

## Submersion of the Kosinj valley in Croatia due to the construction of a hydro-power plant

Up to two thirds of electricity in Croatia is produced from hydropower plants. The share of production from this source varies depending on weather conditions, ie precipitation, so in rainy years production increases, while in drier years it decreases, and these large percentages indicate that the hydropower potential in the Republic of Croatia is largely used.

The media recently announced the start of work on the Senj 2 Hydroelectric Power Plant and the Kosinj Hydropower System, the largest energy project in the country worth 3.4 billion kuna. While otherwise such news would cause at least minimal journalistic analysis, in the midst of a coronavirus epidemic, this one went relatively unnoticed. However, apart from the fan intonation of the article in one daily newspaper, which gives the impression that the residents of Gornji Kosinj and the village of Mlakve have a better future ahead, some important questions were omitted. For example, how the elderly rural population will get used to large backyards and domestic animals, whose properties (as well as archeological finds, cemeteries, churches and schools) will be flooded, get used to living in buildings that are planned to compensate expropriated villagers. However, given that the process of flooding these villages has been going on for years, the number of remaining inhabitants is reduced to a few dozen people.

Josip Pintar from Eko Kosinj explained to Deutsche Welle that "the state of emergency in that area lasts too long and leaves consequences that will be difficult to repair." Adding, of course, since the accumulation is planned there, "people cannot upgrade their properties, they do not have the right to building or use permits." Pintar concludes that there is no water supply there from the infrastructure, "it simply bypassed them and they are slowly moving out. Agriculture is slowing down, there is no tourism, the people are slowly moving out."

### **Project science and expertise**

The sociological consequences are not the only problem of this project, the science and expertise behind it also raise many questions. The hydroelectric power plant is planned to be built on karst-type terrain, and a huge concrete curtain is planned in the karst, 60 to 90 meters deep, six kilometers long - with about 75 thousand tons of cement. In such terrain, it is impossible to predict the movement of groundwater through all unexplored failures, so entire construction interventions could ultimately require significantly larger quantities of injected material, moreover, this additional material could be needed so much that the whole project will not be financially viable in a planned way.

Apart from the consequences of the project for nature and society, and its potentially

unprofitable financial constructions, the project documentation does not work either. Another stumbling block is environmental impact studies, which here, as in other examples of potentially problematic energy projects, are a weak point prone to corruption. Not to mention the recent scandal with wind farms, is a very similar example with the already built hydroelectric power plant Lesce, the first built in Croatia after the war. Mandatory environmental impact study for Lesce, as well as the first environmental impact study for the project Kosinj / Senj 2, made in the 80s of the 20th century. The first attempts to build a hydroelectric power plant in the Kosinj area began about ten years ago on the basis of an already outdated study. Given that in the last ten years, in parallel with scientific progress, the legal provisions on environmental protection have been accelerated and thickened, environmental standards are significantly different today than at the time of the study. Given the similarities in the projects, it is worth examining the natural and social consequences produced by HPP Lesce, which affect residents living in the vicinity of the rivers Dobra, Mreznica and Kupa. According to an article on the Energetika portal: "HEP's Hidroelektrana Lesce, in operation since 2010, which was made by a decision of the relevant ministry based on a 20-year-old, unaudited environmental impact study, creates problems for residents along the Dobra River." First of all, everything that environmental activists predicted came true, no matter how excessive it may have sounded at the time. Since no biological, bio-speleological and ecological research had been carried out prior to construction, it was not possible to officially assess the actual impact of the dam (a necessary part of any HPP) on the environment.

HPP Lesce produces relatively little electricity. Within a year of the power plant's commissioning, the soil and nearby roads were eroded, the stability of bridges was endangered, the surrounding lands were flooded, and a water wave was frequent, killing fish, bathers and fishermen. In the strategic guidelines of the city of Karlovac 2012-2017. It is stated that the construction of the hydroelectric power plant Lesce, in addition to the devastation that occurred upstream, in order to create an accumulation lake, also caused changes in natural conditions downstream. The power plant changed the migration route of fish, endangered flood defense systems, changed groundwater regimes, conditioned the reduction of agricultural land use and changed the temperature regime of Dobra and Mreznica. The consequences are so numerous that a working group for damage reduction and remediation has been established.

### **Environmental defense lawsuits**

The consequences of HPP Lesce caused so much revolt of the surrounding population and

environmental associations that Zelena akcija and partners managed to win the second environmental impact study for the construction of HPP Kosinj / Senj 2, which this year received a positive assessment from the court in Rijeka and the Ministry of Environment and spatial planning and the power plant can be built. Despite the green light of the institutions, Green Action has filed a lawsuit against this study because, although new, it was conducted flawedly and written vaguely.

Zeljka Leljak Gracin, coordinator of the program "Environmental Rights" in the Green Action says that the Green Action before the Administrative Court in Rijeka in 2018 filed a lawsuit against the Decision of the Ministry of Environment and Energy which assessed the intervention in the environment - Kosinj hydropower system the environment." According to Gracin, only one hearing was held in the case (December 12, 2019), which lasted extremely short, and eight days later a verdict was passed rejecting our lawsuit. "

Just before the "lockdown", continues Leljak-Gracin, the verdict was delivered to us and we filed an appeal with the High Administrative Court on March 13, 2020. So far, we have not received a decision from the High Administrative Court, but it is not surprising because such decisions are not made overnight. Theoretically, therefore, there is still a possibility that the High Administrative Court will accept our appeal and annul the first instance verdict. That would mean (at least temporarily) stopping this project."

The fact is, she points out, that "regardless of the fact that the decision on environmental acceptability is still in court, the investor has the green light to implement the project because, according to our regulations, a lawsuit to the administrative court does not suspend the decision. However, the investor continues the realization at his own risk, ie. if by any chance the decision is annulled, he cannot continue because then the location and other obtained permits fall into the water. We'll see if that happens."

Source: [bilten.org](http://bilten.org)