Free flowing and biodiversity rich Rivers: *Most Endangered species in India*[1]

Above: River Cauvery at Shivasamudram, Karnataka. Numerous Mini Hydel Projects are threatening aquatic biodiversity here, without Environment Impact Assessments. Photo: SANDRP

India's Rich Riverine Biodiversity Indian Rivers are some of the last global frontiers of rich freshwater diversity, endangered and threatened species. According to India's National Biodiversity Action Plan[2] (p 15), "Nearly 50% of the aquatic plants of the world are recorded from the Indian sub-continent but only a few have been studied in detail." India is a mega diverse country with respect to freshwater fish species (650+ species). In freshwater fish diversity, India is eighth in the world and third in Asia.[3] At the same time, these rivers support millions of livelihoods and indigenous people. Rivers flowing through Eastern and North Eastern Himalayas and Western Ghats have been designated as global hotspots of freshwater biodiversity.

Has the CBD failed for India's rivers? The Convention on Biological Diversity, which entered into force in December 1993, has three objectives: the conservation of biological diversity; (ii) the sustainable use; and (iii) the fair and equitable sharing of the benefits arising out of their utilization.

In the context of aquatic biodiversity and rivers in India, we asked three questions: Where can we see impact of CBD in conservation of biodiversity in rivers? Where can we see impact of issue of sustainable use of rivers and its biodiversity in the context of dams? Where can we see impact of CBD in terms of communities being party or beneficiary of the use of riverine biodiversity in the context of dams, diversions and hydropower projects? **Unfortunately we could not find any such impacts in India.** We would like to know if there are indeed any in India or anywhere else in the world.

The Western Ghats hotspot is globally significant centre of diversity and endemism for freshwater species where close to 16% of the 1,146 freshwater taxa assessed are threatened with extinction, with a further 1.9% assessed as Near Threatened. While in the Eastern Himalayan Hotspot, nearly 31% species studied are data deficient and can be of very high conservation value.[4] Thousands of indigenous, forest dwelling tribes in the North East, Himalayas and Western Ghats depend entirely on these rivers for livelihoods. Many rivers and riverine stretches are sacred and are conserved actively by local communities.[5]

Today, India's Rivers, riverine biodiversity and river dependent communities are facing major threats: from large dams, pollution, encroachment, sand mining, deforestation and bad

[1] Note by www.sandrp.in as part of organising side event at CBD COP 11 at Hyderabad (India) in Oct 2012 on Impacts of Dams on Biodiversity: Socio-economic dimensions in the context of changing climate, contact parineeta.dandekar@gmail.com or ht.sandrp@gmail.com for comments, questions.
[2] http://nbaindia.org/uploaded/Biodiversityindia/NBAP.pdf, accessed on Oct 5, 2012
[3] Biju Kumar, *Exotic Fishes and Freshwater Fish Diversity,* Zoos Print Journal 2000
[4] http://www.iucn.org/about/work/programmes/species/our_work/about_freshwater/what_we_do_freshwater/western_ghats/
[5] http://www.internationalrivers.org/resources/india's-community-fish-sanctuaries-protect-wild-fish-and-rivers-1641
www.indiawaterportal.org/post/16079

management practises. These factors are impacting all aspects of rivers: ecological, social, cultural, religious, aesthetic, tourism-related and economic.

Time is running out for India's Rivers in the absence of any strong law, policy or framework for protecting its riverine biodiversity and dependent communities from this onslaught. Can the CBD help in this scenario?

More than 10.8 Million people depend on riverine fisheries alone which are degrading and collapsing at an alarming rate[6]. Large dams are planned and are under construction in and around and are affecting ecologically sensitive sites, protected areas, Ramsar sites, World Heritage Sites, Biosphere reserves, sacred sites, community conserved areas alike. Indigenous People are being hugely impacted by these and many have been protesting and sending representations to the MoEF to cancel these destructive projects.[7] Especially, in north eastern State of Sikkim, cascade of dams are destroying rivers and sites held sacred by many tribes and religions[8]. Nonetheless, dams are getting permissions, disregarding community concerns, ecological concerns, expert reports and even unanimous recommendations against projects from government appointed committees.[9] Dams are adversely affecting even the Ramsar wetland sites in India, but there is no reporting of this to CBD, nor is there any mitigation[10].

In this scenario, a Convention like CBD, aimed at protecting not only biodiversity, but also indigenous people and their right to natural resources, can be a boon.

Can the CBD COP decisions on Inland Waters Biodiversity, Protocols like Aichi Protocol, and Guidelines like Akwe Con guidelines help protect India's Rivers in any way? Two decades after the CBD was proposed at Rio, and a decade after the enactment of India's Biological Diversity Act of 2002, there is little evidence to suggest that CBD or the Ramsar convention has been helpful for protection of Indian rivers or for those who are dependent on the rivers.

Rivers, watersheds and aquatic ecosystems are the biological engines of the planet. They are the basis for life and the livelihoods of local communities. Dams transform landscapes and create risks of irreversible impacts. *(WCD[1] report p 234)*

India's flawed reporting to CBD on Inland Waters Biodiversity In India's reporting to the CBD under its Inland Waters Biodiversity Program of Work, Indian Rivers, their biodiversity and dependent communities find no mention so far through India Plan of Work on Protected Areas (2012)[11], India's Report to the Ramsar Convention (2011)[12], India's 4th Report to the CBD (2009)[13] or the National Biodiversity Action Plan (2008)[14]. Even the Draft "National Biodiversity Targets" for the period 2012-2020[15] has no mention of these issues.

[6] http://sandrp.in/dams/Impacts_of_Dams_on_Riverine_Fisheries_in_India_ParineetaDandekar_Sept2012.pdf
[7] http://indigenouspeoplesissues.com/index.php?option=com_content&view=article&id=15295:india-stop-state-brutality-and-repression-on-mass-protests-against-big-dams-and-for-the-rights-of-forest-people-in-the-north-east&catid=33&Itemid=66
[8] http://www.gorkhacreed.com/groups/gorkha-news/forum/topic/hydel-projects-on-the-rathong-chu-considered-holy-by-the-buddhists/ and http://www.actsikkim.com/dzongu.html and http://www.actsikkim.com/projects.html
[9] http://sandrp.in/dams/Demwe_Lower_Unacceptable_Wildlife_Clearance.pdf/view?searchterm=demwe
[10] For details, see: http://www.sandrp.in/rivers/Indias_wetlands_in_peril_Feb_2011.pdf
[11] http://www.cbd.int/protected/implementation/actionplans/country/?country=in
[12] http://www.ramsar.org/pdf/cop11/nr/cop11-nr-india.pdf
[13] http://www.cbd.int/doc/world/in/in-nr-04-p1-en.pdf
[14] http://www.envfor.nic.in/downloads/public-information/NBAP-iyb.pdf
[15] http://nbaindia.org/uploaded/pdf/Targets.pdf

India's Report to the Ramsar Convention on Wetlands, a part of its reporting on Inland Waters Biodiversity Program under the CBD, builds heavily on National Wetland Conservation Program and the Wetland Rules (2010). Ironically, though the Ramsar definition of Wetlands includes perennial and seasonal rivers, **India's definition of Wetlands as given in Wetland Rules (2010) excludes Rivers completely from its ambit.** Due to these convenient definitions, rivers find no place in India's work plans or programs.

Last remaining Free flowing Rivers in Western Ghats has no protection Photo: SANDRP

The only mention Rivers get in India's reporting to the CBD is through National River Conservation Program. Firstly, this name of the programme is a misnomer. This programme has the limited mandate of dealing with water pollution, currently on 35 polluted stretches of Indian rivers; it does not look at the issue of adequacy of freshwater flows, biodiversity, livelihoods or any such wider issues concerning Rivers. The programme has been ineffective in tackling even the pollution issues after having started in 1986 with the Ganga Action Plan. It has been criticized by official agency like the Comptroller and Auditor General's Report on Water Pollution (2012) for being 'unsatisfactory' and inherently 'flawed'.

While some countries like South Africa are working on dedicated, participatory programs to protect endangered rivers, India's Plan of Work on Protected Areas makes no mention of protecting its biodiversity rich rivers. We have next to no protected rivers or riverine stretches[16]. Only incidental protection rivers get is when they flow through protected areas, but even here, they are exploited by upstream and downstream dams. Laws like the Wildlife Protection Act (1972) that provides protection from such impacts are known for their non-implementation and non-compliance. In reality there are numerous rivers outside terrestrial protected areas which have significant biodiversity and cultural value and need explicit protection[17].

How Dams affect Rivers, biodiversity and livelihoods The freshwater aquatic biodiversity in rivers depend on a number of variables: timing, duration, frequency, amplitude of flows and floods; temperature, nutrient content, concentration of various pollutants and dissolved gases and turbidity of the water in motion; flow pattern, chemistry, quantity and content of sediments; the physical condition, composition of the river bed, plant, animal, fish, insect biodiversity in the water and floodplains[18], to name only a few. ALL of these variables are adversely impacted when a dam, diversion or hydropower project is constructed on the river. In turn, these impacts affect the downstream livelihoods in a major way. This has been well documented by a large number of studies including by the World Commission on Dams, Food and Agriculture Organisation and India's Central Inland Fisheries Research Institute.

[16] Only exceptions are National Chambal Sanctuary, Ken Gharial Sanctuary, Sanjay Gharial Sanctuary, Vikramshila Dolphin Sanctuary, etc., and even these Protected Areas are facing huge water abstraction pressures from upstream and downstream. For example, the Ken Gharial Sanctuary will be destroyed by the proposed Ken Betwa River Link Proposal if it comes up.

[17] http://www.iucn.org/about/work/programmes/species/our_work/about_freshwater/what_we_do_freshwater/western_ghats/

[18] Compiled from p 75-83 of the report of the WCD, 2000.

India's mega dam plans India has the biggest number of large dams under construction with the possible exception of China. Some of the known plans and notable dams under construction, consideration, or cleared by the Government of India's Ministry of Environment and Forests (MoEF), which are set to adversely affect biodiversity and people in a huge way are listed here.

Cascade of over 150 dams planned in biodiversity-rich Arunachal Pradesh and neighbouring states in the North East of India, displacing and adversely affecting almost all the indigenous communities including their livelihoods, cultures and society, forests, rivers, wetlands, adversely affecting protected areas, sacred sites, sacred rivers, threatened biodiversity like Black necked Crane, Bengal Florican, rare and endemic fish species and other biodiversity. Notable amongst these are Dibang, Siang, Lower, Middle and Upper Subansiri, Lower Demwe, Nyamjangchu, to name only a few.

Golden Mahseer, Ramganga River. Photo Courtesy: switttersb.wordpress.com

1750 MW Lower Demwe Project is set to affect Dibru Saikhowa National Park, an Important Bird Area (IBA) and proposed Ramsar site. **780 MW Nyamjangchu project** will affect community conserved areas and last wintering sites of critically endangered Black Necked Crane, which is revered and protected by local tribes. The local people from Tawang and Anjaw district travelled long distances from their area to the National Capital to share their concerns, but the ministers or officials in Delhi had no time for them.

Non destructive options exist for the electricity needs and development of the area, but they are not being considered. Local people have absolutely no say in the planning and decision making of the projects. India's biggest movement against destructive large dams is ongoing in the downstream Assam, but the MoEF does not even have a credible downstream impact assessment for a single project.

Above: Newly discovered *Pangio Ammophilla* from Dakshin Kannada Photo Courtesy: icthy.wordpress.com

Cascade dams on Teesta River and its tributaries in Sikkim state in North East India, are affecting protected areas, sacred sites and sacred rivers of indigenous groups. These notably include **Teesta III to VI Hydroelectric projects, 97 MW Tashiding** HEP on Sacred Rathong Chu River, **Jorethang Loop region sacred to hydroelectric project, projects in Dzongu affecting indigenous communities like** Lepcha and Bhutia. Here the movement by the Affected Citizens of Teesta (ACT) have waged a long movement including fasts for saving their rivers, livelihoods and culturally significant areas.

Cascades of over 300 (some suggest the number of over 600) dams in Upper Ganga basin (Uttarakhand state) on Rivers like Alaknanda, Bhagirathi, Gori Ganga, Pindar etc., and their tributaries, which are affecting aquatic and terrestrial biodiversity[19], local communities, sacred sites, protected areas and world heritage sites. Wildlife Institute of India (WII) has recommended cancelling at least 24 of these projects for protecting terrestrial and aquatic biodiversity of the region. A study has suggested that some of the streams be declared as no go areas for hydropower projects. However, the MoEF is rewarding the critiques of the WII report with membership of statutory bodies, rather than implementing recommendations of the WII report which was commissioned by the ministry itself.

[19] Report of the Wildlife Institute of India on cumulative impacts of Ganga Basin Projects

One such project is the **300 MW Alaknanda Hydroelectric Project** which was denied Forest clearance twice by the statutory Forest Advisory Committee, has a negative recommendation from WII and is affecting World Heritage sites and range of critically endangered animals like Snow Leopard and Brown Bear. However, bypassing all these, the MoEF has given the project its green signal

Cascades of existing, under construction and planned projects on Sutlej, Ravi, Beas, Chenab and Yamuna basins in Himachal Pradesh affecting last stretches of free flowing rivers, high fish diversity and indigenous communities. Similarly large numbers of projects exist, are under construction and planned on Chenab, Jhelum Rivers and tributaries in Jammu and Kashmir. The World Bank and Asian Development Bank are funding some of these projects without looking at the impact of the projects on aquatic biodiversity in any credible way, or addressing the impacts that people suffer.

At least 12 Dams are coming up in biodiversity hotspot of Western Ghats, submerging over 6000 hectares of rich forest and affecting 25000 tribals in Maharashtra, all for water for cities and industries without undertaking any options assessment. Strangely, these projects do not require environment impact assessment, environment management plan, any environment monitoring or clearance, under the strange assumption of the MoEF that projects meant for Urban and industrial water supply become socially and environmentally benign! When we pointed this out to a senior official in the MoEF, we were nonchalantly told, "it must have been a slip of pen"! The slip remains to be corrected years after pointing this out to the MoEF.

200 MW Gundia Hydroelectric Project coming up in especially rich region of Western Ghats in Karnataka State: According to studies, the Gundia River Basin '*harbours nearly 36% plant species, 87% amphibian and 41% fishes endemic to Western Ghats. The presence of four critically endangered and 14 endangered animal species in the region further emphasises the need for conservation of this region on priority as it provides a unique habitat and ecological niche. This study reaffirms hotspot status of Gundia Basin in Central Western Ghats, a repository of biological wealth of rare kind both in its aquatic and terrestrial ecosystems and indicates strongly the need for adoption of holistic eco system management for conservation of particularly the rare and endemic fauna of western Ghats.'*

Gundia Indian Frog, one of the many endemic amphibians of this region, threatened by habitat loss **Photo Courtesy:** Edge of Existence

Here again it is notable that the report of the Western Ghats Ecology Panel, set up by the MoEF has recommended that the project should not be taken up. The MoEF, instead of following recommendations of this panel, actually kept even the report under wraps. The report was made public only after a court order.

Very large number of small hydro projects[20] are existing, planned and under construction in Karnataka (as also in the other states including Himachal Pradesh and Uttarakhand mentioned above), mostly in biodiversity rich Western Ghats region. These projects do not have project level or basin level cumulative impact assessments (not required by law for projects below 25 MW capacity, an assumption that they are environmentally benign is clearly wrong), though they all have adverse impact on aquatic and terrestrial biodiversity as also people depending on these resources. These impacts are not recognised, assessed or addressed, their existence is not even acknowledged.

[20] The projects under 25 MW are called small hydro projects in India and they also do not require any environment impact assessment, environment management plan, environment clearance, environment monitoring or public consultations.

Inter linking of rivers India in fact has plans to link at least 37 big rivers through some 30 river links involving over 75 mega dams, including in Nepal and Bhutan and affecting Bangladesh. These projects would destroy the remaining aquatic biodiversity in these rivers.

UNFCCC's Clean Development Mechanism The United Nation's Framework Convention on Climate Change, through its Clean Development Mechanism provides carbon credits to projects in developing countries, the largest number of these projects happen to the hydropower projects. All hydropower projects have adverse impacts on aquatic biodiversity one way or other. Among the hundreds of hydropower projects from India and elsewhere that have applied for CDM credits (2436 projects globally as on Oct 19, 2012), 545 hydropower projects (globally) have already received the credits as clean projects. We have yet to see a single project that has done credible assessment of its impact on aquatic and related terrestrial biodiversity. Most projects don't do any, nor are they doing any credible mitigation for adverse impacts they are causing. And yet, hundreds of them are being certified as CDM projects, are getting credits. What this means is that a United Nations organisation is actually incentivising destruction of biodiversity that another United Nations organisation (CBD) is supposed to protect and conserve. And the CBD is doing nothing in our knowledge to stop this incentivising of biodiversity destruction.

Dried up Sutlej downstream Nathpa Jhakri Dam in Himachal Pradesh *Photo: SANDRP partners*

Place for biodiversity, for impact on livelihoods and for people in decision making The impact of dams on riverine biodiversity is supposed to be assessed as part of the Environment Impact Assessment under India's EIA notification of Sept 2006. Firstly, there is no explicit requirement of Biodiversity Impact Assessment under this or any other law. Secondly, this excludes a very large number of projects that affect aquatic biodiversity, some of them are mentioned above. Thirdly, these are all project level impact assessments, each river has multiple dams, diversions and hydropower projects and there is no legal requirement for a cumulative impact assessment. Fourthly, all EIAs limit impact assessment within the artificial radius of 7 km, when the biodiversity impacts are likely to go much farther both upstream and downstream. Fifthly, the baseline assessments are not required for survey all round the year, with full details of such survey being given in the EIA reports. Sixthly, even the impact assessment that has been done is most inadequate, many times they are known to be dishonest, cut and paste jobs. The assessment of impacts on aquatic biodiversity rarely go beyond names of some fish species, and almost never even list the aquatic plants, insects, birds, animals and so on. We have yet to see what can be called a satisfactory downstream impact assessment for a dam. It is this limited impact assessment that is the basis for public consultation process for the affected community.

Indigenous Communities protest against dams in sacred sites. ***Photo****: Weepingsikkim.blogspot.com*

Even this impact assessment is not available in the language and manner that the local people can understand. Lastly, but most importantly, downstream affected communities are not even considered project affected, nor are there any compensatory measures for the impacts they suffer. In this context, to talk about benefit sharing sounds like a cruel joke.

Side Event at the CBD on Impacts of Dams on biodiversity:
Socio Ecological Dimensions in the context of Climate Change

On 8th Oct 2012, opening day of the CBD CoP 11, SANDRP and Partner Organisations [Himdhara (Himachal Pradesh), Himal Prakriti (Uttarakhand), Samvardhan (Maharashtra), River Basin Organisation (Assam) and International Rivers (India)] organised a side event to highlight the immense impacts of Dams on Riverine and Costal Biodiversity, indigenous groups, livelihoods and a range of goods and services provided by rivers and estuaries. The event was attended by over 60 individuals from India and abroad who supported the recommendations put forth for CBD and Indian Govt. at the end of the event.

Parineeta Dandekar, SANDRP opened the session with an introduction to impacts of large dams on riverine biodiversity and livelihoods and the ineffectiveness of CBD and Indian Government in trying to address these. Dr. Nilesh Heda from Samvardhan, Vidarbha talked about impacts of dams on fish diversity, fisher folk communities, traditional conservation practises and the need to build riverine governance through communities and not the other way round. Nachiket Kelkar from NCF talked about impacts of dams on biodiversity in Ganga, especially indigenous fisheries and dependant livelihoods, stressing on the need for targeted riverine protected areas, through community participation. Prakash Bhandari from Himadhara, Himachal Pradesh shared the terrible impacts of hydroelectric dams on terrestrial biodiversity and livelihoods in Himachal Pradesh and the near-total absence of any participatory Environmental Governance.

Ashish Kothari from Kalpavriksh responded on how CBD can possibly be used in this context, stressing ecosystem approach highlighted by COP V and using the Akwe Kon guidelines. He raised basic questions about power and stressed that the GDP-driven development model of India is leading to huge negative impacts on all other aspects. Himanshu Thakkar, SANDRP summed up the session, highlighting the failure of CBD in being effective in any way for India's rivers. He also brought out the irony of one UN agency protecting biodiversity (CBD) while the other, through UNFCCC's CDM mechanism actually incentivising destruction and pollution. He put forth following recommendations which were supported by over 60 participants from various countries.

Sadly, officials from MoEF and Central Inland Fisheries Research Institute (CIFRI) did not attend or take part in the discussions despite confirming their presence earlier. Officials from National Biodiversity Authority were also invited but did not attend the event.

How climate change will, *is* worsening the situation It has been well established now that Glaciers are melting at an accelerated rate in the Himalayan region. Secondly, the monsoon rainfall patterns are also changing. The third major impact already being experienced is the sea level rise in the coastal areas. All these three factors have major impact on the pattern of flows in the rivers and consequently on the aquatic biodiversity and livelihoods. In this context, the increasing number of large dams that are constructed, are under construction or planned are only adding and multiplying

these impacts. What is disturbing is that many of such projects are being pushed as climate friendly projects! They are certainly not friendly for the people who are dependent on the rivers, but they have no voice in these projects.

As India hosted the CBD COP 11 in the United Nations Decade of Biodiversity (UNDB) 2010-2020[21], India is expected to lead the key global agenda item on biodiversity between 2012-2014, the first half UNDB. (A look at the strategic plan for this decade from UN[22] shows that the plan does not explicitly mention anything about aquatic biodiversity, and we hope that this won't be forgotten.) Through this key leadership role, we urge Indian Government to focus on its invaluable freshwater biodiversity through its rivers, implement CBD Program on Inland Waters Diversity, especially decisions taken in COP 10, COP 7, COP 4, Aichi Protocol on Biodiversity and Akwe Kon Voluntary guidelines for the conduct of cultural, environmental and social impact assessments regarding developments impacting on, sacred sites and on lands and waters traditionally occupied by indigenous and local communities.

An abridged version of this report and its recommendations was circulated as a statement and has been endorsed by over 17 organisations and individuals working specifically on biodiversity and water management in India. The endorsed letter can be found at: http://sandrp.in/rivers/PR_Impact_of_Dams_on_Rivers_CAN_CBD_HELP_Oct_12_2012.pdf

We urge the Indian Government specifically:

- To urgently review plans mentioned above about the dams and projects that adversely affect aquatic biodiversity and livelihoods, conduct a thorough socio-cultural-ecological assessment as outlined in the Akwe Kon Guidelines, to include concerns about massive biodiversity loss and impacts on the indigenous communities.
- To amend the EIA notification such that all large dams, all hydro projects over 1 MW capacity and also projects impacting aquatic biodiversity require Impact assessment[23], mitigation plans and environment clearance, all in consultation with local people. Project proposals should be asked to include aquatic impacts, mitigation plans and compensatory measures. The Impact assessments should also include the impact of the projects on Ramsar and other wetlands as also flood plains.
- To urgently come out with a policy and law for protection of rivers.
- To include Rivers in Wetlands Rules (2010) and declare specific protected rivers as no go zones in each state and ecological zone and, as per the Aichi Protocol, to slow down rapid biodiversity loss.
- To formally protect rivers which are socially and culturally important and sacred to indigenous communities, while not impinging upon community rights over their rivers.
- To urgently protect last remaining free flowing rivers in the country in their free flowing, undammed state, particularly in North East India, Himalayan states, Western and Eastern Ghats.
- Provide legal protection to community conserved river stretches.
- To stop certifying CDM hydro projects as 'sustainable development projects' without impact assessment and mandatory participatory process that requires prior, informed, consent from the gram sabhas.
- To improve reporting to the CBD to include dedicated Program on Work on Rivers, aquatic biodiversity and communities who depend on them.

One of the targets we agreed to in Nagoya is for countries to reform their economic instruments that negatively impact biodiversity and ecosystems... Unfortunately, policies and economic instruments globally are still promoting 'business as usual' models that do not enable sustainability... The CBD recognises that we could

[21] www.cbd.int/2011-2020/
[22] http://www.cbd.int/doc/strategic-plan/UN-Decade-Biodiversity.pdf
[23] A statement in this context by the Indian Environment (see: http://www.thehindu.com/sci-tech/energy-and-environment/biodiversity-norms-for-green-clearances-coming-says-environment-minister/article3946502.ece) will have little credibility, looking at her track record, until we see some evidence of implementation.

also have community-governed protected areas that are fully recognised and financially supported by national governments... Namibia has already executed 70 such formal 'conservancy' agreements with local communities. Bolivia, Australia, Brazil and Mexico, too, have success stories.

BRAULIO FERREIRA DE SOUZA DIAS, executive secretary of the CBD[24]

We urge the CBD to:

- Coordinate with UNFCCC to ensure that current incentivising of destruction of aquatic biodiversity is addressed and halted
- Make clearly defined norms for participation of communities and effectively achieving the community sovereignty over biodiversity and not just national sovereignty that is the norm now.
- Make clearly defined norms for Free, Prior, Informed Consent of the Community before any decision is taken that affects their access to biodiversity resources.
- Come out with best practices studies that show how protection of aquatic biodiversity is necessary, possible and essential without sacrificing meeting of essential development needs of the people.
- Monitor India's reports for work on rivers and dependent communities.
- Strengthen its reporting framework on Inland Waters Biodiversity.

Currently the CBD fails to influence any aspect of India's decision making and management of its rivers which is proving fatal to biodiversity and livelihoods. We hope this will change for better before it is too late.

Biodiversity-rich Kumaradhara River in Western Ghats. This site is proposed to be dammed **Photo: SANDRP**

IUCN Red List of Ecosystems IUCN has been working on Red List of Species, which has received global acceptance and is considered while making management decisions. Due to a number of problems, despite decades of effort, by 2010 only 55,926 of the 1,727,708 known species of the world (< 3%) had been evaluated for the IUCN Red List of Threatened Species.

However, it is widely accepted that for meaningful conservation planning, ecosystem status may be better than individual species' status as an indicator of biodiversity as a whole. Society often perceives the problems of biodiversity loss most acutely not at the species level but at the ecosystem level, through the loss of services such as clean water, food, timber, fuel and recreation. IUCN has initiated a process of identifying Threatened Ecosystems of the World.

River Lohit at Parshuram Kund in Arunachal Pradesh: A lesser studied, biodiversity-rich riverine ecosystem

This is an opportunity of highlighting the highly endangered status of rivers and other related ecosystems. IUCN has invited researchers to share their work and suggest most threatened ecosystems, in need of protection[25].

Researchers from South Asia need to highlight the threatened status of our rivers, their biodiversity and social value and advocate for their protection through the Red List ecosystems Framework.

[24] http://www.ipsnews.net/2012/10/qa-mismatch-between-commitments-and-action-on-biodiversity/
[25] http://www.iucnredlistofecosystems.org/get-involved/