

Unsustainable transition? Hydropower and the post-Covid recovery in Georgia

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oDR: Opinion

Continued hydropower development in Georgia raises questions about sustainable infrastructure and those who support it.



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Lajanuri HPP reservoir
|
Source: Andrew Barry

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The Covid-19 crisis has provided further evidence of the dramatic consequences of the destruction of large ecosystems caused by rapid development in large parts of the globe. As the growing list of countries affected by the pandemic are struggling to mitigate its deep social and economic impact, investment in large infrastructure has been hailed by some as the basis for a “green new deal” able to foster a sustainable recovery.

Indeed, ahead of the crisis, the construction of hydropower plants had already been supported, by large international banks and governments alike, as one of a number of ways of fostering a transition to a sustainable and a green economy. As investments in renewable energy have been rising, global hydropower installed capacity reached 1,308 gigawatts in 2019.

Amongst the countries that have followed this green development pathway, Georgia has sought to make the most of its mountainous territory by planning no less than one hundred projects across its waterways. However, a close look at some of these large

hydro projects highlights their unsustainability, raising questions about the broader idea of a transition to a green economy that provides their justification.

Namakhvani HPP

On 22 July this year, crowds of protesters gathered in Kutaisi, Georgia to voice their opposition to the construction of two large hydropower complexes: the Oni Cascade and Namakhvani HPPs in the mountainous region of Racha-Lechkhumi in central Georgia.

The Namakhvani HPP is composed of two interconnected dams and it is currently the largest hydropower project in the country, with a projected total capacity of 400 megawatts at a cost of US\$750m. The authorisation to build this HPP came, somewhat abruptly, at the beginning of the year, almost a decade since the project was first announced in 2010.

The preliminary works for this mega infrastructure started at the beginning of June in the municipality of T'sageri. As the workers from Turkish company Enka Renewables, the majority investor behind the infrastructure, alongside Norwegian company Clean Energy, started laying down a small bridge on the Rioni river, a group of villagers gathered in the proximity of the building site to host a wine festival and rally celebrating their traditions and to discuss the dam under construction. One of the attendees, having taken up the mic, raised a question: “why such hurry? *Whose time* is this project running on?”

Despite the long gestation and multiple interruptions of this mega project, this simple question captures the issue at the core of the opposition to this transition infrastructure - namely, the lack of engagement of the project with the territory it is intended to transform. In recent years, the different stages of the project's approval – scoping, environmental impact assessment (EIA) and consultations – have been rushed through, often unlawfully according to local critics. At the same time, estimates of the damages that might incur from the construction have been minimised.



Lajanuri HPP reservoir | Source: Andrew Barry

Indeed, according to Georgian environmentalists, the EIA submitted by the company Enka Renewables was approved by the Georgian government despite lacking a range of compulsory surveys. Although the population of the valley is small, opposition to the project has progressively grown bringing together local communities, environmental activists, scholars and NGOs from within and outside Georgia.

At the wake of the project's inception, the environmental NGO Green Alternative has demanded a revocation of its permit. In the aftermath of the rallies, the "Public Movement to Save the Rioni Valley" released a list of demands addressed to Georgian president Salome Zurbishvili, requesting the interruption of the works, a revocation of the development permit and an inquiry into the damages caused by the partial collapse of another dam, the Shuakevi HPP, which has been developed by Clean Energy, also involved in Namakhvani. If the construction goes ahead as planned, the consequences of this accelerated process might be disastrous and stretch much beyond the valley where the plants are set to rise.

Seismic hazards

As research from the Institute of Earth Science in Tbilisi has shown, the Main Caucasus Thrust belt is the most active tectonic unit of the region, generating the highest magnitude earthquake recorded in the Caucasus in 1991, which triggered major landslides and buried two villages.

The high humidity, steep topography and complex geological settings of the Racha-Lechkhumi region, which includes the Rioni valley where the HPPs are planned makes it extremely vulnerable to landslide processes, while high precipitation in the area makes steep mountain slopes unstable. For example, in 1987 a landslide blocked the Rioni River for 15 minutes by temporarily forming a dam near Mekvena, a village that will be partially flooded by the proposed Namakhvani reservoir. As Tea Godoladze, the director of Georgia's Institute of Earth Sciences has argued, flooding the valley may also induce further and much larger landslides than have hitherto occurred due to the pressure generated as the valley's walls become progressively saturated.

The hazards highlighted by Godoladze were not seriously considered by the EIA approved by the Georgian Minister of the Environment. Geologists have repeatedly called for a rigorous geophysical and geology survey of the valley to be undertaken, and to ensure an effective system of geophysical monitoring is put in place. The construction of the dams, however, has already begun, leaving these vital assessments unattended.

Impact on local economies

While the development of the project is accelerated, the time of local communities, however, seems to matter less.

For an entire decade, the as yet unrealised plan to flood part of the Rioni valley has stalled the refurbishment and upkeep of existing infrastructure connecting it to the rest of the country, resulting in the progressive isolation of the valley and its inhabitants. Despite its infrastructural and socio-economic decay, the valley has remained the site for the production of several endemic high value crops, the most important of which is the Tvishi wine. The wine, named after one of the villages where it is produced, is a semi-sweet white wine very popular both in Georgia and on the international market, especially in Russia. It owes its sweetness to the local terroir, characterised by high humidity levels. In recent years, and in parallel with the planning of the dam, several winemakers have established organic vineyards in the valley, benefitting from state subsidies.



Tvishi vineyards | Source: Andrew Barry

Wine, moreover, is not the only high value endemic crop found in the area. The slopes of the Khvamli massive that towers over the valley are home to a variety of herbs that locals collect to make teas, ointments and condiments. The women and men who collect and transform herbs and the winemakers, are currently at the forefront of the protests against the construction of the dam, as they argue the changes in the territory caused by the reservoirs will permanently affect humidity levels, spoiling the local terroir and destroying its endemic flora and fauna. This rich local expertise has, up to this day, been overwhelmingly sidelined in accounts of the dam project coming from the company and the state.

Rushing through transition

Rather than rush the development of major infrastructure projects such as this, the Georgian government should learn from the spectacular failures of some recent hydropower developments.

Two of the large HPPs recently built in the country, the already mentioned Shuakevi HPP in Adjara and the smaller Dariali HPP, have partially collapsed, creating extensive damage to local ecosystems and, in the case of Dariali gorge, killing nine people. While these collapses were not foreseen by the companies leading their development -

amongst whom is Clean Energy, one of the enterprises currently involved in the Namakhvani project, local communities, scholars and NGOs had been warning against the hazards for years prior to the developments' completion.

At the time, however, these complaints had fallen on deaf ears, including those of the large international investors backing the projects. The European Bank for Reconstruction and Development, who has placed the “transition to a green economy” as a top priority for its developmental vision, backed the development of both failed projects and until recently had been considering committing to support the Namakhvani HPP.

In late 2019, the EBRD, after a formal letter from the Green Alternative NGO, decided against supporting the project, reportedly due to its negative assessment of the dams' impact on the endangered fauna of the Rioni river. The river was listed amongst the potential sites to be included in the “Emerald Network”, protected by the Bern Convention, however, its candidacy has been subsequently withdrawn by the government in order to allow its use for hydropower production. Despite not being involved in this particular project, the EBRD has played a key role in promoting the idea of transition on the basis of which investments in hydropower have been justified, in Georgia as elsewhere in Eastern Europe and the former Soviet Union.

Formed in the aftermath of the Soviet collapse, the EBRD's core mission has been to foster the transition to market economy in the space left behind by the Socialist bloc. Most recently, however, this original calling has been integrated by a new transition concept which defines ‘a well-functioning market economy as more than just competitive; it should be inclusive, well-governed, green, resilient and integrated as well’. Under this banner the bank has financed in the past five years over 60 hydropower projects in south eastern Europe and the Caucasus. As Bankwatch reports, many have provoked serious damage to the fragile ecosystems that have hosted them.

For the past three decades, Georgia's socio-economic development has been contained within this mutating framework of transition. The imperative of transition, and the market-driven deregulation at its core, has, in some ways, replaced the drafting of a concrete development strategy for the country. In the case of the energy sector, the OECD reported that, despite contracting consulting firm McKinsey & Company to aid with the production of an energy development strategy in 2018, Georgia has nevertheless to this day failed to adopt a comprehensive framework.

The development of the Namakhvani HPP has been described by Georgian economy minister Natia Turnava as necessary to the country's energy security, however as the UNECE notes in their recent report, in the absence of a national energy strategy and supporting policies it is difficult to assess energy projects' compatibility with national supply and demand trends as well as energy security concerns and long-term

environmental objectives. In the rush to complete the long-awaited transition(s), therefore, Georgia seems to discount the very practices that will enable its populations to reap the benefits of its many infrastructural investments.

The global spread of the coronavirus should be a lesson about the irreversible consequences of the exploitation of the ecosystems in which we live. Discounting the impact that infrastructural projects have on their environments in order to achieve economic development is a false economy, the consequences of which are often only recognised subsequently. If it happens, the construction of the Namakhvani HPPs will give rise to a series of inter-related socio-economic, ecological and geophysical changes that together may have destructive and unpredictable consequences locally.

There can be no good transition without a deep engagement with all of the elements of this complex puzzle. For this reason, as scholars committed to support the creation of a more sustainable world, we join those who call for the immediate interruption of the construction of the Namakhvani HPP and Oni Cascade.