## **Elusive Springs and Hard Questions**

## **Christopher Butler**

My friend Ramesh Bhusal has written an intriguing series of articles for The Third Pole on hydropower development in the Koshi basin Nepal. For anyone interested in the future of Nepali hydropower, it is essential reading<sup>1</sup>.

Starting in the mountains Bhusal journeys southward to the Indian border, taking account of all the myriad water challenges that Nepalis face as the country moves closer and closer to realizing the hydropower futures it has long sought. In the mountains, landslides, earthquakes and melting glaciers create substantial uncertainty among residents. In the pahad, children-mostly girls-walk hours each day to fetch water. Infrastructure might solve this problem by bringing water to communities, but none yet exists. Several hydropower schemes are planned for the Koshi, but the 2015 earthquake raised renewed calls for an integrated water management plan that would not necessarily prioritize hydropower. Finally, on the southern end in the terai, Bhusal talks to local farmers who endure annual flooding that decimates their crops and presents a constant existential threat to their livelihoods.

Together Bhusal paints an indelible portrait of an extremely complex environmental scenario - a essential good-water-with multiple demands on its services and yet little in the way of systems for distribution. A good that is plentiful in Nepal, and vet few have sufficient access: the Water and Energy Commission Secretariat report that only 7% of Nepal's annual surface water is used for economic growth<sup>2</sup>.

We want to believe that the government is working its way to a state of action again after more than a year of in-fighting and general lethargy. But the early reports have not been good<sup>3</sup>. As of this writing, it appears that the Oli-led government will be overcome by the end of the year, marking the 23<sup>rd</sup> government to rule Nepal in just 25 years of democracy... hardly the lengths of tenure required to effect enduring programs and change. The government reaction to the earthquake continues to draw criticism for harboring billions in relief funds and providing no justification for its slow response.

Still, even if the government does spring to life, there are several hard questions to be answered. Will the Oli government, or the one to replace it, be able to resolve the myriad political differences in parliament and devote itself to restoring the livelihoods and infrastructure damaged more than a year ago? Does Nepal have enough labor left within its borders (that is, young men and women not having migrated for work) to provide a foundation for invigorating its production and agriculture? And finally-because this is a water-focused journal- will the state be able to deliver development through its two most important



hydro projects: the Upper Karnali hydroelectric project and the Melamchi water provision scheme?

One year past the earthquake, Nepal's hydropower portfolio needs reconsideration. Whereas preearthquake, the rush to maximize megawatts for sale and trade dominated conferences, today the discussions are more restrained, more focused on a variety of hydro modalities. The country needs a portfolio that can eliminate load shedding and meet Nepal's growth rates over the next 50 years while also providing some surplus that could be sold to India. The earthquake did not eliminate India's need for additional energy.

Finally, it should be noted that ICIMOD<sup>4</sup> has produced several publications over the past two years dedicated to solving the issue of "disappearing" springs in the midhills of Nepal. The hydrological dynamics of these water sources have been poorly understood and generally understudied. Given that technologies are increasing the amount of water that can be drawn (pumps, irrigation systems, storage tanks), springs are becoming ever more temporary and fleeting. Thus, ICIMOD suggests, the precise relationships between extraction, recharge, and water use require greater investigation. When one considers that hydropower schemes will impact these relationships to an even greater degree, the challenges loom mightily in our future collective hydro-visions.

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## **Footnotes**

- 1 Bhusal, Ramesh. 2016. "The Koshi River: A Journey down the Lifeline of Nepal." The Third Pole. June 19-July 2. https://www.thethirdpole.net/koshi-basin.
- Government of Nepal Water and Energy Commission 2 Secretariat. 2011. Water resources of Nepal in the context of climate change. Kathmandu: Government of Nepal-Water and Energy Commission Secretariat.
- Lewontin, Max. 2016. "More than a year after Nepal 3 quake, government agrees to spee dup aid." Christian Science Monitor. June 30. http://www.csmonitor. com/World/Asia-South-Central/2016/0630/Morethan-a-year-after-Nepal-quake-government-agreesto-speed-up-aid-video
- As just one example: "Reviving the Dying Springs: 4 Reinforcing Social Development and Economic Growth in the Midhills of Nepal." February 2015. ICIMOD. Issue Brief. http://lib.icimod.org/record/30276