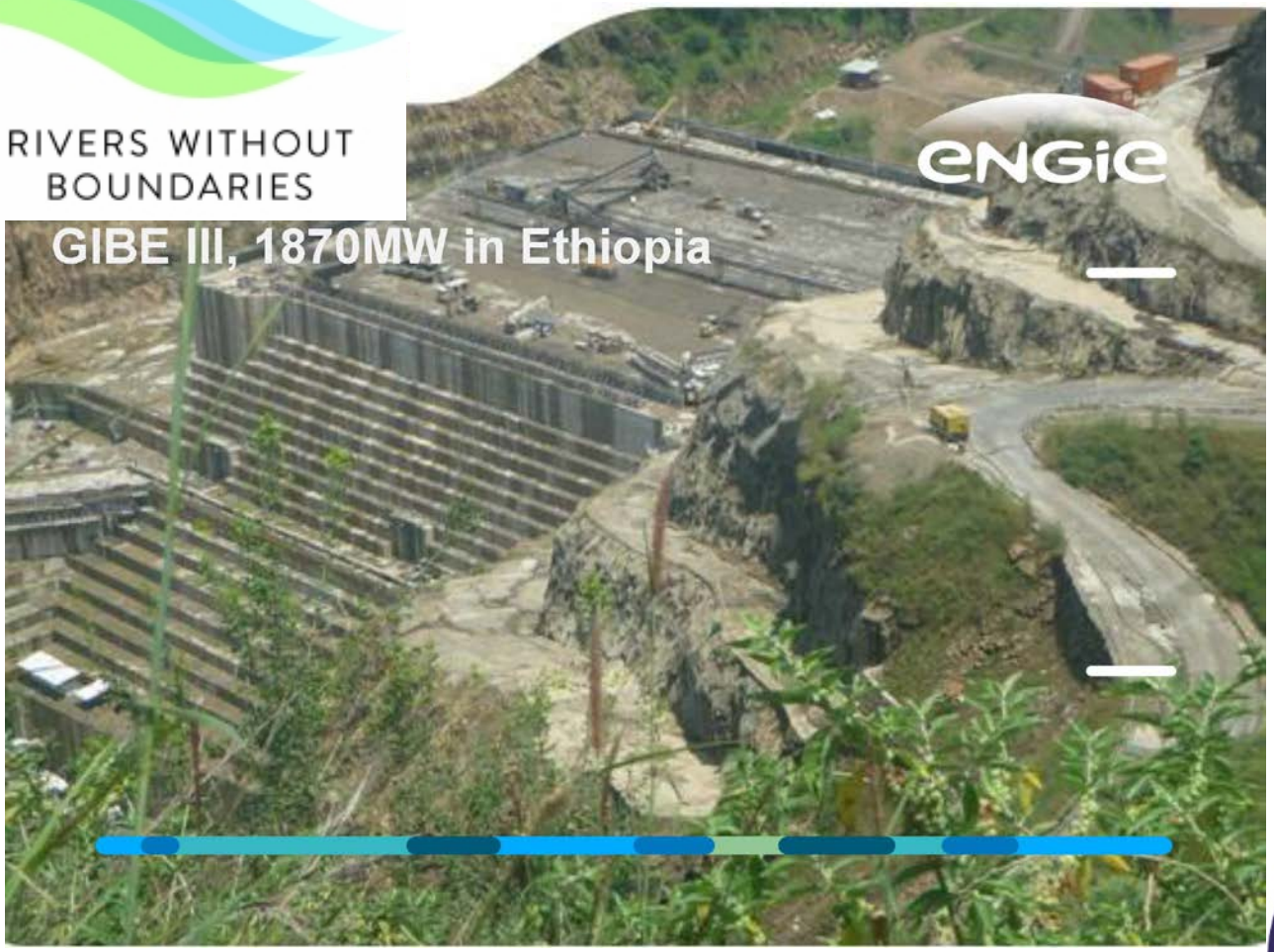
Damming Our Natural Heritage

Civil Society Perspectives Presented at the World Hydropower Congress. May 16, 2019

RIVERS WITHOUT BOUNDARIES



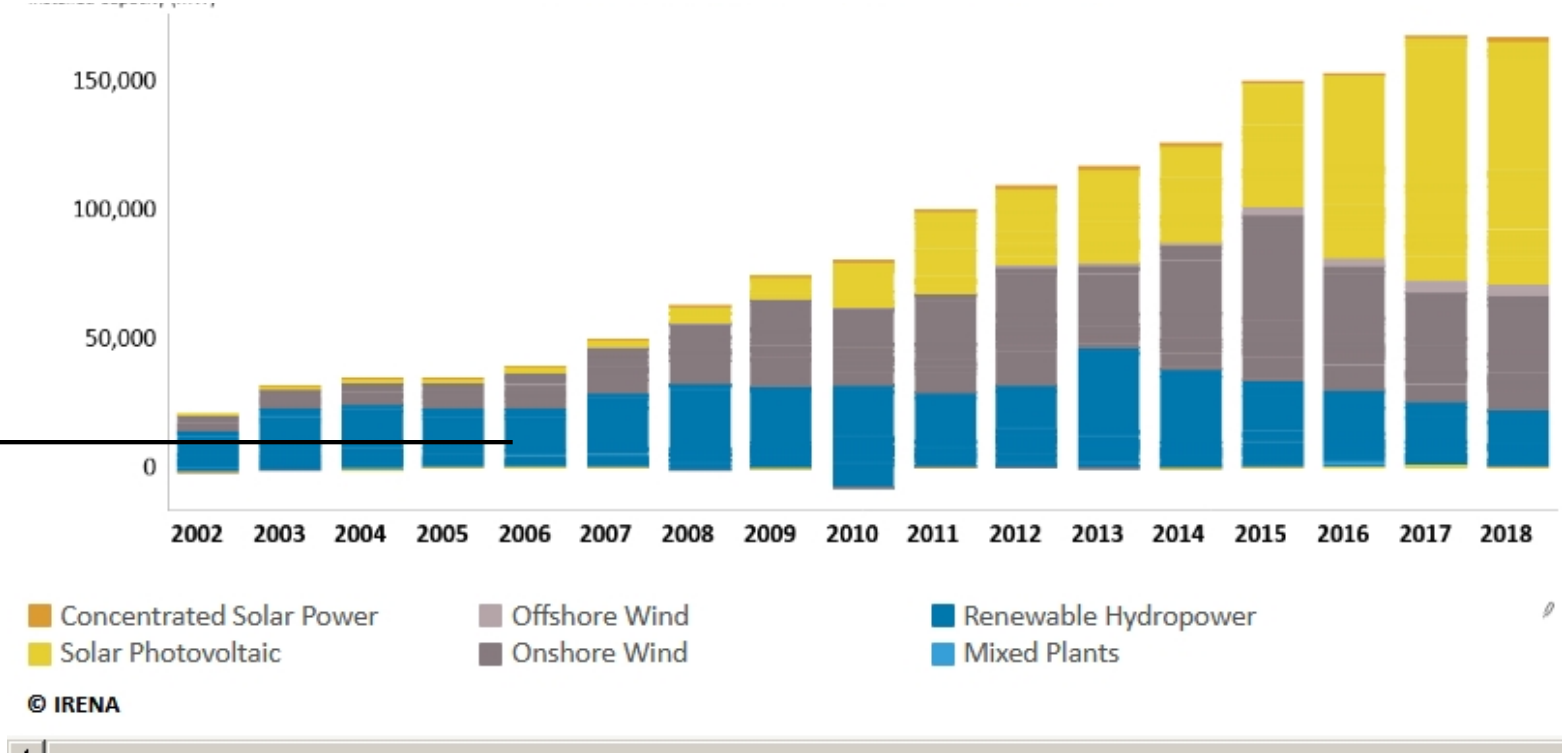
Eugene Simonov, DoC.

Rivers without Boundaries International Coalition(RwB)

SEARCHING FOR SUSTAINABLE HYDROPOWER

Damage increases even with hydro slowdown

Annual installation of hydro, solar, wind 2002-2018 (IRENA DB).



From 2014 to 2018 annual growth in global hydropower capacity fell by 53%.

In the same 5 years number of natural World Heritage sites threatened by water infrastructure increased by 14%[1]

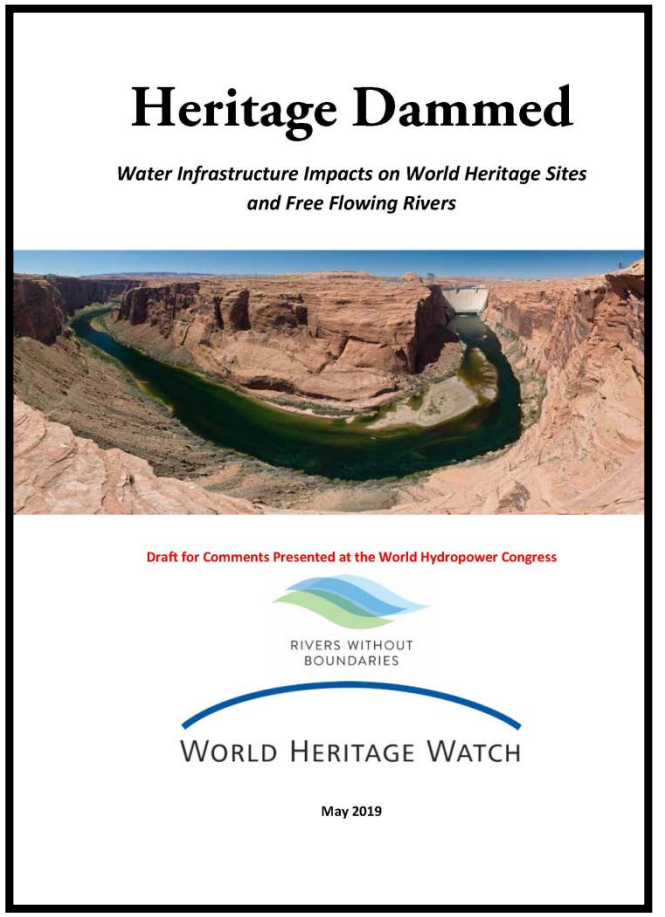
[1] Data from draft decision 42COM/7 compared with previous UNESCO statistics on threats to WH.

"Heritage Dammed"

The Report Covers Dam Impacts in 2012-2018

Out of 51 World Heritage with conflicts related to water infrastructure:

- **42 sites experienced threats from hydropower**;
- In 26 cases the hydropower impacts\threats were substantial and likely irreversible;
- Only in 6 cases the risk was fully avoided or mitigated.



PLEASE SEND US COMMENTS ON **"Heritage Dammed" Draft Report** *http://www.transrivers.org/2019/2629/ BEFORE MAY 20th!!!*

IPBES: We Cannot Afford to Lose More Wild Nature

- ***Why damage increases even as dam building is subsiding? Because natural rivers are scarce and irreplaceable resource, which is being rapidly degraded by water infrastructure and many other pressures***
  Last remaining wild rivers are targeted for damming: Congo, Lena, Irrawaddy, Vjosa, Nu-Salween, Amur-Heilong, Selenge, Karnali, etc.

- ***Freshwater ecosystems are the most affected part of biodiversity , and the least protected by legal means and by customary practices of business... Dam siting rarely is driven by conservation needs.***

  Is it still "good" to dam a new "untapped" river...?

- **New Report by the UN Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) shows we are at the brink of irreversible destruction and massive extinction. This calls for immediate protection the remaining wild rivers as well as respecting and expanding protected areas for freshwater biota**

WHAT SHOULD BE DONE?

I. Protect remaining wild rivers

The first and most important measure to be undertaken now is to **radically limit number of natural river stretches open to greenfield hydropower development and other damming .**

The Last Wild River of Europe -Vjosa (Albania) - Immediately Threatened by 2 Dams Built by Turkish Companies **(photo (c) Roland Dorozhani)**

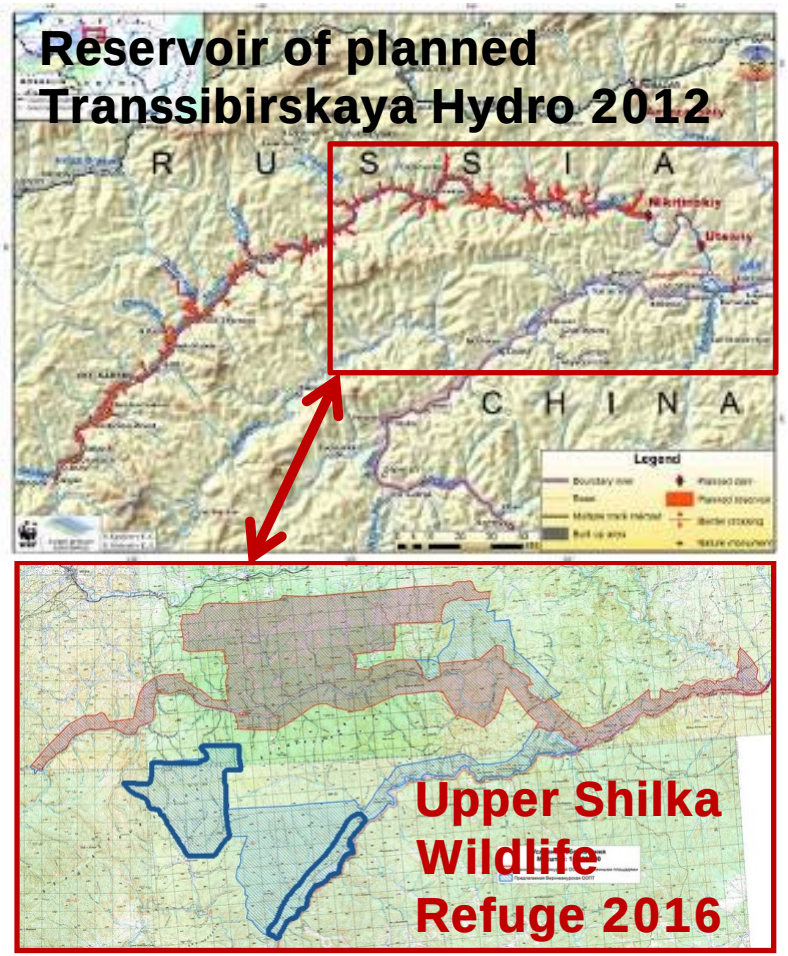
Karnali River (Ganges basin) -Nepal's Last Most Pristine Free Flowing River Threatened by 5 Dam Projects

(photo by Nabin Baral , Karnali Expedition 2018)

II. ALL Conservation Tools to be Activated

Co-management with indigenous river-guardians and local communities -at the heart of new concept for river conservation;

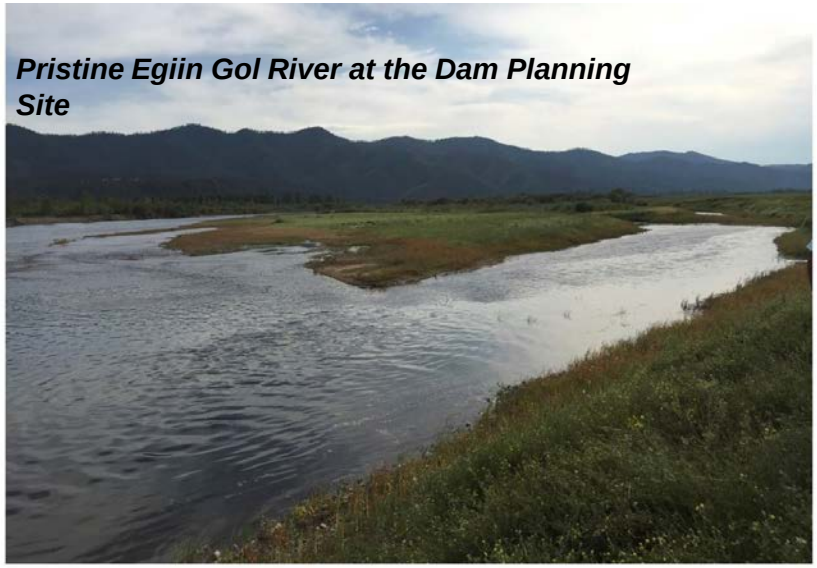
Hydropower companies and the IHA could cooperate with other stakeholders to recognize and map valuable "no go" rivers to abstain from damming them and contribute to their protection through proactive conservation measures.



Site Proposed for Transsibirskaya Hydro Dam on Shilka River where thanks to multi-stakeholder dialogue a Wildlife Refuge was created. (WWF/RwB)

Promising Example Set by China Eximbank

- In 2015 China Exim-Bank signed a 1bn USD concession loan with Mongolia , largely to support construction of a 310 MW Egiin Gol Hydro in Selenge River -Baikal Lake Basin.
- In 2016 after obtaining information on potential transboundary damage to the Lake Baikal World Heritage Site the China Exim Bank has frozen the loan. Gezhouba Co. stopped its bulldozers.
- In 2018 the loan was redirected to 12 other more sustainable development projects in Mongolia.



Pristine Egiin Gol River at the Dam Planning Site

Machinery of the Gezhouba Co. at Egiin Gol. 2015

III. Respect the Protected Areas!

Any key biodiversity areas and nature reserves should be off-limits for large-scale water infrastructure development and undue upstream and downstream impacts from hydropower.

Dams negatively affecting protected areas and important biodiversity zones, should be modified or decommissioned to ensure rehabilitation of river systems.

Industry members should develop specific policies to keep nature reserves and key biodiversity areas intact and transparent due diligence procedures to implement the polices.

Internationally nominated sites and IUCN I and II category PAs should receive most urgent attention.

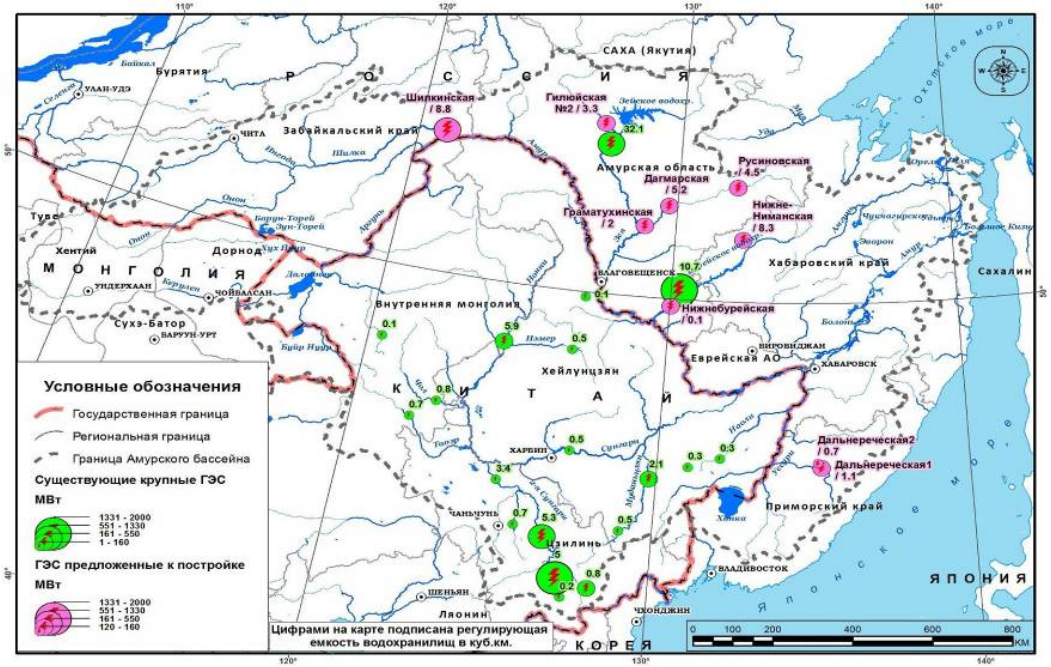
Argentino Lake in Los Glaciares NP (Argentina) Threatened by Dam Cascade (Turbo Contenidos)

Rufiji River in Selous World Heritage Site Threatened by Damming (Greg Armfield)

IV. Sustainable River-Basin Planning and Management

Comprehensive river basin management plans should undergo the SEA and focus on biodiversity conservation, sustaining and enhancing natural ecosystem services, needs of local communities and sustainable development of local economies (including hydropower, when needed);

Human rights-based approach , FPIC and community co-management of river basins should be fully incorporated as main principles in such management system.



Example: *Rapid strategic assessment of hydropower options in the Amur - Heilong River Basin by* ***En+Group and WWF Russia****.* ***Key Findings****: In the same river basin negative impact from different possible cascades with the same capacity or the same annual generation volume may differ 5-10 fold depending on chosen damming sites and reservoir characteristics.*

Basin-wide Assessment in Amur-Heilong River Basin

- *In 2012 NGO-designed basin-wide strategic assessment of hydropower impacts in Amur river basin became a basis for collaboration with the private En+Group which planned to build a "Transsibirskaya" hydro in Amur river headwaters (Shilka) and encountered firm local opposition. After assessment of 40 options, done jointly with WWF the En+Group (Evrosibenergo) decided not to proceed with the dam.*
- *Key finding: "Sustainable development options" readily available while utilizing up to 25% of hydropower potential, but all scenarios exceeding that have some major negative basin-wide environmental consequences. However, already realized hydropower development scenario utilizing 25% of potential has one of the worst possible negative consequences as well.*
- Results of the assessment were presented to China Three Gorges Group (partners of the En+Group) and helped alert them about a variety of risks related to investment in Amur Basin hydropower.

V. Diversify Energy Mix

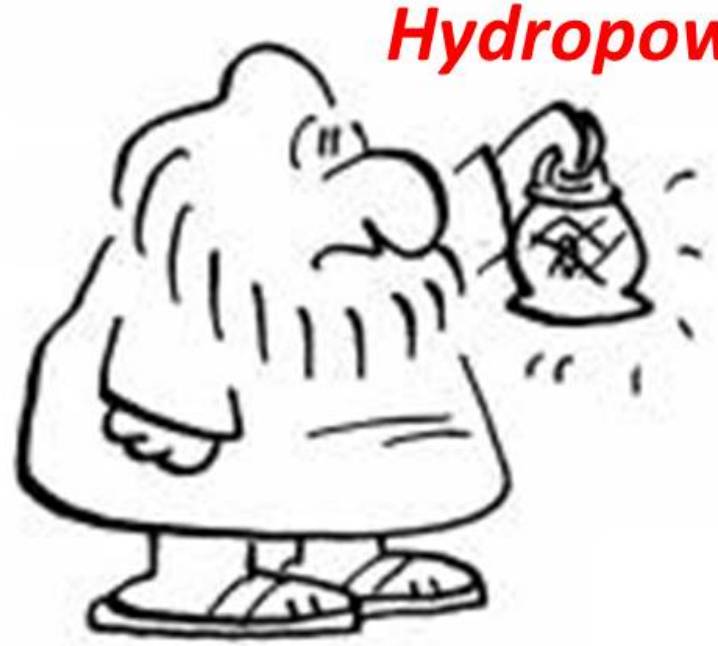
- From among dominant non-fossil energy sources industry-scale hydropower has most negative and irreversible impacts on nature [1] and local communities.
- Companies and state agencies should fully consider alternatives to hydropower, when forming investment portfolios. Existing hydro can be complimented by solar, wind, etc. to form more resilient energy systems.
- **Impacts on Biodiversity should be explicitly considered when choosing from among development scenarios. It would be a great shame and environmental catastrophe if greenfield hydropower stops expanding only when the World runs out of its natural rivers**

(some countries already did so and now are removing dams)

[1] Gibson et al. How Green is 'Green' Energy? Review in Trends in Ecology & Evolution · October 2017 DOI: 10.1016/j.tree.2017.09.007

Thank You for Your Attention!
We Are Still

Searching for Sustainable Hydropower



Yours,
Grassroots
NGOs