

## *Sacred River – Sacred Landscapes*

### *Conserving Nepal's Last Free-Flowing River*

#### *Background Information*

Of the three major rivers emerging from the Nepal Himalaya—the Koshi, the Gandaki, and the Karnali—the Karnali is the only river that remains free-flowing. All others have been dammed for hydropower generation, reflecting an increasingly intensive pattern of hydropower development across Nepal. Currently mega hydropower dams are being planned in the Karnali River, and the construction of any one of those dams will forever change the essence and flow of the Karnali River, as well as the diverse values and benefits derived from it. The construction of all three will devastate the river system and the cultures, species and economies that depend on it. There is an urgent need to prevent damming and the cultural, economic, and environmental devastation it would cause.

The Wall Street Journal recently characterized Nepal as a “Himalayan nation [that] is betting that a new energy gold rush, borne of its thousands of rivers and craggy peaks, will establish it as a major Asian electricity source” ([Stacey 2017](#)). Importantly, the vast majority of dams (especially large dams) built during this immanent ‘gold rush’ will not provide electricity to Nepal—while Nepal bears the social and environmental costs, the majority of power will be exported to India, Bangladesh, and (potentially) other South Asian neighbors. Currently, 43 hydropower dams producing over 1MW are already in operation, and another 83 dams are currently under construction. In total, over 350 hydropower dams are slated for development—in fact, the licenses have already been sold ([Niti Foundation, 2015](#)). In no uncertain terms, hydropower development at this scale will affect every river basin in Nepal, with significant yet highly uncertain impacts. And yet, tellingly, there is no national hydropower development strategy in Nepal that attempts to calculate or mitigate cumulative environmental impacts ([Lord 2016](#)) or that fully accounts for the significant risk of earthquakes or other geologic hazards ([Rest, Lord, & Butler 2015](#)). Put simply, while Nepal still needs electricity, it does not need 350 dams.

The 900 MW Upper Karnali Hydropower Project (UKH), the first of three projects proposed on the Karnali River, would be the largest dam in Nepal. This massive and controversial storage project will **dewater 50 kilometers** of stream channel during low flow season (October to June) effectively eliminating riverine habitat, irrigation capacity, and rafting potential in that section. In addition, traditional farming practices and nomadic livelihoods will be lost or severely disrupted by the project, and the risk of flooding will increase, causing loss of life and property downstream. Currently, three endemic fish species are known in the Karnali River, with key scientists convinced that more endemic species will be discovered following a more intensive inventory (Sharma, personal communication). Endangered species (i.e. the Golden Mahseer and Ganges River Dolphin and the Longfin Freshwater Eel) that migrate through this section of the river will also lose their habitat and access to

spawning grounds. And this is to say nothing of seismic risks in this area of Western Nepal, which is an estimated 500 years overdue for a massive earthquake, 8.0 magnitude or above ([Bilham 2015](#)). In short, the proposed dam would pose a variety of immediate and long-term risks.

While the Upper Karnali Hydropower Project has been highly contested for several years by a variety of different parties—ranging from locals organizing protests to cases filed in the Nepal Supreme Court by concerned scientists and civil society groups (Butler 2016; Pandit et al 2014)—the project is now quickly moving forward with the GMR Consortium (India) at the helm. Further, local populations are increasingly divided over the project, as the circulation of information about the project and its potential impacts is highly uneven (Butler 2016). As it stands, there is a great need both to understand the diverse perspectives of locals and to create different kinds of educational/narrative materials that can speak to a variety of audiences. Amid these uncertainties, recent news ([Kathmandu Post 2017](#)) suggests that land acquisition for the project will begin in the summer months of 2017.

Now is the time to convince the Prime Minister of Nepal to halt dam construction in the Karnali River until a basin-wide environmentally sound and safe hydropower dam strategy can be developed. If built, the Upper Karnali Hydropower Project will disrupt environmental flows and livelihoods, introduce new risks, and heighten vulnerability throughout the river corridor. Our collective efforts to promote both awareness and informed decision making, which are designed to function at a variety of different registers, are crucial at this particular moment.

## ***Proposal***

A film documentary and interdisciplinary scientific team including specialists from both the US and Nepal will jeep, trek, kayak, raft and canoe along the path of the Karnali River in western Nepal from the headwaters near Mt. Kailash on the Tibetan Plateau to the confluence with the Ganges River in India, a distance of 1080 km (618 mi.). The entire journey will be photo documented. The film production will follow a young Nepali kayaker in the first ever ascent from the seeps springs and glacial melt at the headwaters through remote and dangerous whitewater to the placid waters in the Nepal Terai onward to the Ganges River. The film will not only document this challenging and emotional journey but will also bring in a scientific understanding of the river, surrounding landscape, fish and wildlife that depend on the river and critical aspects that make the river what it is. The film is intended to raise international awareness of this incredible resource of Nepal that is threatened by hydropower development.

Each discipline specialist (ecologist, fisheries biologist, wildlife biologist, soil scientist/geomorphologist, hydrologist, rafting and kayaking experts, ecotourism specialist, and anthropologist) will collect information and describe the resources and values within their field of interest along the entire route. This work will include mapping key features, sampling fish and water quality, assessing sediment source zones, and conducting interviews and focus groups with local citizens to understand their relationship to the landscape and to the river. Assessment and disclosure of

the natural processes (erosion, sedimentation, hydrologic, and climatic) that control the aquatic and aquatic-dependent habitats created along the route will be highlighted to disclose the impacts of proposed hydropower dam construction will have in the watershed both upstream and downstream.

Each evening, the scientific and film crews will camp together and share findings and lessons learned that day. This constant engagement, and seeing the river and landscapes from such a broad array of disciplines perspectives will not only build collaboration among team participants but will greatly enrich the entire expedition and disclosure of the findings.

**Goals:**

- Raise international awareness of this sacred river, the sacred landscapes through which it flows and the multiple cultures that depend upon it
  - Delineate and describe what would be lost and gained with hydropower development of the Karnali River using an interdisciplinary scientific approach and a multi-media approach to storytelling
- Document and describe the environmental, cultural, and spiritual values of the Karnali River Basin.
  - Catalog and characterize outstanding environmental qualities and natural resource values of the basin through scientific observation and data collection
  - Collect information that speaks to the social and cultural diversity of the region, presenting the ways that different people live with and make use of the river in everyday practice
  - Attempt to understand the ways that different people in the 'project-affected area' and other upstream/downstream populations conceptualize hydropower development and its potential impacts on the Karnali River
- Explore opportunities for developing a cultural/spiritual/ environmental "Sacred River Corridor" from Mt. Kailash to the Ganges
  - Engage multi-national cooperation (China, Nepal, India) for Karnali River conservation efforts by engaging international scientists in the expedition and by establishing an international corridor to protect the river and its people.
- Protect the last and most pristine free-flowing river in Nepal from hydropower development

**Outcomes:**

- A feature length film following a young Nepali kayaker attempting an inspiring feat on an inspirational river while connecting to the river itself and relying on the science team to tell the greater story of this remote free flowing river.
- A scientific investigation of the entire Karnali River and surrounding landscape from the headwaters near Mt. Kailash in Tibet to the confluence of the Ganges River in India that disclose the pros and cons of hydropower damming effects on the cultural and environmental aspects of the area.

- A “Sacred River Corridor” concept plan to create a cultural, historic, and wild river corridor linking China, Nepal, and India
- Increased scientific credibility that highlights remarkable and outstanding values as a basis for proposing Wild and Scenic River legislation in Nepal

Measures of success will include film making awards; production and dissemination of a “Sacred River Corridor” concept plan to pertinent decision makers as well as local communities through the Nepali Riverkeepers groups so that over time, they can make the plan their own plan to implement. Each specialist will document their findings in a report, some to be submitted for peer reviewed publications, that will be presented at the 2019 3<sup>rd</sup> National River Summit to be held on the banks of the Karnali River.

### ***How YOU Can Help***

- Donate to Help Finance the Expedition:
 

We are currently preparing grant applications and seeking private funding for the Karnali Expedition 2018. Your contribution will help us provide matching funds to these grants

Please make a contribution through <http://www.nrct.org.np/contribute.html>.
- Host a fund raising event – see contacts below
- Join the Expedition\*
- For a gift of \$25,000 you can join the science team on a portion of the expedition (limited opportunities available)
- Join Nepal River Conservation Trust
  - <http://www.nrct.org.np/gallery.html>
- Join Karnali River Waterkeeper
  - <https://waterkeeper.org/waterkeeper/MDAxMWEwMDAwMFQ1c1N1QUFK/karnali-river-waterkeeper/>
- Spread the Word – we encourage you to share this web page link with your networks or any interested parties

### ***Future Events***

Keep your eye out for these events that will be posted on the NRCT website

- Annual spring and fall Karnali rafting expeditions to promote river conservation
- 3<sup>rd</sup> National River Summit – 2019 Karnali River, based in Bardia National Park, expanded to all Himalayan River countries (Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan)