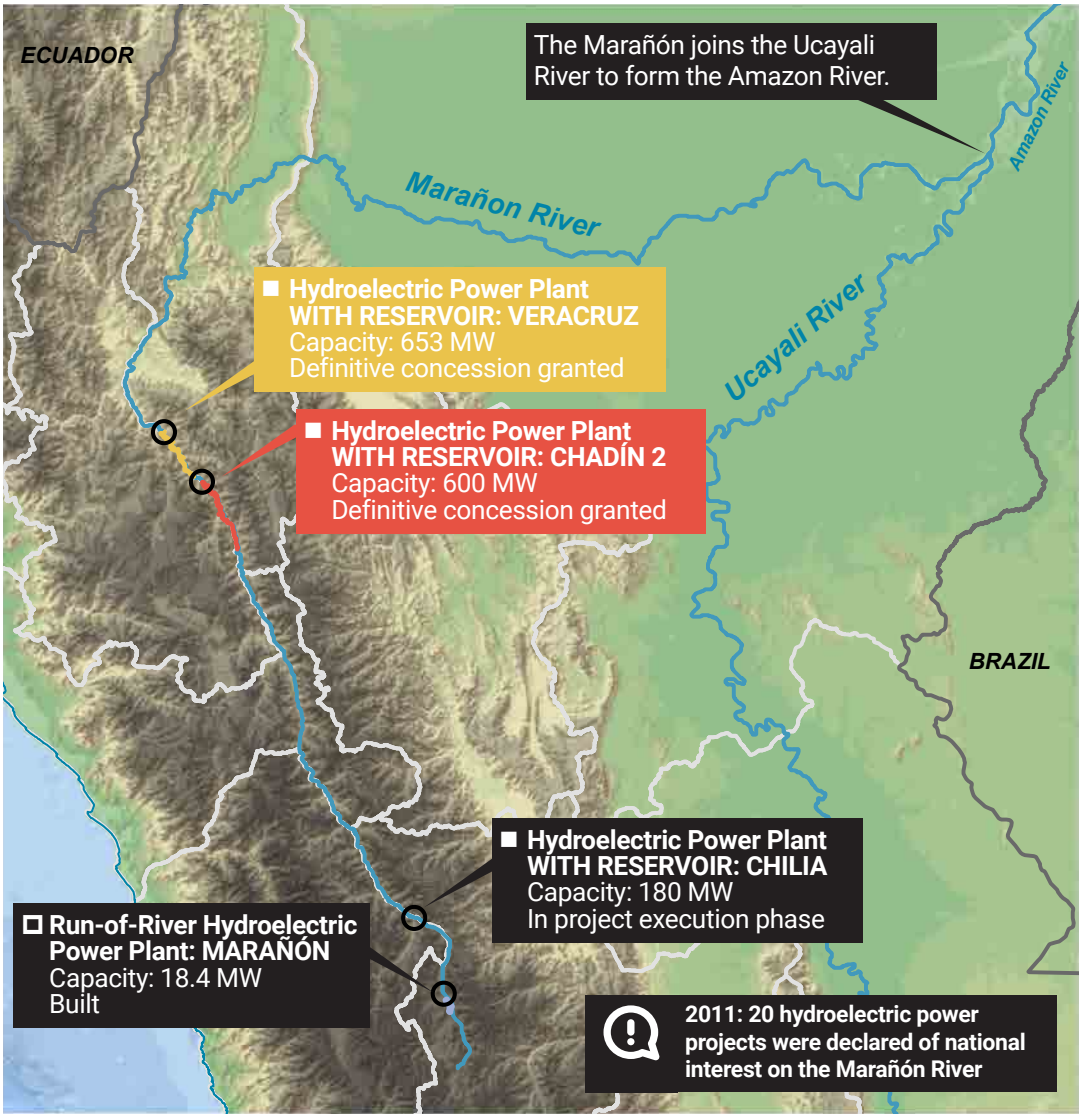
Concern about the threats faced by the Marañón is not limited to Peru. This year, the International Union for the Conservation of Nature (IUCN), which, with 1,400 members, unites governments and civil society organizations globally, released a Motion during the World Conservation Congress calling on the protection of Andes-Amazonian rivers of Peru from large-scale infrastructure projects.

¿Qué es una megarepresa?

A mega-dam is a structure built in a river, anywhere between 15 meters to over 100 meters high, with a minimum energy generation capacity 400 MW. In recent years, large hydroelectric power plants with reservoirs (mega-dams) have been met with increasing opposition due to their environmental and social impacts, including flooding villages, forests and agricultural fields, blocking the passage of sediments that fulfill key ecological processes, and increasing the emission of greenhouse gases. Nearly 5,000 dams have been removed in Europe and 1,200 in the United States.

(Fuente: Dam Removal, 2018; International Rivers, 2020; American Rivers, 2020)





□ **RUN-OF-RIVER HYDROELECTRIC POWER PLANT:** does not require a dam and reservoir and generates electricity using the force of the water re-channeled from the main trunk of the river.

■ **HYDROELECTRIC POWER PLANT WITH RESERVOIR:** also called impoundment facilities, these create a reservoir to store water and regulate the flow that passes through the turbine to generate electricity.

The negative impacts of the planned mega-dams

VERACRUZ Hydroelectric Power Plant

- ✕ **9** villages flooded
- ✕ **32.5 km²** of flooded forest, *the equivalent of* **4,552** *soccer fields*
- ✕ **224.8** hectares of agricultural land lost
- ✕ **10.33 million** tons of sediment retained per year

VERACRUZ Hydroelectric Power Plant

- ✕ **11** villages flooded
- ✕ **36 km²** of flooded forest, *the equivalent of* **5,042** *soccer fields*
- ✕ **74.37** hectares of agricultural land lost
- ✕ **10.14 million** tons of sediment retained per year

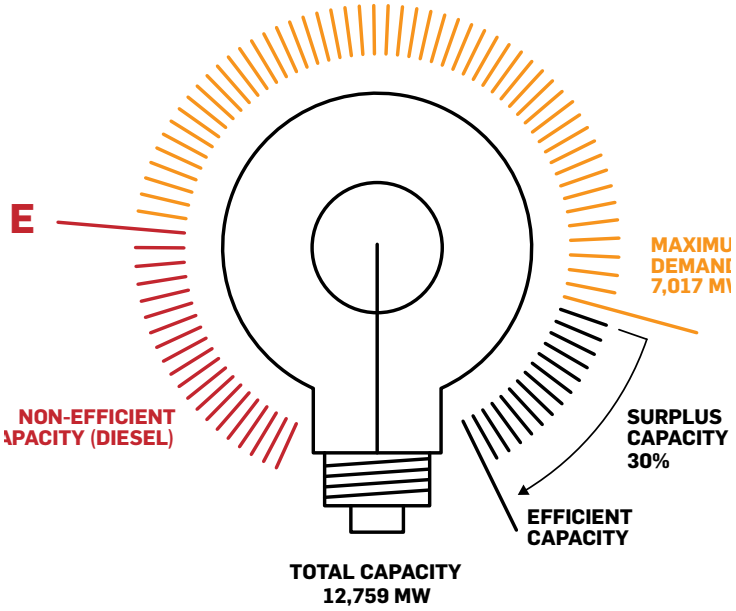
1 Displacement of communities

At least 1,700 people would have to leave their homes due to flooding by the reservoirs. In Amazonas and Cajamarca, **21 villages and settlements would be affected by the mega-dams**, involving the displacement of communities and the loss of some 320 hectares of agricultural land. Since 2011, the inhabitants of Mendán and Tupén Grande (Amazonas) and Chumuch and Yagén (Cajamarca) have opposed the Odebrecht-led project Chadín 2. A core grievance is the public consultation process: there is evidence that project proponents forged signatures and that effective public participation was actively prevented.

Documental "Confluir"

2 Electricity oversupply

Peru generates more electricity than it consumes, rendering void the argument that Peru requires these two mega-dams to meet energy demands. Now, the development of the Veracruz and Chadín 2 hydroelectric power plants is economically unfeasible. According to government information, the current oversupply of electricity ranges between 25% to 30%. Although the demand for electricity is expected to begin rising in the next few years, **there are already better technologies such as solar and wind energy that can meet this demand**, thus contributing to the country's development without generating the environmental damage linked to mega-dams.



3 A barrier for migratory fish

The construction of dams on the Marañón River could result in reduced populations of key fish species, and, in some cases, their complete disappearance. Fish are an important source of protein for communities that live along the river and are a key part of the river's complex food web. For example, the Awajún communities near the Pongo de Manseriche (Amazonas) consume approximately 500 grams of fish per person per day. The Marañón River is home to about 700 species of fish. **The dams would be barriers to fish that need to move freely between the Andes and the Amazon** for various important stages of their lives, such as spawning.


Diego Pérez

4 Lost tourism potential

By creating barriers in the river, destroying forests and cultural sites, the flooding of the Marañón canyon would put an end to the budding new tourism movement in the area. The canyon and its surroundings attract tourists for adventure, nature, and cultural tourism. **Especially adventure tourism, focused on white-water rafting and kayaking, has seen steady growth, increasing by around 18% annually over the past few years.** Local tourism has also grown exponentially with visits to the Amazonas Cave in the Red Canyon section of the Marañón. Meanwhile, ancient cave paintings and petroglyphs only recently discovered by archaeologists are adding further touristic value to the area.

Walter H. Wust

5 Dangerous diseases

Dam reservoirs contain large volumes of stagnant water, **which are the perfect conditions for the mosquitoes that transmit serious tropical diseases such as dengue, zika and malaria**. Meanwhile, large construction projects such as these attract an influx of migrant workers to the site, who usually come without their families. Studies show that this specific type of migration is accompanied by an increase in prostitution, human trafficking, and drug use. This leads to an increase in sexually transmitted diseases, such as HIV and syphilis.

Pixabay

6 Destruction of cave paintings

Both mega-dam projects **are located within the Great Archaeological Reserved Zone**, home to important archaeological remains from the first human inhabitants on this side of the continent. If built, the dams would flood cave paintings and archaeological sites that have yet to be studied and registered by the Ministry of Culture. Experts argue that the area should be designated an archaeological park for the protection and study of cave paintings.

Benjamin Webb

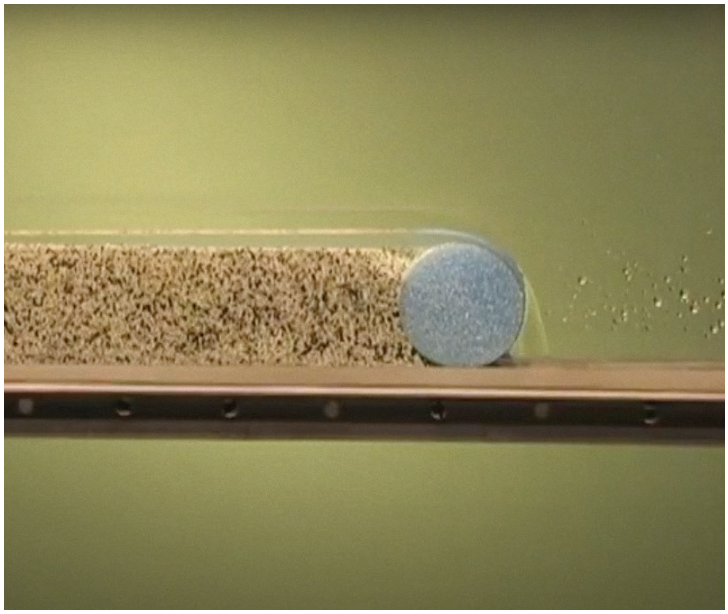
7 Dry Forests of the Marañón in danger

68 km² of Marañón dry forests would be flooded by the dams. This unique ecosystem is habitat of wild animals and plants unique to the area and is severely underrepresented in Peru's protected area system. These forests were included in the List of Fragile Ecosystems compiled by the National Forest and Wildlife Service (Serfor), which classifies them as spaces of high conservation value. The Veracruz and Chadín 2 dams would flood a large expanse of Marañón dry forests: Veracruz would flood 32.5 km² (the equivalent of 4,552 soccer fields) and Chadín 2 would flood 36 km² (the equivalent of 5,042 soccer fields).

Walter H. Wust

8 Loss of connectivity: Amazon Basin in danger

More than 10 million tons of sediments that flow from the Andes to the Amazon would be held back by the dams. Interrupting this natural flow would generate serious impacts on the ecosystems and populations living up to hundreds of kilometers further downstream. **Sediments carry nutrients that replenish the soils of the riverbanks and the emblematic oxbow lakes of the Amazon, ensuring their productivity**. The construction of the mega-dams would obstruct the course of these sediments, which would prevent them from reaching the shores and other ecosystems downstream. Worryingly, the water downstream from the dams would have a lower sediment load, which would increase erosion of riverbanks, beaches, and agricultural soils.



Little River Research & Design

9 Greenhouse gas emissions

Mega-dams in tropical areas, such as the Andean Amazon, do not generate clean energy.
The Veracruz and Chadín 2 projects involve creating two large reservoirs of stagnant water, where organic matter decomposes. These processes release carbon dioxide and methane, two of the most important greenhouse gases that drive climate change. Indeed, **the construction of the dams would be contrary to Peru's international commitments to combat the climate crisis**.

Walter H. Wust

On whom does the future of Marañón depend?

The final decision on what will happen with the Chadín 2 and Veracruz projects depends on the **Ministry of Energy and Mining (Minem)**. Neither of the two projects has the necessary permits to start construction, and neither will be able to generate electricity within the established deadlines. Therefore, their contracts will have to be terminated.

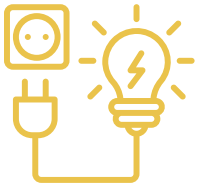
CHADÍN 2
Odebrecht

Should generate electricity as of **July 12, 2023.**

Minem could terminate the concession contract, because the works execution schedule has already expired.

In 2018, Odebrecht attempted to justify not having begun works due to a force majeure event, but this was not recognized by the government.

VERACRUZ
Enel



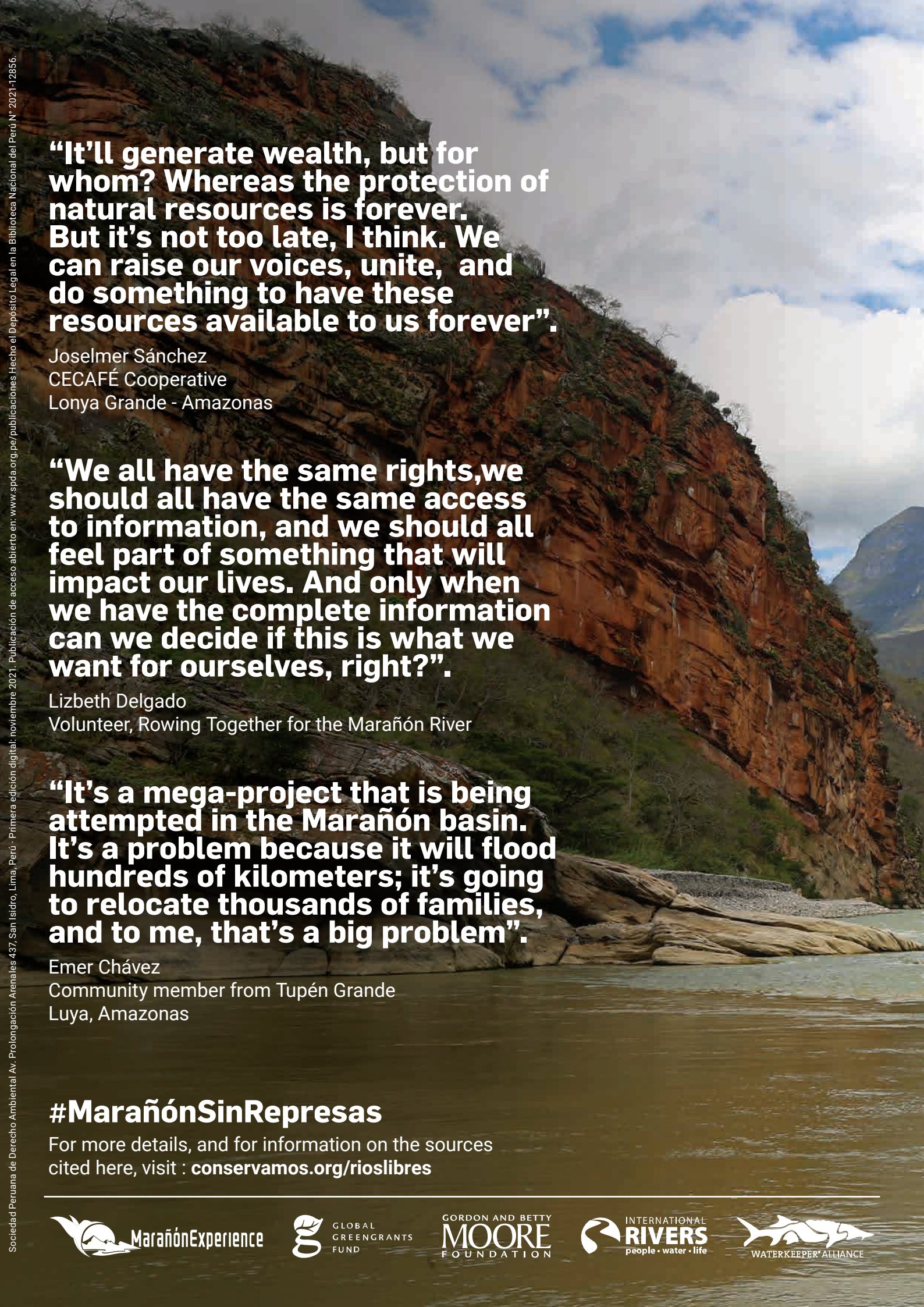
Should generate electricity as of **January 9, 2022.**

In 2020, Enel formally communicated i**ts intention not to continue with the project** because it was not commercially viable and did not align with its new policies.

In 2018, Enel requested the recognition of a force majeure event to justify not initiating works, but this request remains unanswered by the government until now. Notably, the request argues that the finding of cave paintings was the event of force majeure, which is questionable given that the project is located within the Great Archaeological Reserved Zone.

In both cases, the Peruvian government should review the concession contracts, because the companies are unable to comply with their obligations to generate electricity within the established deadlines. Furthermore, **the economic reasons that led to the granting of these concessions no longer exist, given that Peru now generates significantly more electricity than it uses**. Nothing, however, prevents new mega-dam concessions from being granted for other projects on the Marañón. **It is therefore urgent that the government improves the environmental and social standards for future projects to be implemented in Amazonian rivers**, and to raise the level of protection for the biodiversity and cultural heritage of the Marañón canyon.

Find more information and proposals at **conservamos.org/rioslibres**



“It’ll generate wealth, but for whom? Whereas the protection of natural resources is forever. But it’s not too late, I think. We can raise our voices, unite, and do something to have these resources available to us forever”.

Joselmer Sánchez
CECAFÉ Cooperative
Lonya Grande - Amazonas

“We all have the same rights,we should all have the same access to information, and we should all feel part of something that will impact our lives. And only when we have the complete information can we decide if this is what we want for ourselves, right?”.

Lizbeth Delgado
Volunteer, Rowing Together for the Marañón River

“It’s a mega-project that is being attempted in the Marañón basin. It’s a problem because it will flood hundreds of kilometers; it’s going to relocate thousands of families, and to me, that’s a big problem”.

Emer Chávez
Community member from Tupén Grande
Luya, Amazonas

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For more details, and for information on the sources cited here, visit : **conservamos.org/rioslibres**

MarañónExperience · Global Greengrants Fund · Gordon and Betty Moore Foundation · International Rivers (people • water • life) · Waterkeeper Alliance

Sociedad Peruana de Derecho Ambiental Av. Prolongación Arenales 437, San Isidro, Lima, Perú · Primera edición digital: noviembre 2021. Publicación de acceso abierto en: www.spda.org.pe/publicaciones Hecho el Depósito Legal en la Biblioteca Nacional del Perú N° 2021-12856.