PRESS STATEMENT **NOV 20, 2012**

WORLD FISHERIES DAY, 2012

DAMS ARE DESTROYING FISHERIES & LIVELIHOODS

The World Fisheries Day (Nov 21[1]), is time for a reality check of our inland water fisheries in general and riverine fisheries in particular. Over twenty groups and eminent individuals including scientists and member of National Board of Wildlife and National Tiger Conservation Authority have sent a letter (contact SANDRP for a copy) to the Union Ministry of Environment Forests and its Expert Appraisal Committee on River Valley and Hydropower projects to take urgent steps for protection of inland water fisheries and millions dependent on them.

India stands second in terms of fisheries production in the world with a production recorded at 9.3 million tonnes (m T). 60% (5.8 m T) of the 9.3 m T is contributed by inland fisheries (FAO FISHSTAT 2010). Inland fisheries sector of India is not only a livelihoods provider (75% of 14.49 m fisherfolks are from the inland sector), but a crucial source of food/ nutritional security to millions of poor lining the banks of its 7 m ha of inland water area including 45,000 km of rivers, 1.2 m ha of floodplains, lakes and wetlands etc. Even waters categorized as derelict waters in statistics are not derelict to community residing by its bank as these could be a source of nutrition for the poorer communities.

The above figures could, more likely than not, be a gross underestimation given the widely dispersed nature of inland fisheries production (unlike its marine counterpart which is largely landing-center based) and also due to the fact that only the big marketable species are counted in. However, the small indigenous varieties which are most often considered as trash (in market parlance) play a huge role in ensuring nutritional security of the poorest of the poor. The Indian inland waters are also home to 877 indigenous species of freshwater fishes and 113 species of brackishwater species[2].

Though our inland waters are biodiversity rich supporting millions in terms of fisheries-based livelihoods and / or food (cheap protein in the form of fish), this very environment is constantly under threat of depletion and degradation due to changed land and water use pattern, in the name of development. The major culprit as shown by increasing number of **studies[3], reports, local experience are the 5,100+ large dams of India that hamper water cycle by drying up rivers, changing hydrology, increasing sedimentation, concentrating pollution/ pollutants, etc. This in turn blocks migration, destroy spawning grounds, spawning cues, etc affecting the fisheries and thereby fisheries-based livelihoods as well as the source of cheap nutrition for the poor.** Similarly, water pollution, over fishing and introduction of exotic species are also factors adversely affecting freshwater fisheries. However, dams are the greatest threat to riverine fisheries, see Annexure for some brief details in Indian context.

Fisherfolks are not even considered for rehabilitation or compensation when they get affected by dams, hydropower, diversion and other such projects and are left to fend for themselves.

Though efforts at mitigation through establishing hatcheries are one of the mainstays of the Environment Management Plans of such projects, the effectiveness of these interventions are rarely assessed by MoEF or

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[1] Nov 21 is being celebrated as world fisheries day since 1997 when fisheries associations, trade unions and groups met in Delhi where a charter was adopted and it was also decided to celebrate this day as World Fisheries day.

[2] Sarkar, U K; Jena, J, K; Singh S P; Singh A K and Rebello, S C. 2011. Documenting Coastal Fish Biodiversity of India: Status, Issues and Challenges. National Bureau of Fish Genetic Resources, Lucknow

[3] **Central Inland Fisheries Research Institute says: "**Larger dams are major cause of degradation of aquatic environment and disruption of livelihoods of communities dependent upon the fishery along the rivers. **In India, natural flow of all major rivers have been regulated for fulfilling water demand of agriculture and power sector, without giving any attention to fisheries sector. As a result, rivers have lost their character and fisheries have suffered huge losses."**

The Working Group (WG) 12th FYP states: "Water abstraction for irrigation and power generation is the biggest reason (for problems of inland fisheries), causing reduced or no flow in the main channel to support fisheries and other riverine fauna and flora."

The WG of 10th FYP said, **"**Riverine fishery is already showing a declining trend. Millions of fisherfolks and their families depend on rivers for their livelihood. These factors prompt an accent on development of riverine fisheries, which has rarely got the deserved emphasis of the planners. Therefore, it is the time, to take emergent steps to conserve our riverine fish biomass, to restore their habitat."

any credible agency. A credible baseline study on the biodiversity of the affected rivers is imperative step prior to the approval of any projects, but that is not happening either as part of the Environment Impact Assessment nor are there any credible cumulative impact assessment and carrying capacity studies before approving multiple projects on the same river.

Though India is a signatory to the Convention on Biological Diversity (CBD), huge loss of its aquatic biodiversity in general and fish biodiversity in particular is continuing unabated, CBD has been of no help, nor is the National Biodiversity Authority of any help.

The Ministry of Environment and Forests, Govt of India and the Expert Appraisal Committee on River Valley and Hydropower projects have taken the role of mute by-standers. Dams, even cascade of dams are increasingly being sanctioned in bio-diverse areas, without proper appraisal, properly researched mitigation measures including fish ladders, fish passes or proper environmental flow regimes, there is no monitoring of compliance of environmental laws, environment management plan or conditions of clearances, and decisions of the EAC are unscientific, inconsistent and ad hoc. For rare dams, they recommend fish ladders, but for most where it should be feasible they do not.

Fisheries Management Plans hinge on setting up hatcheries and fish farms, which are cost intensive, do not always help local species and communities and whose efficacy on river biodiversity is entirely unassessed. Fisheries Departments are getting crores of rupees per dam as compensation and additional amount for setting up hatcheries, so they are happily sanctioning more and more dams on hereto free flowing rivers like in Himachal, Uttarakhand, Jammu & Kashmir and North East.

EAC relies completely on almost entirely cooked up and false EIAs. The Comprehensive EIA for 200 MW Gundia HEP done for KPCL says that there are no endemic fish species in the region, where more than 6 new fish species have been discovered just in the past 6 months!

We urgently need: We hope on this World Fisheries Day, the MoEF and EAC will take some minimum steps for protection of the riverine fisheries and dependent fisherfolks.

1. We urge MoEF and specifically EAC to pay attention to in situ conservation of rivers and fish. At least one river should be declared per state as protected, no go zones for dams and hydropower projects to conserve fish biodiversity. More riverine areas should be protected under commitment to CBD and Wildlife Protection Act.
2. Research on fish passes and ladders appropriate for Indian conditions and fish species must be undertaken urgently by MoEF and organisations like CIFRI.
3. Appropriately designed Fish ladders & passes must be fitted to all existing barrages and dams where possible.
4. E flows norms should be stringent, river and species specific. Eflows releases should happen preferably happen through fish passes and ladders, certainly not additional turbines.
5. Free flowing distance of river between two dams in a cascade should be minimum 5 kms, not the current 1 or less than 1 km. This is also the norm suggested by the Avay Shukla Com appointed by the Himachal Pradesh High Court and reportedly now by the PM appointed B K Chaturvedi committee.
6. Amend EIA notification 2006 to include dams for drinking water, industrial supply, embankments and hydro above 1 MW to require clearances. Strong punitive action against shoddy EIA consultants submitting false reports.
7. Undertake assessment of fish diversity in various rivers and on impacts of dams on fish and livelihoods and reliable inland fish production statistics.
8. Bring out a white paper on effectiveness of hatcheries, including their impacts on riverine fish diversity and livelihoods, how the money allocated for hatcheries is spent.
9. Inventory of freshwater fisherfolks in India and their problems
10. Ensure that fishermen affected by dams are included in social impact assessment and adequately compensated, including fishing rights in reservoirs.
11. Consider the rivers from an ecosystem perspective rather than just as a source of water or just considering a particular stretch of river.
12. A Comprehensive National Inland Fisheries Act for protection of fisherfolks and fisheries.

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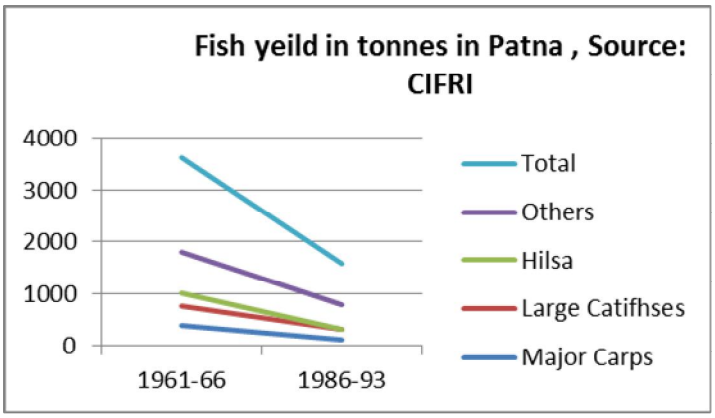
Annexure

Examples of Impact of Dams in Fisheries in India

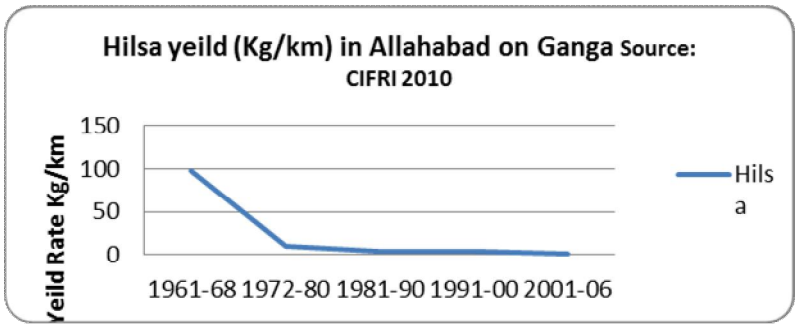
Fisheries in mighty rivers like Ganga, Krishna, Cauvery, Narmada, Sutlej, Pennar, Mahi and Sabarmati have collapsed already.



In Ganga, average yield of carps has come down by a whopping 90% in past four decades, from 26.25 kg/ha/year to 2.55 kg/ha/year (see adjacent table). Sedimentation has increased 30 times at Allahabad and Varanasi since 1980s. This has coincided with worst fisheries period.

Hilsa Fish, Bengali delicacy has suffered hige losses after commissioning Farakka Barrage in 1975. Prior to Farakka the fish migrated from Bay of Bengal upto Allahabad.

Post Farraka, the yield of Hilsa dropped from 91 kg/km in 1960s to near zero in 2006 in Allahabad. The fish production is declining year by year and can now be afforded only by the very rich. How water flow volume affects fishery can be well illustrated by Hooghly estuary, where the quantum jump in water volume after commissioning Farrakka Barrage resulted in sharp increase in estuarine fishery from 9482 t (1966-75: pre Farrakka period) to 62000 t (1999-2000).[4] However, Hilsa catch in almost all estuaries and rivers like Ganga, Krishna, Godavari, Mahanadi, Cauvery and Narmada have collapsed due to blockage caused by upstream dams.



Krishna Estuary has become hypersaline due to absence of water release. This has resulted in collapse of fisheries in the estuary. Mahseer fisheries have collapsed in Madhya Pradesh which once had the best Mahseer in India, following blockage to migration and changes caused by Bargi and Tawa Dams. Mahseer, which was once an abundant fish throughout Indian has now become endangered species.

Dams have also affected our **National Aquatic Animal Gangetic Dolphin** by blocking its migration, isolating groups, limiting food availability in the Ganga. It now thrives only in a few sanctuaries between barrages.

Impacts on Communities Fisher folk communities adversely affected by dams, hydropower projects and diversions in the upstream and downstream receive no rehabilitation or compensation. These are some of the poorest sections of Indian society. Wainganga Dam, mired in corruption charges and controversies will destroy livelihoods of more than 15000 people in the upstream of the dam, while we do not even have estimates for downstream losses.

[4] Pathak et al, Riverirne Ecology and Fisheries, vis a vis hydrodynamic alterations: Impacts and Remedial measures, CIFRI, 2010