

Green energy or healthy rivers? Tensions in the governance of Swiss hydropower

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RÉSUMÉ

Dans cet article, nous examinons les tensions entre la production hydroélectrique et la protection des écosystèmes fluviaux dans différents secteurs politiques en Suisse et la manière dont ces tensions se manifestent dans les débats nationaux, la gouvernance locale et la mise en œuvre de projets.

Les préoccupations concernant l'état des rivières ont amené des réponses diverses de la part des autorités et du public. De nouvelles mesures politiques en faveur des rivières exigent que les cantons mettent en œuvre des plans de renaturation des rivières et que les exploitants assainissent les centrales hydroélectriques. Parallèlement, les électeurs suisses ont accepté une nouvelle stratégie énergétique qui prévoit l'expansion de l'hydroélectricité. Dans le contexte de la transition énergétique, cela donne lieu à des controverses répétées « énergie propre vs. environnement ».

Sur la base d'une analyse de médias, d'entrevues et d'études de cas, nous décrivons comment les controverses sur la production d'hydroélectricité et la protection des rivières se matérialisent dans différents contextes. Nous soulignons comment les approches actuelles pour l'implication des parties prenantes et autres mesures participatives, tout en permettant de trouver solutions locales, entravent une gouvernance intégrative des rivières et de l'hydroélectricité en Suisse.

ABSTRACT

In this paper, we examine how the tensions between hydropower production and the protection of rivers in Switzerland is framed in different policy sectors and how these tensions manifest at the level of national policy debates, local governance and project implementation.

In the past years concerns about the state of rivers have received increased attention from the part of policy makers and public. New policy measures in favour of rivers require the cantons to develop and implement river restoration plans and hydropower plant operators minimize their environmental impact. During the same period, Swiss voters have accepted a new energy strategy that plans the expansion of hydropower. In the context of the energy transition, this has led to repeated controversies about clean energy vs. the environment.

Based on media analyses, interviews with policymakers and case studies we describe how the controversies between hydropower production and the protection of rivers materializes in different contexts. We highlight how current approaches to stakeholder involvement and other participatory measures while enabling local solutions hinder an integrative governance of rivers and hydropower in Switzerland.

MOTS CLES

Controversies, governance, hydropower, participation, river restoration,

Hydropower represents about 60% of electricity generation in Switzerland. About 90% of hydropower is generated by run-of-the-river, storage or pumped plants of over 10MW capacity (fed statistics). These large infrastructures located mostly in Alpine regions have significant impact on the landscape, river flows, but also local and regional economies. Despite its environmental impact, large hydropower is still considered positively by the Swiss population (Blumer et al. 2020). However, in recent years, several projects for new dams or dam extensions have created heated controversies (Sierro et al. 2021)

Furthermore, in the past years concerns about the state of rivers have received increased attention from the part of policy makers, but also among the Swiss population. In 2010 the Federal water protection law was revised in response to a citizen initiative that would have drastically constrained hydropower production in Switzerland. The revised Federal law requires hydropower producers to reduce the impact of their infrastructure on river flow and habitats and to enable ecological continuity by 2030. More recently two citizen initiatives on water protection failed to pass. Still this highlights the salience and regular presence of river related issues in public debates.

In this paper, we examine how the tensions between hydropower production and the protection of river ecosystems are framed in different policy areas and how these tensions manifest at the level of national policy debates, local governance and project implementation.

1 BRIEF OVERVIEW OF THE GOVERNANCE CONTEXT

1.1 River management in Switzerland

In Switzerland, the federal government (i.e. the national level) formulates the legal framework for river management. The cantons (i.e. the states, corresponding to the regional level) are responsible for the implementation of the federal. They can delegate this responsibility to the municipal level. Since the early 2000's the restoration of rivers has become a cornerstone of the Swiss river management policy in order to meet both flood protection and environmental policy goals.

The federal government incentivises participation in river management through guidelines and subsidies. This is in response to the use instruments of semi-direct democracy such as referenda and initiatives that enable citizens to oppose governmental decisions at all state levels. This right to opposition is extended by legal and administrative procedures that allow residents to contest planning projects. Authorities see participation as a way to avoid lengthy legal or political processes with uncertain outcomes.

1.2 Hydropower in the Energy strategy

Like river management, governance of hydropower involves different federal levels. The Federal states formulates general strategic principles for hydropower. For instance, the new Federal Energy Strategy expects an increase of 2000 GWh of hydropower production by 2050. The cantons are delivering the authorisation for the building of new hydropower plants or the extension of existing ones. Cantons are also often shareholders in public utilities operating hydropower plants. In some cases they might also own water rights and as such grant concession to operators. More generally, cantons are responsible for land use and energy planning, which makes them central actors in the governance of hydropower.

2 TENSIONS BETWEEN ENERGY SUPPLY AND ENVIRONMENTAL CONCERNS

2.1 Energy supply vs river protection in public discourse

A media analysis conducted on 3 German and French language newspapers highlighted that despite their central role, the cantons appear as absent. Reporting about the governance of Swiss hydropower focuses mainly on the Federal state and operators as the driving actors. The role of mountain municipalities as concession givers is often discussed with regard to the amount of remittances they receive.

One of the key framings of hydropower in Swiss public discourse is to highlight the conflict between energy needs and climate change policy on the one hand and environmental protection on the other. Especially in the media, the conflict is presented as one between operators and environmental NGOs, with the Federal state acting as a mediator.

2.2 Governing the tension between hydropower and river protection at the Cantonal and project level

Results from a study with cantonal officers in charge of supervising authorizations for hydropower projects offer a different view of the tensions between clean energy and river protection. They do not primarily perceive the environment vs. energy conflict as a problem between operators and NGOs, but as a problem of coordination of political goals at the federal level and a clarification of norms. They stressed that negotiations between NGOs and operators, although contentious are possible as they usually involve experts on both sides. Hence discussions focus on technical and legal aspects and can be settle when the framework conditions are clear.

Two case studies on about the pump-storage plants of Linth-Limmern and Lago Bianco, also highlighted this dimension (Sierro et al. 2021). There, after initial opposition to proposed extension of the infrastructure, the operators revised the projects plans based on the outcome of negotiations with environmental NGOs. Results highlight that all parties considered that the depoliticization of negotiations enabled the agreements.

3 DISCUSSION

Tensions and controversies between renewable energy supply and river protection are part of public debates in Switzerland. The issue is politicized by regular media coverage, national and cantonal citizen initiatives as well as public opposition to projects. However, our results show that responses to these tensions are largely dealt case by case by experts and that the contradiction between the policy goals have not been resolved.

The December 2019 revision of the Federal law on the use of hydropower attempted to provide some clarity by prioritizing energy. But it also led to immediate critique from NGOs and officers of the Federal office of the environment also questioned the content of the revision. This illustrates the necessity to go beyond depoliticised expert led negotiations in order to address the question politically as both energy provision and river protection appear to be key issues to the population.

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