



## **Optimizing the size of Hilarion dam with technical, economical and environmental parameters.**

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The construction and operation of large dams has been questioned in recent years as, despite their positive effect on the economy, they are regarded as negative to the environment. The size of a dam, in particular, is an important aspect of this debate as it is thought to increase its economic benefit but also its environmental impacts.

We investigate the dam scale issue based on a case study for the Hilarion dam, located in Kozani, Greece. More specifically, in an effort to examine the problem of optimal project scale, we quantify selected technical, economic and environmental parameters of the Hilarion dam for different hypothetical scenarios of dam size including its original size. The various scenarios are compared on a cost-benefit basis to provide a first approximation of the exact relation between dam size and its technical, environmental and economic characteristics.