Statement on the natural disaster in the Dariali gorge, 17 May 2014

GREEN Alternative

Striving for environmental and social justice in Georgia

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The landslide in the Dariali gorge of the Kazbegi municipality has killed several people and left others missing. The disaster also damaged a section of the road formerly known as the Georgian Military Road. According to the state security and crisis management council, several people have been trapped in the Dariali hydropower plant's derivation tunnel, where construction works were underway when the landslide hit.

First and foremost, we offer our condolences to the family of the victims and express hope that the missing people will be rescued safely soon.

Unfortunately in recent days, media outlets have been disseminating inaccurate statements by government members that suggest environmental groups link the landslide from the Devdoraki glacier with the construction of hydropower plants in the Dariali gorge. By such statements these officials are attempting to cover a number of irresponsible and possibly corrupt decisions made during the approval and implementation of these very same projects. Our organisation has repeatedly pointed to the problems caused by these types of projects, because of the incomplete environmental impact assessment and the illegally-issued permits.

Green Alternative had indicated multiple times that many environmental issues were neglected during the process of issuing hydropower construction permits and ecological expertise conclusions at Dariali and Larsi. In addition to the effects of these projects on biodiversity, nature and society, the project developers did not consider the threat posed by seismic activity on the dams and people employed there.

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Larsi headwork and the Dariali derivation channel portal are located at the convergence of the Devdoraki and Tergi rivers. The Devdoraki river begins at the Devdoraki glacier, which is known in the Caucasus as a glacier with lower hypsometrical position. It belongs to a category of hanging glaciers, meaning that it is impulsive and ice calving can cause disasters. One such disaster took place in 1832, when ice and debris moving at high speeds from the Devdoraki glacier blocked the Tergi river for three days; when the river broke through the blockage, it flooded Vladikavkaz (Russia) located downstream. The glacier ice then took seven years to melt. During this period a bypass road was built for carts, which can still be seen on the rock today, at the level of the 17 May avalanche. Moreover, in 2007 another landslide at Devdoraki killed one person.

It should be noted that the representatives of the hydropower construction company[1] and the Ministry of Environment have begun only now speaking

[1] http://goo.gl/PaliPu,Kviris Palitra, interview with construction manager Sulkhan Gabrichidze

about the danger related to the Devdoraki gorge; these issues were not discussed as part of the permitting or court cases, or when Green Alternative demanded the cancellation of this permit.

Lasha Iordanishvili, the head of the hydropower construction company, said that they (The company) had assessed all the risks when designing[2] the project. However the environmental impact assessment report, prepared by the consultant companies "Gama" and "Stucky Caucasus" was approved and the project launched without properly studying the hydrological regime of the Tergi river and its tributaries. The EIA for the Dariali project mentions only in passing that the "Tergi River has three main tributaries (Chkheri, Devdoraki and Khdistskali rivers) in the designed HPP construction area; these are glacial rivers, with large fall of stream, significant sedimentation drift (mainly rocks) and mudflow currents during heavy rain and snowmelt periods." Mudflow processes are expected to become active in the gorges of Devdoraki-Amali, Kistinka, Kuro, Kabarjina, Bidara and Truso. Hydrological peculiarities in the section selected for hydropower construction increase the risks of dangerous geodynamic processes and natural disasters, such as rockslides, avalanches, erosions, snowslides, mudslides, freshets, the washing away riverbanks, damage to roads and bridges and so on. Data about the average annual flow of the Tergi river were based on the results of observations conducted between 1928-1940 and 1953-1986, as no data for the past 25 years are available. Moreover, the calculations for the suspended solid flow of the Tergi river (solid and bottom sediments) were based on the 1928-1940 data, and no data about the Tegri's, nor the average annual flows and the suspended solid flows, have been studied. The issue of changing water and solid flows caused by the accelerated melting of glaciers was not taken into consideration while developing the project[3]. The EIA report did not cast any doubts about site selection either, noting also that "dangerous geo-hazardous processes development risk is minimal during HPP operation phase."

Supporters of the projects planned in the Dariali Gorge, including experts from the Ministry of Environment, did not share our concerns. For example, Omar Kutsnashvili wrote that "we should only welcome the fact that (Dariali, Larsi and Kazbegi hydropower plants) have been designed according to modern construction technologies and standards. The projects take into consideration local natural and tectogenetic conditions. The environmental impact of constructing and operating these hydropower plants has been assessed adequately and impartially."[4]

In its conclusions on the Dariali project, the 'Division on Responding to Geo-Ecological Complications' of the Department of Geological Hazards stated simply: "There are no remarks." As for the three-sentence conclusion from the Chairman of the Expert Commission, Teimuraz Tbelishvili, the statement focuses only on inaccuracies in the names of the rivers. He also rightly points out that that the potential for mudslides at Khdistskali and Kurostskali have not been properly reflected in the EIA document. This alone would, in normal circumstances, be enough for a law-abiding country not to issue a positive ecological conclusion on similar projects. Yet the investor was merely instructed to submit a plan on responding to emergency situations, and also made responsible for periodic instructions and training of personnel on safety issues. The investor should have developed plans on readiness for emergency situations, which should have covered the threats related to large-scale emergency situations and the protection of local populations. Moreover, the company should have prepared a plan for evacuation, personnel protection and communication; responding to emergency situations should have been defined in by the relevant instructions. At this stage we have no information about whether these conditions in the permit have been fulfilled.

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[2] http://info9.ge/?l=G&m=1000&id=10926

[3] http://www.greenalt.org/webmill/data/file/Dariali_HPP_Fact_Sheet_July_2012_ENG.pdf

[4] Quotation from the conclusion on Kazbegi HPP EIA report.

Unfortunately, it is possible that disasters reoccur at Devdoraki. This is not the only river that poses a threat of mudslides as the project is implemented. Similar threats are expected on the Kuro and Chkheri Rivers as well, as the Dariali dam, tank and headwork are expected just at the conversion of these rivers. The Kuro river intensively saturates avalanche material with water, turning it into a mudslide before carrying it into the Tergi. The flow of materials created by the Kuro destroys everything in its path; a onetime deposit contains hundreds of cubic meters, which has already blocked the Tergi river multiple times. The flow of materials from the Kuro occurs several times per year.

If the project is implemented in its current form, the following can occur: sedimentation from the multiple tributaries of the Tergi will accumulate at the mouth of the Kuro and Chkheri rivers, causing the Tergi riverbed to rise. The Tergi will then not be able to transport materials brought by the Kuro river, causing the sediment to accumulate and fill the already-narrow Kuro valley, posing a threat to the settlement of Stepantsminda located upstream. Like the right tributary of the Tergi, similar processes will be observed with respect to the Chkheri river, which joins Tergi from the left side.

In this light, the tragic developments in May clearly demonstrate how an incomplete environmental impact assessment and the government's irresponsible decision-making can lead to deplorable consequences. Projects that neglect environmental conditions solely to generate maximum economic benefits will not only cause damage to the natural and social environment but can also lead to serious economic harm. Another clear example of reckless projects is Amali HPP on the Devdoraki river included by the Ministry of Energy into the list of potential hydro power plants – on the river, that has recently caused such tragedy as a project attractive for investments[5].

[5] http://www.energy.gov.ge/investor.php?id_pages=19&lang=geo