

The Congo River, Africa's second largest river after the Nile, that crashes and cascades through rainforests and savannahs and culminates in the Democratic Republic of Congo (DRC), is set to become the site of the world's largest hydroelectric dam project: Grand Inga. The ostensible goal of this enormous project is to bring electricity to the 500 million people in Africa who are currently living without it. But as tensions build over this project between activists concerned about the dam's social and environmental consequences and a government lacking in transparency, the question arises: is Grand Inga really the answer to Africa's electricity problem?

Grand Inga is a planned series of eight dams on the Congo River that will cost around \$80 billion. The dams would produce 40,000 MW, twice as much power as the current largest dam project, the Three Gorges Dam in China. Just one megawatt could fuel hundreds of homes. Currently, Africa produces only around 20% of the electricity that the U.S. produces, and around half a billion Africans do not have access to electricity.

Grand Inga is scheduled to be constructed in seven phases, of which phase one, named Inga 3, is currently underway. The other six phases will depend on the availability of funds moving forward. Grand Inga will add on to the already existing Inga 1 and 2 dams which were constructed in 1972 and 1982 respectively.

However, Grand Inga has generated pushback from grassroots activists because of its environmental and social impacts, a lack of transparency from the government, and uncertainty over where the electricity will actually be sent.

Among these activist groups is International Rivers. A global movement founded in 1982 that aims to protect and preserve rivers, the organization is most concerned with the dam's impact on the Congo River.

"Our vision is of a world where healthy rivers and the rights of communities are valued and protected, and a world where water and energy needs are met without degrading nature or increasing poverty," explained Siziwe Mota, Africa Program Director of International Rivers.

Other activist groups opposed to the dam include MWANGAZA network, a grassroots organization that promotes energy access in the DRC and demands transparency from the government on energy issues and infrastructure projects; ANSER, a national movement attempting to electrify rural areas in the DRC; and The Coalition des Organisation de la Société Civile pour le Suivi des Réformes et de l'Action Publique (CORAP), an advocacy group campaigning against the creation of Grand Inga.

Both MWANGAZA Network and ANSER worry that Grand Inga will not provide the electricity to the general population as promised. Estimates put only about one-third of the electricity

produced going to the people of the DRC, while the rest will be funneled into the mining industry or out of the country.

“The fact is that this project did not plan to give electricity to the Congolese populations, because the main strategy is to produce and export the energy,” said Erik Kasongo, spokesperson of MWANGZA Network.

International Rivers is also concerned about how Inga 3 will affect local communities.

“The Inga 3 project does not respect the rights of the affected communities, will not help the country alleviate poverty due to its cost structure, and will not provide energy for the majority,” their spokesperson said.

On top of the uncertain accessibility to electricity there is also the question of both the social and environmental consequences caused by the construction of Grand Inga.

Already, Inga I and II have had consequences for the region and the local communities. Across the world, displacement due to dam development accounts for 40% of all displaced globally, or around 80 million people. In the DRC, more than 9,000 people were physically displaced by the construction of these two dams, and forced into camps like Camp Kinshasa where they still reside today.

Camps like Camp Kinshasa were meant to be temporary workers’ camps, but have now housed families and indigenous people for almost forty years. However, with work being renewed on the dams, these families might be displaced yet again by workers coming back to the camps.

One villager from Lubuaku Village, who will be displaced by Inga 3, expressed his anger saying, “Inga 1 and 2 took our lands and we received nothing, and now we are being told that we will have to leave our ancestral lands completely, and forever. What will happen to us? Where will we go?”

While they were promised compensation in 1958, these displaced people have yet to see any of that promised money. Kasongo emphasized that his work with these displaced people has been hampered by the fact that the government has yet to provide compensation and is not forthcoming with information on what the plans are with this population.

“There have been no consultations, and no compensation,” said Kasongo. “Everything is unclear.”

Inga 3 and Grand Inga will displace even more people, yet there have been no official social impact plans done on the construction process and no public plan for what will happen when people are displaced. As currently proposed, Inga 3 will divert water into Bundi Valley which will affect thousands. One estimate by the Development and Promotion of the Grand Inga Project puts the displacement that Inga 3 will cause at 37,000 people.

Though Kasongo sees displacement as the dam's biggest threat, displacement is not the only social problem Inga 3 will cause.

The diverted water into Bundi Valley will flood the land, resulting in the loss of livelihoods and causing economic displacement. The Bundi Valley is rich in biodiversity and land, and it sustains surrounding communities through agriculture, fishing, and hunting. The land is also home to places of cultural significance, such as cemeteries, sacred sites, and areas of ancestral rites practices. A substantial portion of this land will be flooded by Inga 3, causing economic and cultural loss for the surrounding communities.

In addition to the cultural losses that will result from flooding the land, Inga 3 may also have broader environmental consequences.

The Congo River dumps large amounts of water, sediment, and nutrients into the Atlantic Ocean. This creates the "Congo Plume"-- a naturally occurring carbon sink created by the nutrient fed phytoplankton that "fix" carbon dioxide and take it out of the atmosphere. The carbon sink created by the Congo River is one of the largest in the world, but the implementation of new dams in the Congo River could break down this naturally occurring process, disrupting the carbon dioxide fixation and releasing more carbon dioxide into the atmosphere. As carbon dioxide is a greenhouse gas, this could affect the impact of climate change in the area.

In the face of these potential consequences, activist groups have attempted to raise awareness about the effects of Grand Inga. CORAP wrote an open letter to President Tshisekedi which called into question the transparency of the Grand Inga construction process, the environmental and social consequences, and the controversial estimation about how much electricity from the dam will actually go to the people of the DRC .

"This has raised the question," the letter reads, "why is the contract for the world's largest hydropower site being negotiated behind closed doors and who is it benefiting?"

CORAP goes on to condemn the fact that civil society has been left out of the construction process of the dam, an action that violates the safeguards policy of the African Development Bank and other provisions of Congolese law, and criticizes the lack of environmental and social impact plans.

The letter ends with a plea for the President to shut down the construction of the dam:

“CORAP’s member organizations are hereby asking you to stop development of the Inga 3 project, because it poses tremendous risks, namely: To the communities via the displacement of more than 37,000 households and the loss of assets and cultural values; To the country's economy through debt and corruption; To the environment by altering the riverbed, causing the disappearance of some species; To the climate, by producing CO2 through the breakdown of vegetation flooded by the dams, as well as the stagnation of water in the reservoirs.”

Forty one organizations added their signature and support to this letter.

The Inga Dam could provide a substantial amount of renewable energy, but the costs — both financial and environmental — lead some individuals and organizations to advocate for other forms of renewable energy. International Rivers recommends wind or solar energy. The group’s report, “Renewable Riches: How Wind and Solar Could Power DRC and South Africa” finds that the wind and solar potential in the DRC could be cost-competitive with the energy potential of Inga 3. Wind would be equal to the cost of Grand Inga at eight cents per KW, while solar power is estimated to cost seven cents per KW, a cent less than Grand Inga.

Some organizations even propose using hydropower but with multiple smaller dams.

Kasongo, of the Mwangaza Network, says that, “According to the renewable energy atlas released in 2014 by the DRC government, the country has a huge potential on hydropower with more than 700 sites around the whole territory [outside of Inga 3].” These sites could potentially produce as much power as Grand Inga, but could be less environmentally destructive.

Ultimately, Mwangaza Network and International Rivers find that the power from Inga 3 could be produced, at a similar, if not less expensive, cost-potential per kilowatt hour, by other forms of renewable energy. The aforementioned study by International Rivers concludes that “In the cases without Inga 3, all Inga 3 capacity is replaced by a combination of wind, solar PV, and natural gas.” This would address many of the concerns of activist groups, while simultaneously helping to bring power to those in need of it.