

# Dams, Rivers & People

Working for water resources development as if democracy, people and environment matter

Vol 12 | Issue 10-11 | November-December, 2014

## Index

1. Violations in Ken Betwa EIA and Public Hearing	1
2. First India Rivers Week Successfully Concluded	7
3. Lessons from Farakka	8
4. Can Marathwada afford to undertake sugarcane crushing?	16
5. Critique of HLC Report on Review of Environment Laws	19
6. HLC Report: A Climate Blind Assessment	24
7. Celebrating Koel Karo Resistance	26
8. Dr. Latha Anantha, CPSs and RRC: For the rivers to flow	29
9. Headwater Extinctions – Impacts of hydropower projects on fish and river ecosystems	32

## Contact :

Himanshu Thakkar,  
Parineeta Dandekar,  
Amruta Pradhan,  
Sabita Kaushal,  
Ganesh Gaud  
Dams, Rivers and People  
C/o 86-D, AD Block,  
Shalimar Bagh  
Delhi - 100 088, India.  
Ph: + 91 11 2748 4654/5  
ht.sandrp@gmail.com  
<http://sandrp.wordpress.com/>,  
[www.facebook.com/sandrp.in](http://www.facebook.com/sandrp.in),  
<http://sandrp.in>

## Violations in Ken Betwa EIA and Public Hearing Process: Sign of times to come?

Ken Betwa River link in Madhya Pradesh is one of the most discussed links of the ILR (Interlinking of Rivers) Project, which is being relentlessly pushed by the government and Water Resources Minister Sushri Uma Bharti. A look at the public hearing notice, related statutory activities and a perusal of the Executive Summary of the EIA of this link underlines the shaky grounds on which the project is being pushed. The project does not fulfil its ecologi-

(KBRLP) are to be held on Dec 23 and 27, 2014 at Siron in Chhattarpur and Hinouta in Panna districts of Madhya Pradesh. As we see below, these public hearings violate fundamental legal norms in letter and spirit and should be cancelled and not held till these violations are rectified.

EIA (Environment Impact Assessment) notification of September 2006 clearly states that project EIA and EMP (Environment Management

*Public Hearing of the Ken Betwa Link project, the first and the most discussed links of the ILR project, is to be held in Madhya Pradesh in the end of December. Environmental Governance of this project should have been exemplary; looking at the attention ILR is receiving from the Centre.*

*However, a perusal of the EIA and public hearing process reveals startling facts: The full EIA is not available on Madhya Pradesh Pollution Control Board Website, Hindi EIA has too many errors to be useful, Executive Summary is hidden on the website, the project does not have a valid, there are NO special conditions for this first link of the ILR project, the EIA does not mention impact on either Panna Tiger Reserve or the Ken Ghariyal Sanctuary.*

*A very sad indication of how environmental governance of ILR project will be...*

cal, technical, hydrological, legal, social obligations, as is clear from the discussion below. If this is any precursor of the further ILR projects, then it is a sad commentary on the nature of ILR scheme as a whole.

## Illegal Public Hearing

The public hearings required for the Ken Betwa River linking project

Plan) should be put up on the website of the Pollution Control Board a month before the actual public hearing. However, a perusal of the MPPCB website (<http://www.mppcb.nic.in/>) shows that the full EIA and EMP are still not uploaded on the website. When I talked with the concerned officers of the MPPCB, they confirmed that full

EIA-EMP reports have NOT been uploaded on the MPPCB website.

Even the executive summary of EIA-EMP Report on the website is put up in such an obscure fashion that it is not possible for any common person to locate it. So I called up the phone number given on the MPPCB website. I was then told that I should call another number to talk to Mr Kuswaha about this. When I called Mr Kuswaha, he directed me to call Mr. Manoj Kumar. Mr. Manoj Kumar was already home at 5.15 pm and told me that I should call him at 12 noon next day. He confessed that even the executive summaries were not available on the website about 15 days ago! When I called him next day he told me the elaborate process 'public' is supposed to know in order to access the Executive Summary: One needs to click on "Public Hearing" tab nested under EIA notification, leading to a page with a table of various lists entitled List I, List II, List III and List IV etc, Check List IV, click on project no 594 in a list of projects from 469 to 601. This Project Number 594 is the Ken Betwa Project!

To top it, there is no mention of the dates of Public Hearing in this description (the dates were later added after we published the blog on this subject)!

I also called up Dr. R K Jain at MPPCB regional office in Sagar, under whose jurisdiction Chhattarpur and Panna come, to ask about the availability of the full EIA and EMP in soft copies. He agreed that these are not available on the website and also said that he cannot do anything about the obscure location of the Executive Summary as this is happening from Bhopal.

In any case non-display of the public hearing date and executive summary in Hindi and English in easily searchable form is another violation of the EIA notification.

When we go through the Executive summaries in English and Hindi, we see that both are incomplete in many fundamental ways. The Hindi executive summary [1] has completely wrong translations. I could find nine gross translation errors in just first 16 paragraphs and is of little use for anyone seeking information on or understating impacts of the project.

The Ken Betwa Link project is a joint project between Uttar Pradesh (UP) and Madhya Pradesh (MP), about half of the benefits and downstream impacts in Ken and

Betwa basins are to be faced by Uttar Pradesh, but the public hearings are not being conducted in UP at all, the proposed public hearing is only in MP! Even within MP, the link canals will pass through and thus affect people in Tikamgarh district, but the public hearing is not being held in Tikamgarh district either.

The project had applied for Terms of Reference Clearance (TORC) and the same was discussed in the meeting of Expert Appraisal Committee (EAC) on River Valley Projects of Union Ministry of Environment, Forests & Climate Change (MoEF&CC) on Dec 20, 2010. However the public hearing is being held more than four years after EAC recommended the TORC and that is way beyond the normal term of two years for which TORC is valid or the extended TORC of four years. The public hearing, being conducted without valid TORC is not valid under EIA notification and hence there is no legal validity of this public hearing.

Shockingly, EIA done by the Agriculture Finance Corporation of India was already completed when the project applied for TORC, so the baseline data in current EIA is more than 5 years old. I know this for a fact since copies of their (most shoddy) EIA were made available in Nov

2009 itself to the members of the Expert Committee on Inter Linking of Rivers set up by the Union Ministry of Water Resources. I having been a member of the committee had critiqued the shoddy EIA in April 2010 and this was also discussed in one of the meetings where the AFC EIA consultants were called and had no an-

swer to the questions. This is again in complete violation of the EIA norms.

In a strange development, MoEF&CC issued TORC letter for the project on Sept 15, 2014, following a letter from National Water Development Agency dated 18.06.2014. This MoEF&CC letter is issued in violation of the EIA notification. According to the EIA Notification, the ministry could have either issued the TORC within 60 days of Dec 20, 2010 or the TORC would be deemed to have been given on 61st day or Feb 19, 2011. However, issuing the letter almost four years after the EAC meeting and that too without mentioning the deemed clearance is in violation of the EIA notification.

The TORC letter on MoEF&CC website is also incomplete as it does not mention the Terms of Reference at all! They are supposedly in the Annexure 1 mentioned in the TORC, but the letter on MoEF&CC site does not

---

*Finding the EIA on MPPCB Website is no mean feat and there is no way that interested public or affected stakeholder can access it. But the regional officer in charge says he does not have time for such questions.*

---

*The EIA uses baseline data that is more than five years old. Although affecting Uttar Pradesh, no public hearings will be held in UP or other MP districts when they too are affected.*

---



Panna Tiger Reserve **Photo:** WWF India

(National Board of Wild Life) Standing Committee meeting of Sept 14, 2006 **allowed only survey and investigation and NOT preconstruction activity.** Such activities inside protected areas cannot be allowed without Supreme Court clearance. It is thus clear that Sept 15, 2014 letter of MoEF&CC for Ken Betwa link is also without authority.

### **Review of the EIA conducted by Agriculture Finance Corporation of India**

The Environmental Impact Assessment (EIA) of Ken Betwa Riverlink project used for the public hearing to be held on Dec 23 (Silon village in Chhatarpur district) and Dec 27 (Hinouta village in Panna district), 2014 in Madhya Pradesh is, as can be

seen from the details below, unscientific, incomplete, inadequate, biased, inconsistent (self-contradictory), callous, making unwarranted conclusions/ assumptions, it accepts government claims uncritically and is generally a shoddy piece of work.

Agriculture Finance Corporation of India (now AFC Ltd) was commissioned in 2007 itself to conduct Environmental Impact Assessment (EIA) of Ken Betwa Riverlink proposal. This was even before National Water Development Agency (NWDA),

a society of Government of India created in 1981-82 exclusively for studies on River Linking proposals) applied for the Terms of Reference Clearance for the EIA for this project in December 2010.

This review of the EIA of Ken Betwa project is based on the Executive Summary (English) of the EIA made available

on the Madhya Pradesh Pollution Control Board (MPPCB) website in Dec 2014 before the statutory public hearing. The comments given below under each heading are only indicative to establish what is contended about the EIA here and not exhaustive.

**Biased EIA** In the very second paragraph of the EIA Executive summary [3], it is stated, referring to NWDA studies, “These studies established that Betwa is a water short basin”. In order to be an unbiased and objec-

include Annexure 1. When I asked Dr. B. B. Barman, Director of MoEF&CC and who has signed the TORC letter, he said that the project **has been given standard TORs for any River Valley Project.** But Dr. Barman forgot that the MoEF&CC was giving the TORC letter for the first ever interlinking of rivers project and the TOR for this unprecedented project CANNOT be same as any other River Valley Project. The TORC letter is invalid also from this aspect.

The MoEF&CC letter of Sept 15, 2014 is without mandate for another reason. The letter says “Based on the recommendations of the EAC, the Ministry of Environment & Forests hereby accords clearance for pre-construction activities at the proposed site as per the provisions of the Environmental Impact Assessment Notification, 2006 and its subsequent amendment, 2009”.

However, MoEF&CC seems to have forgotten here that **the Daudhan dam site and most of the reservoir is inside the Panna Tiger reserve, a protected area!** Perusal of the minutes of the 45<sup>th</sup> EAC meeting held on Dec 20-21, 2010 shows that EAC did not recommend preconstruction activity and the EIA division of the MoEF&CC has no authority to allow pre construction activities inside the protected areas. Even the NBWL

---

*The Ken Betwa EIA is replete with gross errors, is biased, misrepresents facts, shows ecological illiteracy and non-seriousness. The EIA is conducted by Agriculture Finance Corporation of India (AFCL now) whose core subject is Agriculture Finance, not conducting EIAs. The Agency has been conducting many such shoddy EIAs and needs strong discouragement from working further on such specialized issues, with implications for vulnerable communities and ecosystems.*

---



tive study, EIA is not supposed to uncritically accept such assertions or assumption of the developer, but to assess these claims.

**Incomplete EIA** The EIA executive summary does not include a project layout map or sections like biodiversity impact assessment, impact of destruction of substantial part of Panna Tiger Reserve, surrounding forests and livelihoods of the people dependent there on, options assessment, hydrological viability assessment, disaster potential assessment, assessment of how the project will be impacted by destruction of forests and climate change, additional greenhouse gas emissions due to the project and downstream impacts, impact of mining of materials required for the project, stability of the rim of the reservoir and banks in the downstream and how the project will affect these, to name only a few serious inadequacies of the EIA.

### **EIA makes wrong claims**

The EIA claims in very second paragraph: “The scope of EIA studies inter-alia does not include water balance studies.” This is a wrong claim since water balance study of the Ken

Betwa link establishes the hydrological viability of the project and by not going into the water balance study, the EIA has failed to establish hydrological viability of the project. SANDRP analysis in 2005[4] of the NWDA feasibility study of Ken Betwa Proposal [5] had established that **the hydrological balance study of the Link Project is flawed and an exercise in manipulation to show that Ken has surplus water and Betwa is deficit.**

As the collector of Panna district noted in 2005 itself [6], if the 19633 sq km catchment of the Ken river upstream of the proposed Daudhan dam (comprising areas of eight districts: Panna, Chhatarpur, Sagar, Damoh, Satna, Narsinghpur, Katni, and Raisen) were to use the local water options optimally, then there will not be any surplus seen in Ken river at the Daudhan dam site and by going ahead with the Ken Betwa Link without exhausting the water use potential of Ken catchment, which is predominantly a tribal area, the government is planning to keep this area permanently backward. But the EIA of Ken Betwa link does not go into this issue, making the whole exercise incomplete.

**Ken Betwa project destroys Panna Tiger Reserve but EIA claims project may benefit PTR!** The Ken Betwa Project, as per the EIA, will submerge 4141 ha of

Panna Tiger Park reserve, but the EIA Ex Summary says (para 58), “the reservoir may prevent encroachments of the park and invasion by livestock so that a relatively more secure and compact habitat is formed on Right flank of Daudhan dam which may be beneficial.”

In Para 63, the EIA executive summary goes on to claim that the project will not decrease tourists flow (due to destruction of Panna Tiger Reserve or drying of waterfalls in the downstream), but in fact increase tourist inflow because of the creation of reservoir! No word about the destruction of river!

**Absence of credible submergence figures** The EIA has hugely reduced the area to be affected in Panna Tiger Reserve and in the surrounding forests compared to

---

*The EIA states that the region has no endangered aquatic biodiversity, when Ken has at least 13 endangered and vulnerable fish species. The EIA glosses over submergence of over 4141 hectares of Panna Tiger Reserve and contends that the project may actually be beneficial for the Reserve by making habitat “compact”. It also states that the link will give “shortcut” route for fish migration. All these claims cement the ecological illiteracy and bias of the EIA agency.*

---

the figures given in the Feasibility report of the project, without any explanation. Well known conservation expert Kishore Rithe, in his article in December 2014 issue of Sanctuary Asia Magazine has raised doubts about these figures and has suggested that much larger area will be destroyed by the project than what is stated in the EIA. He has

also said that the EIA does not take into account the biodiversity that will be destroyed in the forest because of the project. Using strong (& justified) words, he has said **this is assassination of wildlife, to help the contractors.**

### **EIA LIES on Biodiversity: Endangered and vulnerable species in Ken Basin find no mention in EIA**

Para 59 of the Ex Summary of EIA is about Aquatic Environment and it says: *None of the species of aquatic plants come either under rare or endangered or endemic or threatened categories (REET).* This is a shocking lie, since the following paper by Dr. K.D Joshi and B.K. Biswas of CIFRI (Central Inland Fisheries Research Institute) says that the **Ken has at least 4 endangered and 9 vulnerable species.** The EIA also keeps mum about the **existence of Ken Ghariyal Sanctuary** in the downstream area, which will be destroyed due to the project.

CIFRI paper of 2010 said there are 4 endangered and 9 vulnerable fish species in Ken River According to a paper by Dr. K. D. Joshi and B. K. Biswas published in Journal of Inland Fisheries Society of India (42(2): 25-31, 2010) titled Piscine Diversity and Fisheries in the River Ken, proposed for the Inter-River Linking, “53 fish species classified under 40 genera, 19 families and 7 or-

ders. Out of these, 51 species are native and 2 exotic. The river comprises some highly important threatened species including 4 endangered and 9 vulnerable species... The fish species available in the river have immense economic importance”.

**Endangered** species include: *Tor tor* (Mahseer), *Chitala chitala*, *Eutropiichthys vacha*, *Ompok pabda*.

**Vulnerable** species: 1 *Goniaiosa manmina* 2 *Catla catla* 3 *Puntius sarana sarana* 4. *Rhinomugil corsula* 5. *Mystus bleekeri* 6. *Clarias batrachus* 7. *Heteropneustes fossilis* 8. *Clupisoma garua* 9. *Bagarius bagarius*

The paper concludes that the proposed Ken Betwa link project will have “Deleterious impacts on piscine diversity and fishery may occur downstream to the Daudhan dam site in the river Ken, as a result of the depletion in breeding and feeding grounds and hiding sites of the fishes. This could be due to reduction in flow as a result of diversion of the water to the Ken-Betwa link.” The EIA does not mention this.

**GEM of the EIA: Project canals help fish migration and will provide a ‘short cut’ for fish!** This is indeed a GEM from the EIA executive summary. In para

illiteracy of the EIA consultants. This para not only shows how poor is their understanding of fish, rivers and ecosystems, it also shows by AFCL should be black-listed from doing any EIAs.

**RESERVOIRS HELP REDUCE POLLUTION!** In para 61 the EIA Ex Summary says: “*Stagnated body can get rid of their pollutants by sedimentation while lotic body carries its load of pollutants downwards.*” This narration of advantages of stored water as against flowing river clearly seems like a prescription that it is better to dam the river to reduce pollution! Another example ecological illiteracy of the EIA consultants.

**Incomplete EMP The Environment Management Plan (EMP)** in the EIA ex summary starting from para 66 is incomplete: It does not include environment flow assessment, muck disposal plan, compensatory afforestation plan, Compensatory land allocation for destruction of Panna Tiger Reserve, habitat improvement plan for the balance part of PTR, REET species plan mentioned in para 70(c) at cost of Rs 10 crores, upstream (of Daudhan Dam) water development impacts/ management plan, downstream impacts management, treatment of area used for mining of the materials, to mention only a few.

**Outdated R&R Plan norms** As stated in Paras 76 onwards, R&R (Resettlement and Rehabilitation) plan has been prepared based on norms of National R&R Policy of 2007 and MP R&R policy of 2002, but both are outdated in Dec 2014 where the applicable norms are based on *The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act*, 2013. Thus the R&R plan is completely outdated and will need fresh assessment starting from Social Impact Assessment. The EIA has no mention of settlement of rights under Forest Rights Act. Thus the social impact and R&R section is outdated, incomplete and under estimated and hence unacceptable.

**Fundamental contradictions in R&R figures** Para 80 of EIA ex Summary says that 1585 families will be affected by the Daudhan Reservoir. In next para, this becomes population of 1585! Two paras latter, in para 83, the population affected by the reservoir becomes 7224! In para 92 the EIA executive summary says: “Therefore it is only 806 project affected families and there are no other affected families in the project affected villages.” This not only shows contradictions but absolute callousness of the EIA agency. In the Feasibil-



Ghariyal (Long snouted Crocodile) in Ken River **Photo:** WWF India

59 the EIA executive summary says: “*Interlinking of these basins through link canal will facilitate rapid migration of the fish easier... The fish has a tendency to migrate upstream. The inter linking of rivers provide another route for fish migration from Yamuna to Betwa and ultimately from Betwa to Ken. Further, the distance from Duadhan dam to the place of confluence of Ken with Yamuna is longer as compared to the distance from the place of confluence of Betwa with Yamuna and Daudhan dam through link canal. Thus, this route will facilitate rapid migration of fish.*” This shows shocking ecological

ity report, the population affected was mentioned as 8550 as per 1991 census, but the 2014 EMP says the population affected has gone down when the height of the dam and submergence area has gone up! This is another evidence of callous underestimation of the social impacts.

**EIA says minimum agriculture wage is Rs 64/-!** In para 94 the EIA executive summary says all the entitlement has been assessed based on agriculture wage rate or Rs 64/- of 2006-07! This is when the minimum agricultural wage rates for unskilled labourers w.e.f. 01.04.2014 is Rs 193[7], more than three times the rate assumed by EIA agency!

**Joke of Land for Land by providing 5% of acquired land** Para 96 of EIA Ex summary says that total of 6423 ha of revenue land is acquired and it is proposed to provide land for land to ST and SC families. Then it says for this purpose, a total of 358 ha of land will be required! This comes to 5.57% of acquired land and the EIA consultant says this is sufficient for providing land for land! This is clearly a cruel joke on the ST and SC families and shows how great an impoverishment programme this project is.

**Social & Environmental impacts of backwater effect not assessed** Para 67(c) says that 956 ha of land will be affected due to back water impact, but there is no social and environmental impact assessment of the back water impacts.

**Contradictions in EMP** Para 59 says there are no REET species, and para 70(c) provides Rs 10 crores for REET species plan! Para 70(a) says fisheries production from reservoir will be 470 MT / year and para 70(e) says the same will be 60 tons! In para 70(a) the EMP says the reservoir fisheries will provide livelihood for 500 families and also that there will be sport licensing.

### Questions over choice of AFCL for Ken Betwa EIA

The Ken Betwa EIA work has been given to Agriculture Finance Corporation Ltd. (now AFC Ltd – <http://afcindia.org.in/>). Firstly, the basic mandate of this corporation is Agriculture Finance, and as we all know agriculture finance is in bad shape in India, one of the major reasons for the agrarian crisis. Instead of focusing on its core area, this corporation has been majorly working on preparation of Environment Impact Assessment related work. Why should the government encourage such non-core work by AFCL, [AFCL is itself is a quasi-government body, it being owned by NABARD and EXIM bank]? Secondly, the track record of AFCL in EIA related work is quite bad. Some of the recent EIAs of AFCL that has invited adverse remarks include the EIA of Polavaram Multipurpose project (also one of the ILR links), Tipaimukh project in Manipur, Kameng Hydropower project in Arunachal Pradesh and Thoubal irrigation project in Manipur. In case of Tipaimukh and Polavaram EIAs, even some of the official agencies have found their EIAs to be wanting.

**CONCLUSION** This analysis clearly shows that the EIA consultant does not have basic understanding of ecological issues related to rivers or river valley projects, ground situation in project area or laws of India. This EIA is clearly unacceptable and should be rejected. The EIA should be re-commissioned to a credible EIA agency. Appropriate steps should be taken against the current EIA consultants. The public hearing planned on Dec 23 and 27, 2014 should be cancelled as there is no basis for conducting an informed public consultation. This EIA and also the public hearing conducted based on this EIA will not stand public, scientific, social or legal scrutiny.

**Himanshu Thakkar,**  
SANDRP ([ht.sandrp@gmail.com](mailto:ht.sandrp@gmail.com))

[1] <http://www.mppcb.nic.in/pdf/594-hindi.pdf>

[2] <http://www.mppcb.nic.in/pdf/594-English.pdf>

[3] Ken Betwa Link: Why it won't click: <http://sandrp.in/riverlinking/knbtwalink.pdf>, a Hindi translation is also available, write to SANDRP for the same.

[4] <http://nwda.gov.in/index4.asp?ssslid=35&subsubsublinkid=22&langid=1>

[5] [http://en.wikipedia.org/wiki/Ken\\_River](http://en.wikipedia.org/wiki/Ken_River)

[6] <http://www.hindustantimes.com/india-news/madhyapradesh/mp-pays-the-price-but-up-to-corner-benefits-of-river-linking-project/article1-1261741.aspx>

[7] <http://nwda.gov.in/index2.asp?slid=280&sublinkid=91&langid=1>

[8] [http://sandrp.in/riverlinking/Why\\_Ken\\_Betwa%20EIA\\_is\\_unacceptable\\_April\\_2010.pdf](http://sandrp.in/riverlinking/Why_Ken_Betwa%20EIA_is_unacceptable_April_2010.pdf), also see AFC ltd website mentioning that they got the work for doing EIA for Ken Betwa project in 2009 itself: [http://afcindia.org.in/ecology\\_impact2.html](http://afcindia.org.in/ecology_impact2.html)

[9] <http://en.wikipedia.org/wiki/Arsenate>, accessed on March 5, 2010

[10] <http://sandrp.wordpress.com/2014/12/20/violations-in-ken-betwa-riverlink-public-hearings-in-last-week-of-2014/>

[11] <http://sandrp.in/riverlinking/knbtwalink.pdf>

[12] <http://clc.gov.in/estb/pdf/miniwage2.pdf>



## First India Rivers Week Successfully Concluded

SANDRP was very happy to be associated with the first India Rivers Week which was organized between 24-27 of November 2014 in New Delhi. The event, first of its kind, was aimed at bringing together diverse actors involved in protection and conservation of our rivers and to deliberate upon the main threats to Rivers, as well as the way forward. The meet, aimed at activists, community groups, researchers, government bodies, etc., was jointly organized by WWF India, INTACH, SANDRP, Toxics Link and PEACE Institute Charitable Trust and saw enthusiastic participation of over 150 participants from all over the country. IRW was supported by Arghyam (Bengaluru), International Rivers (Mumbai office), and Peoples Science Institute, Dehradun. Sri Ramaswamy R. Iyer, former Secretary, Ministry of Water Resources and a leading expert on rivers in the country chaired the organizing committee.

Theme of the Week was “Rivers in Crisis” and four days of deliberations saw intense discussions in the groups on topics ranging from dangers of interlinking rivers, to river restoration to legal framework for river protection to dam decommissioning. Some of the most fruitful and engaging discussions surrounded basic question like ‘What is a river?’ or ‘How do you define a river?’

The Conference was inaugurated by a keynote delivered by Shri Ramaswamy Iyer, while Shri Jairam Ramesh,

former Union Minister of Environment and Forest & Rural Development was the chief guest at the inaugural session.

The IRW also saw the establishment of Bhagirath Prayas Samman: Recognition of Herculean Efforts towards saving Rivers. The First Bhagirath Prayas Samman were presented to three initiatives: one organizational and two individual. The Koel Karo Jan Sangathan, Dr. Latha Anantha and Akhil Gogoi were the first recipients of the award at the hands of Justice Madan Lokur, Hon’ble Judge, Supreme Court of India. This DRP carries introductions on the two of the awardees.

Sushri Uma Bharti, Minister for Water Resources, delivered the valedictory address in which she stressed the centrality of eflows and committed before the gathering that government will not undertake Interlinking of rivers if the ecological impacts of the project are negative.

The India Rivers Week will come out shortly with a Delhi Declaration on Rivers which will not only reflect the deliberations, but also the way forward for governance and sustainable management of our rivers. We hope that this IRW is the first in the list of more such IRWs as there is need to celebrate our rivers as well as the efforts that safeguard them.



## Lessons from Farakka as government plans more barrages on Ganga

**Introduction** “When Farakka barrage was built, the engineers did not plan for such massive silt. But it has become one of the biggest problems of the barrage now” said Dr. P.K. Parua<sup>1</sup>. And he should know as he has been associated with the barrage for nearly 38 years and retired as the General Manager of Farakka Barrage Project (FBP). I remembered the vast island of silt in the middle of the river barely a kilometer upstream of the Barrage and the people who told us their homes were devastated by the swinging river.

Though called a barrage, Farakka Barrage is a large dam as per ICOLD, WCD and CWC definitions, with associated large dimensions and impacts. To call it a Barrage is misleading.

Commissioned in 1975<sup>2</sup> across Ganga in Murshidabad District of West Bengal and just 16 kms upstream of the Bangladesh Border, Farakka Barrage has been mired in controversies from the very beginning. Its role is singular: to transfer 40,000 cusecs water from Ganga to its distributary Bhagirathi-Hooghly (hence forth referred as Hooghly). And to make Hooghly river navigable from Kolkata port upstream till Farakka barrage. It was thought that this water will push the silt that is eating up the Kolkata Port and will protect the Port for navigation and economy. In reality, Kolkata Port continues to decay and the barrage has had such severe and unforeseen impacts on the people of India and Bangladesh that the call to review Farakka Barrage entirely is getting louder by the day.

**Ganga as a “Waterway”** Government of India is planning to aggressively develop 1620 kilometers of National River Ganga as “National Waterway 1” (NW1)<sup>3</sup>. There is a profound difference between a Highway and Waterway. A highway is simply a road while NW1 is actually River Ganga, performing several other functions, it is

important to recognise how the NW1 would affect these functions and the river itself. NW 1 spans from Haldia, near the mouth of Ganga Estuary in West Bengal, to Allahabad in Uttar Pradesh, passing through four states and cities of Haldia, Howrah, Kolkata, Bhagalpur, Buxar, Patna, Ghazipur, Varanasi and Allahabad.

Although this plan was on paper for some years, the new government has approached the World Bank for support of nearly Rs 4200 Crores (700 million dollar) for its implementation. In July 2014, the World Bank agreed to fund initial 50 million dollars including technical support (thus creating work for its own experts!). A World Bank team has already visited Patna for this project and joint meeting of IWAI and World Bank has taken place at Varanasi<sup>4</sup>. No public consultation has been held thus far.

Although River Navigation has nothing to do with River Rejuvenation, Shri Nitin Gadkari, Union Surface Trans-

port & Shipping Minister, who played an active role in the Ganga Manthan, announced this navigation plan as a part of ‘Ganga Rejuvenation’<sup>5</sup>.

He also announced that the plan entails erecting barrages (dams) on the Ganga at every 100 kilometer inter-

---

*A lot has been written about Farakka a Barrage so why are we discussing Farakka again?*

*Because Political leaders like Shri Nitin Gadkari have stated that there are plans of building a barrage after every 100 kms in Ganga from Haldia to Allahabad, a 1600 km stretch. So we are looking at possibly 15 more barrages on Ganga. But before taking decision about building any other such structure, we need to understand the range of impacts a single barrage has had on the lives of millions of people and how inadequate has been our response in addressing these impacts.*

*Farakka holds critical lessons for Indian politicians, policy-makers, international groups and financial institutions dreaming of making a string of barrages across a river which has one of the highest silt loads, densest population and the largest deltas in the world.*

---



*Silt Islands just upstream the Barrage.*

**Photo:** Parineeta Dandekar, SANDRP



val from Haldia to Allahabad in addition to river dredging. This would mean damming the Ganga about 15-16 times, to maintain water levels and navigability.<sup>6</sup>

If the plan moves ahead, it may escape environmental clearance as the very limited EIA Notification 2006, being actively amended for dilution by the Modi government, includes only irrigation and hydropower dams in its ambit. This does not mean that these barrages will not have severe impacts on the river, its people and its ecosystems. Far from it. SANDRP has written about the impacts of Upper Ganga Barrage at Bhimgouda, the Lower Ganga Barrage at Narora and the Farakka Barrage in Murshidabad, West Bengal.<sup>7</sup>

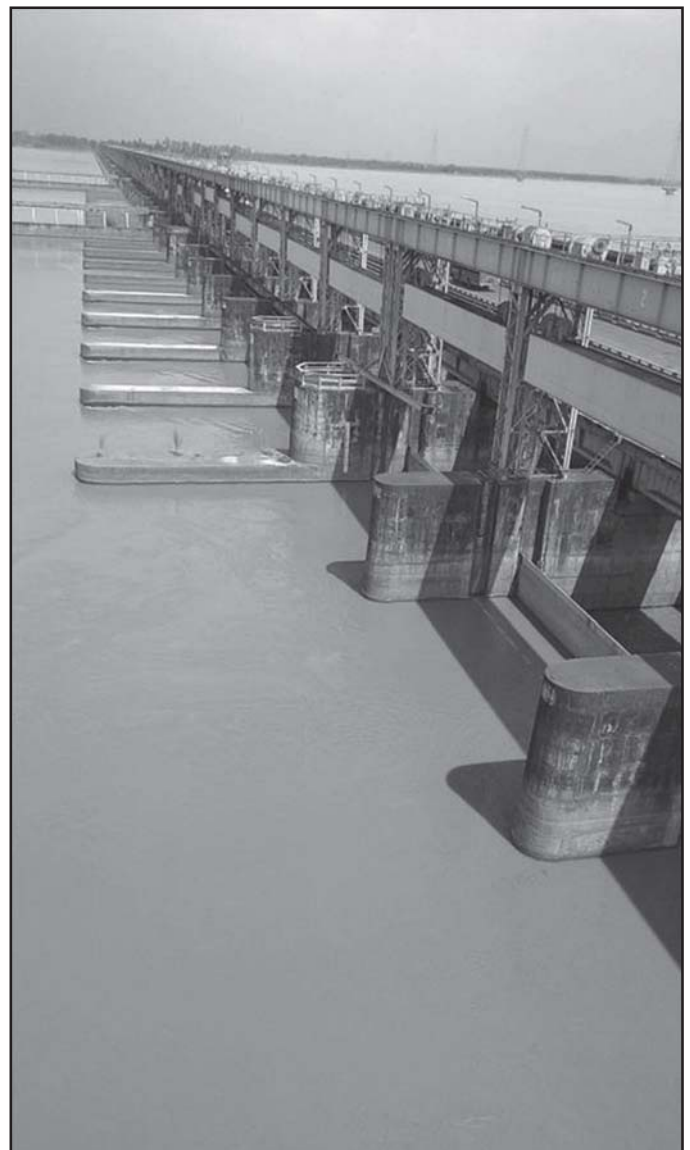
The current analysis is based on official documents and research, site visit, interviews and discussions with experts and local people.

**Farakka Barrage, in the backdrop of proposed Barrages** Farakka Barrage, 2.62 kms long, has a unique purpose. The barrage was built for diverting waters of Ganga into its distributary the Hooghly/ Bhagirtahi, for flushing sediments and maintaining the navigability of Kolkata Port (& Hooghly River) which lies at the mouth of Hooghly. Records about high sedimentation in Hooghly can be traced back to 17<sup>th</sup> Century, but is known to have increased following building of Damodar Dams in post independent India. Construction of a barrage on Ganga and diverting its waters into Hooghly was suggested in the 19<sup>th</sup> Century by Sir Arthur Cotton. After independence, the historic Kolkata port was becoming hugely silted due to sluggish freshwater from upstream on the one hand and strong saline intrusion from the sea on the other. At that time, Farakka Barrage was thought to be an answer to these problems.

Even then, some lone voices highlighted the possible impacts of Farakka Barrage. Notably Mr. Kapil Bhattacharya, Engineer-in-Chief of W Bengal had warned about absence of sufficient water, catastrophic floods and sedimentation in the upstream back in '70s. When Pakistan (current Bangladesh was part of Pakistan during 1947-1971) upheld his views, he was branded as a traitor and lost his job. He had highlighted that one of the main reasons why Hooghly was desiccating was Damodar Valley Corporation (DVC) dams on Damodar & Roopnarayan Rivers.

*The Inland Waterways Authority of India (IWAI) plans to use this waterway for the transport of “coal, fly-ash, food grains, cement, stone chips, oil and other cargo.” Not surprisingly, companies keenly interested in using this waterway include “thermal power plants, cement companies, fertilizer companies, oil companies” etc. In order to make this stretch navigable, IWAI plans initiatives like “river training and conservancy, structural improvement, dredging, and Construction of terminals at Allahabad, Varansai, Gazipur in Uttar Pradesh, Sahibganj in Bihar and Katwa in West Bengal.”*

The Farakka Barrage has 109 gates, and a feeder canal of 38.1 kms emanating from the right bank, carrying water from Ganga to Hooghly. There is one more barrage at Jangipur in the downstream and afflux bunds in the upstream of Farakka, diverting waters of all smaller rivers like Pagla and Choto Bhagirathi into Farakka, effectively drying them in the downstream.



*The Barrage Photo: Author*

The Feeder canal is supposed to divert 40,000 cusecs water continuously from Ganga into Bhagirathi/Hooghly. Hooghly-Bhagirathi itself is not a small river. It is a system drained by 7 tributaries like Pagla, Bansloi, Mayurakshi, Ajoy, Damodar, Rupnarayan, Haldi and the two offshoots of Ganga – Jalangi and Churni.

**Impacts and performance of Farakka Barrage** Several grave questions are being posed on the utility of the barrage itself and its impacts.

Hooghly estuary cannot be made silt-free by 40,000 cusecs from Farakka only. River Expert Dr. Kalyan Rudra, an authority on rivers in Bengal, especially their interactions with sediment, says that the initial objective of Farakka of flushing silt from the mouth of Hooghly has been “frustrated”<sup>8</sup>. This assessment has been supported by many, including the past Superintending Engineer of Farakka Dr. P.K. Parua (Pers. Comm.) According to Kolkata Port Trust, the dredging of silt at Kolkata Port has been rising from 6.4 million cubic meters (MCM) annually from Pre-Farakka days to almost 3.5 times up at 21.88 MCM annually during 1999-2003.

The answer, according to Dr. Rudra, lies in the fact that freshwater flow brought by the Hooghly Estuary, even with 40,000 cusecs from Farakka is just too meagre to flush sediments deep down the estuary. The difference between volumes of freshwater brought by Hooghly, as against the tide bringing saline water from south to north is as much as 1:78, making any deep flushing due to

freshwater nearly impossible. Dams in the Hooghly Bhagirathi Basin by Damodar Valley Corporation have further arrested freshwater which could have naturally replenished Hooghly estuary. At the same time the stated aims of Damodar Valley Corporation, fashioned on the lines of Tennessee Valley Authority have not been fulfilled.

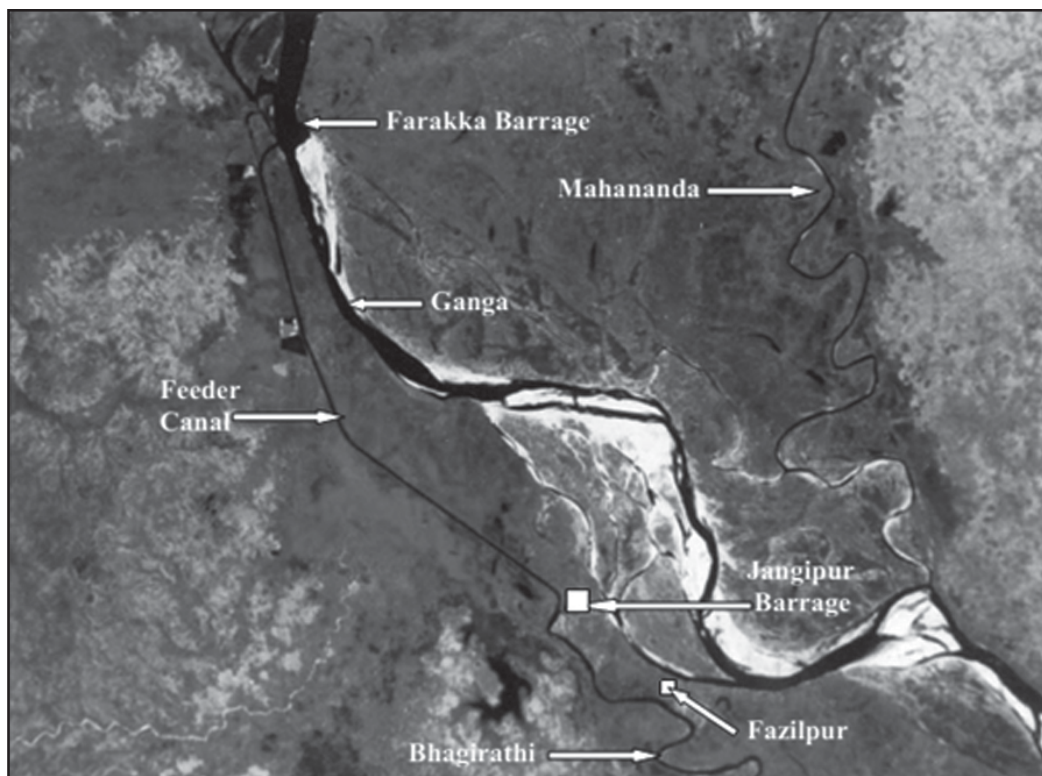
Currently, the functioning of Kolkata Port and Haldia port is entirely at the mercy of Dredging Corporation of India (DCI) to desilt the river to maintain sufficient draft (allowable depth of a ship’s keel under water). DCI gets about Rs 300-350 Crores per year for dredging the channel, although several problems have been unearthed like dumping the excavated silt back in the estuary from where it is washed back in the channel. In 2009, the Government of India had actually written to the Kolkata Port Trust, saying that it has become a “liability” and it should explain why it should continue to receive dredging subsidies. A PIL has been filed<sup>9</sup> in 2013 in Kolkata High Court to save Kolkata and Haldia ports by intensive dredging.

It is clear that 40,000 cusecs water from Farakka is not able to help the Kolkata Port much as was envisaged earlier. SANDRP tried to talk with officials at the Kolkata Port Trust, but they declined answering any questions saying that Farakka is a bilateral issue.

This has led to a situation where we have the barrage and the impacts of two countries and millions of people,

without even achieving objective for which the project was developed.

**Sedimentation in the upstream of Farakka Barrage & its massive implications for India and Bangladesh** It is estimated that Ganga carries a silt load of 736 Million Tonnes (MT) annually, out of which about 328 MT of sediment gets deposited in the upstream of Farakka Barrage ANNUALLY<sup>10</sup>. This annual addition of enormous sediment in the upstream of the barrage has made the river extremely shallow and any ship transport past Farakka has become nearly impossible. As we saw during our visit, islands/chars have formed barely a kilometer up-



Location of Farakka Barrage Depiction **From:** Rudra, *Encroaching Ganga and Social Conflicts*



stream of the barrage, where animals graze, making any transport nearly impossible. This massive retention of sediments has resulted in a two-pronged problem:

**Contribution to delta subsidence and rising sea level in Bangladesh and India** Water released below Farakka barrage has significantly less silt load as about 328 MT silt gets deposited at Farakka. This water has a higher eroding capacity and erodes downstream river-bed. But there is an additional problem: World Heritage site of Sunderbans at the mouth of the Ganga-Brahmaputra-Meghna delta, shared between India and Bangladesh is witnessing possibly the first and highest numbers of Climate Change refugees in the world due to Ingressing Sea which is eating away at smaller islands and the delta. Part reason for this delta subsidence is sea level rise due to global warming and related changes, but the driving reason for encroaching sea is not only sea level rise, but the sinking river delta due to trapping sediment in the upstream dams and barrages like Farakka. The role of river sediments in building deltas is crucial. Ganga-Brahmaputra-Meghna Delta is subsiding rapidly and is categorized as a 'Delta in Peril' by experts like Syvitski et al, due to reduction in sediments reaching the delta and compaction of delta, furthering sea level rise. According to recent studies, the rate of relative sea level rise per year in the Ganga Brahmaputra delta is in the range of 8-18 mm per year, one the highest in the world. The related sediment reduction has been a whopping 30% in the twentieth century.<sup>11</sup>

Farakka Barrage has been highlighted as one of the causes for this blocking of sediments at an important juncture. Any role played by Farakka in delta subsidence of GBM Delta has a massive impact on millions of people residing in this delta. According to Prof. Md. Khalleqzaman (Pers Comm.), the amount of sediment influx flowing into Bangladesh from upper reaches in India has dropped from 2 billion tons per year in the 1960s to less than 1 billion tons per year in recent years, which is not enough to keep pace with rising sea.<sup>12</sup>

**Erosion in the Upstream of the barrage due to Sedimentation** Farakka Barrage is getting silted up due to millions of tonnes of sediment being deposited in the upstream annually. Ganga has been a meandering river, changing courses over centuries, forming paleo channel and ox bows. This deposition of sediment in the upstream is accelerating swinging of Ganga alarmingly to the left bank of the river. This is leading to tremendous erosion in Malda and surrounding regions. More than 4000 ha in Malda has been eroded by the Ganga since 1970s. The river has also breached 8 embankments. Although a number of authors have conclusively written about this and even Legislative Assembly of W Bengal has been unequivocal in saying: "It is accepted all

levels that the construction of Farakka Barrage is solely responsible behind the erosion of river Ganges in Malda district", Central Water Commission trivializes this fact and does not accept any responsibility of Farakka. The only issue CWC seems to be bothered about is the health of the barrage itself which is compromised by erosion on the left bank. In official correspondences of CWC and MoWR scrutinized by SANDRP, the agencies do not mention anything about plight of thousands of people, who are refugees of a swinging river, but are only concerned about the strength of the barrage.<sup>13</sup>

According to Audit Report on Farakka Barrage by Indian Audit and Accounts Departments, during 2006-2012, the "Unintended Consequences" of Farakka include:

Induced water through feeder canal raised water level of Bhagirathi by about 5 meters near Jangipur and does not allow Bansloi and Pagla to join Bhagirtahi freely. A new wetland Ahiron Beel due to congestion has been formed which has submerged fertile land.

The barrage has trapped substantial sediment and hence river in changing course. In homogenous situation the oscillation of river is secular but it gets aggravated due to Farakka Barrage. On account of Rajmahal hills on right bank and Farakka barrage on the channel, the river erodes the left bank.



*Bank Erosion and Embankment breach at Hiranandpur*  
**Photo with thanks:** Soumya Desarkar

The 10 day cycle of increased and decreased release of water from the Barrage has resulted in a complex phenomenon of recharging ground water by river and then receiving base flow from groundwater (when river is low). The frequent change in water level on account of 10 day altered flow adversely affects the rivers hydro-geomor-



phology leading to escalating bank erosion. River bed height in Farakka pondage has increased and the river is compensating this reduction by expanding its cross section sideways.

**Erosion Downstream of the barrage, leading to loss of life and property** Sedimentation upstream of the barrage, coupled with natural swing of Ganga has meant that the river is swinging to the left, encroaching the left bank, leading to erosion in thousands of villages, roads, fields in the downstream of the Barrage in India as well as Bangladesh, causing annual floods. The Irrigation Department of W Bengal (Report of the Irrigation Dept for 1997-2001) has agreed not only about this erosion due to Farakka Barrage, but has also cautioned about the possibility of outflanking of the Farakka Barrage itself. Many experts maintain the eminent possibility of Ganga outflanking the barrage to flow through its old course of the 15<sup>th</sup> century, which will reduce the barrage to just a bridge.

On our visit to Farakka, Kedarnath Mandal, a veteran activist working on issues of Ganga and Farakka accompanied us to see extensive erosion in the left bank of the river in the upstream at Simultola as well as downstream in Chauk Bahadurpur. In both these regions, the eroding river has paid little heed to the erosion control measures on the banks. Huge boulders have been swept with the current, destabilizing land in their wake.

We saw extensive bank erosion on the left bank in the downstream where all measures like bull headed spurs, dip trees, porcupines, gunny bags, geo-synthetic covers, boulders bars, boulder crates with nets, etc. have not helped.

In this entire din, the people residing in the chars, their leaders like Kedarnath Mandal, River experts and even the Legislative Council of W Bengal maintain that though erosion and changing courses is a character of Ganga, it has worsened & accelerated hugely since the Farakka Barrage has been built. In fact the 13<sup>th</sup> Legislative Assembly Committee (2004) in its 7<sup>th</sup> Report notes: "It is accepted at all levels that the construction of Farakka Barrage is solely responsible behind the erosion of river Ganges in Malda district".

#### **Near Impossibility of desilting Farakka Barrage**

To say that the challenge of desilting Farakka Barrage is Herculean, will be an understatement. The irreversible circle of events is highlighted by the fact that in order to have any appreciable impact, the amount of sediment lifted from the barrage should be at least twice the amount deposited per year, if the project is to be completed even in thirty years. But that seems impossible. According to Dr. Rudra, "Doing so will require a fourteen lane dedicated highway from Malda to Gangasagar" and the transport cost alone "would be nearly twice the revenue earned by Government of In-



*Washing away erosion control measures at Chow Bahadurpur downstream FBP Photo: Author*

dia in a year." Dr. P.K. Parua also accepts that desilting the barrage will be next to impossible.

Such is the scale of sedimentation at Farakka.

**Source of conflict with Bangladesh** Experts and authorities from Bangladesh have been raising the issue of impact of Farakka for several years now. Farakka Barrage not only obstructs the flow of sediments in Bangladesh, but also diverts waters of Ganga away from Bangladesh delta, depriving millions of fisherfolk and farmers from their livelihood. Water sharing from Farakka, particularly in lean season is now governed by Ganges Water Treaty of 1996. The Treaty holds force between 1<sup>st</sup> January to 31<sup>st</sup> May each year and water sharing calculations are based on 10 day flows. Some experts from Bangladesh have maintained that Ganges Water Treaty is not being implemented properly and Bangladesh is receiving less water than it's due.<sup>14</sup> There are issues raised by the Indian side as well of dwindling water availability. All in all, the barrage and the resultant Treaty continues to be a source of impacts for the river and people of the two nations.

**Meeting officials at Farakka Barrage** SANDRP met with the Authorities at the Farakka Barrage Project office, which is under the Ministry of Water Resources (MoWR), at New Farakka. After meeting the officials, it was clear that they have no program for silt management at all. They do not even see this as an area of concern and are only concerned with anti-erosion works, which are failing miserably, and releasing water to Kolkata Port, which is not improving its navigability.

While some may argue, rather irrelevantly (considering the warnings of Kapil Bhattacharyya), that Engineers

in 1950s, 60s and 70s were not equipped or aware of the issues related to sediment and its far-reaching impacts like erosion, deposition, floods, even sea level rise, the same in any case cannot be said about the current water management. They have the privilege of better knowledge, better resources and also lessons from past experiences. But despite having clear evidence that silt of Ganga is playing havoc with millions in India as well as Bangladesh, the Farakka Barrage Authorities tell us that they have no plan for silt management at the barrage except annual erosion control measures.

The mandate of the barrage authorities is also 120 kms of bank erosion works, 40 kms in the upstream and 80 kms in the downstream. We were told on the condition of anonymity that this extensive work leaves little time even for maintaining the barrage. The bank protection work is also not permanent and is eroded with flood waves. The bureaucratic set up at Farakka makes it impossible to take proactive decisions about Barrage maintenance. The gates of the barrage need replacement, but there is hardly any agency interested in working for Farakka Barrage due to bureaucratic delays.

The officials told SANDRP that the only desilting measure that can be adopted is opening all gates of the Barrage, but that will not be possible unless all gates are replaced as many gates are dysfunctional. Replacing all gates of Farakka will take at least two more years and we do not know even after that whether silt can be flushed. Such a flushing will need a major flood event and the impact of such sudden flushing of billions of tonnes of silt in the downstream will be unprecedented & huge. Meeting with Farakka Barrage Authorities leaves one with more questions than answers.

**Interview with past official of Farakka SANDRP** discussed the multiple issues of Farakka with one of the senior retired official from the Farakka Barrage Authority who has seen the work of the FBPA closely over several years. Some excerpts from these discussions.

**SANDRP:** Sir, do you think Farakka is fulfilling its functions?

**Answer:** Farakka was not only designed for diverting water for Hooghly, it was foreseen that there may be an Irrigation component and even a hydropower component. But the inflow at the barrage was over calculated. We never had that sort of inflow in the project. Add to this Treaty with Bangladesh in 1996 and India was left with little water. I would say objectives of Farakka were only partially fulfilled. The barrage has a designed discharge of 27,00,000 cusecs and we have been able to achieve that discharge only twice since commissioning the barrage. In the recent years, water flow has been declining sharply at the barrage. This further handicaps all its functions.

**SANDRP:** There are several problems associated with silt deposited in the upstream of the barrage like floods, change in course of the river, erosion, etc. Is there any way to tackle this deposited silt?

**Answer:** Yes, that is a serious problem. This is being faced by ports and barrages the world over and also across India. There are so many players responsible for the increasing silt load and reduced water in the river, right from Nepal.

We can say that the scale of the sediment issue was not understood when the barrage was designed, the engineers then did not have the knowledge or tools for this. Even now, there is no easy way this issue can be tackled. Desilting the barrage would be very costly, and what would we do with the collected silt? Malda and Murshidabad region is densely populated, we cannot dump it anywhere. If we dump it in the river, there will be other problems. It is possibly an evil we have to live with now.

**SANDRP:** There are plans to erect about 16 more such barrages on the Ganga main stem. What would be the lessons from Farakka for these barrages?

**Answer:** I think this is a horrible plan. In addition to the challenge of silt, I wonder where will the water come from? Supplies from Upper Ganga Canals are increasing, reducing water flow in the river. Uttar Pradesh is increasing the capacity of Lower Ganga Canals. More and more abstraction will happen. Such a plan does not seem feasible and will be harmful for the river as well.



*Fishermen upstream Farakka are a worried lot* **Photo:** Author

**Ecological Impacts: There's no Hilsa here** Farakka Barrage has stopped migration of economically important species like the Hilsa (*Tenualosa ilsha*) and *Macrobrachium* prawns, both *Ilish* (Hilsa) and *Chingri* (*Macrobrachium*) hold a special significance to people in West Bengal and Bangladesh. A lot has been written about the Barrage's disastrous impact on Hilsa production and impoverishment of fisherfolk in India and Bangladesh<sup>15</sup>. About 2 lakh fisherfolk in Malda district alone depend on riverine fisheries and Hilsa here was the backbone of the fishing economy.

Although Central Inland Fisheries Research Institute (CIFRI) has a lab to work on Hilsa, the institute is not working on Fish passes or Hilsa Hatcheries at the Barrage itself!

Prior to commissioning Farakka Barrage in 1975, there are records of the Hilsa migrating from Bay of Bengal right upto Agra, Kanpur and even Delhi covering a distance of more than 1600 kms. Maximum abundance was observed at Buxar (Bihar), at a distance of about 650 kms from river mouth. Post Farraka, Hilsa is unheard of in Yamuna in Delhi and its yield has dropped to zero in Allahabad, from 91 kg/km in 1960s. Studies as old as those conducted in mid-seventies single out Farakka's disastrous impacts on Hilsa, illustrating a near 100% decline of Hilsa above the barrage post construction.<sup>16</sup>

We met fishermen who have not caught a single Hilsa in the upstream of the barrage despite fishing for three days. In the downstream too, size and recruitment (population) of Hilsa is affected due to arrested migration at Farakka. Some 2 million fisherfolk in Bangladesh depend on Hilsa fishing. Hilsa in Padma River (Ganga in India) downstream Farakka has also declined sharply due to decreasing water and blockage of migration routes.<sup>17</sup> These fisherfolk have never been compensated for the losses they suffered. They were not even counted as affected people when the barrage was designed and they are not counted even now.

**Fable of Farakka Fish Lock** The tale of Farakka Barrage Fish Lock is another tragic story. Fish Lock is a gated structure in a Barrage that needs to be operated specifically to facilitate migration of fish from the downstream to the upstream or vice versa to breed, feed or complete their lifecycles.

According to CIFRI, Farakka Barrage has two Fish Locks between gates 24 and 25. The locks need to be operated to aid fish migration and transport fish. We talked with the Engineers at Farakka Barrage Authority, local villagers, fishermen and even the Barrage Control Room officials who operate the gates of the barrage about the functioning of the Fish Lock. No one had even *heard about a Fish Lock*.

The control room officials kept showing us the ship lock at the Barrage (which is also rarely used due to turbulence and sedimentation) and told us categorically that "There is nothing called as fish lock here". The locks have not been operated for a minimum of a decade, possibly much longer. There is some information that there is one more ship lock further upstream in the river, but the FBP Authorities did not seem aware of this.

---

*The Fish Lock Gates of Farakka Barrage were hardly operated. Now they are forgotten by all, including the Engineers of Farakka. This has caused life time's losses to fisherfolk upstream the barrage. Who is responsible for the loss of fisherfolk income in the meantime? Will the Farakka Barrage Authority or the MoWR or the CWC or the Kolkata Port Trust or Inland Waterways Authority of India compensate them?*

---

According to Dr. Parua, fish locks were operated for some time when he was posted at Farakka, but they never worked as planned. He believes that a bare 60 feet width of fish lock for a barrage that is more than 2.6 kms long is of little use. There should have been more fish locks planned. He also lamented about

the non-functionality of Hilsa Fish Hatchery set up at the banks of the barrage. (We were not even told about the presence of this structure by any of the officials or other concerned persons we met and possibly it has now fallen to complete disrepair.) He said despite CIFRI is based in W Bengal and has a special cell to study Hilsa, they or the Fisheries Department have taken no interest in the functioning of the hatchery or the Fish Locks.

**In conclusion** The issues arising out of Farakka are extremely serious. Our planners and decision makers may claim that many of the impacts were not foreseen (Not entirely true). But the issue cannot be ignored any longer. We need a credible independent review of the development effectiveness of Farakka Barrage, including costs, benefits and impacts.

What we seem to be doing now is to repeat the mistakes of the past with new barrages planned on the Ganga. The existing Upper Ganga Barrage (Bhimgouda Barrage) has dried up the river in the downstream. The river is diverted in a canal, where people take ritual baths, while the original riverbed is used as a parking lot.

The Lower Ganga (Narora Barrage) has severely affected fish migration & dried up the river in the downstream at least in lean season. The Barrage has a fish ladder,



but there is no monitoring or concern as to whether it is working or not. In its report to the World Bank, Uttar Pradesh Government has said that the “condition of the barrage is poor” and has lamented about increased siltation in the upstream of the barrage and the inability to flush the sediments due to poor condition of its gates.<sup>18</sup>

Beyond doubt, the existing barrages, especially the Farakka Barrage have had massive impacts on the river, its ecosystems and its people. We have many critical lessons to learn from these experiences. In stead, we are pushing for more barrages on a river which will only compound existing problems.

Ganga is much more than a waterway or a powerhouse. It is a river, supporting not only urban areas and industries, but rural communities, the basin, the ecosystem and myriad organisms in its wake and it needs to be respected as an ecosystem first. The Ganga is being fettered at its origin in the Uttarakhand by over 300 hydropower dams. In addition, if it is again dammed many times over times in its main channel, then the government will not have to worry about River Rejuvenation Plan. There will be no river left for rejuvenation.

**-Parineeta Dandekar, SANDRP**  
(parineeta.dandekar@gmail.com)

## Bibliography:

Dr. Sutapa Mukhopadhyay et al, Bank Erosion of River Ganga, Eastern India –A Threat to Environmental Systems Management

G Verghese, Waters of Hope: Facing New Challenges in Himalaya-Ganga Corporation, India Research Press, 2007

Milliman et al, Environmental and economic implications of rising sea level and subsiding deltas: the Nile and Bengal examples, JSTOR, 1989

Syvitski et al Sinking deltas due to human activities Nature Geoscience, September 2009

Thakkar H, Dandekar P, Shrinking and Sinking Deltas, Major role of dams in delta subsidence and Effective Sea Level Rise, SANDRP, 2014

A Photo Feature on Farakka Barrage: <https://sandrp.wordpress.com/2014/09/29/world-rivers-day-and-ganga-a-look-at-farakka-barrage-and-other-such-calamities/>

1 Pers. Comm.

2 For a earlier SANDRP report on Farakka, see: [http://sandrp.in/dams/impct\\_frka\\_wcd.pdf](http://sandrp.in/dams/impct_frka_wcd.pdf)

3 <http://iwai.nic.in/index1.php?lang=1&level=0&linkid=115&lid=781>

4 <http://timesofindia.indiatimes.com/city/varanasi/No-environmental-clearance-for-Haldia-Allahabad-Waterway/articleshow/39827972.cms>

5 <http://sandrp.wordpress.com/2014/07/08/will-this-ganga-manthan-help-the-river/>

6 <http://www.toxicswatch.org/2014/08/work-commencing-on-ganga-waterway.html>

7 SANDRP's Report on Farakka, 1999: [http://sandrp.in/dams/impct\\_frka\\_wcd.pdf](http://sandrp.in/dams/impct_frka_wcd.pdf)

8 Dr. Rudra, Kalyan, The Encroaching Ganga and Social Conflicts: The Case of West Bengal, India, 2008

9 <http://timesofindia.indiatimes.com/city/kolkata/PIL-to-save-Kolkata-and-Haldia-ports-filed/articleshow/20526985.cms>

10 Dr. Rudra, Kalyan, The Encroaching Ganga and Social Conflicts: The Case of West Bengal, India, 2008

11 SANDRPs report on Delta Subsidence and Effective Sea Level Rise due to sediment trapping by dams: <http://sandrp.wordpress.com/2014/05/07/sinking-and-shrinking-deltas-major-role-of-dams-in-abetting-delta-subsidence-and-effective-sea-level-rise/>

12 For more details see: [http://sandrp.in/Shrinking\\_and\\_sinking\\_delta\\_major\\_role\\_of\\_Dams\\_May\\_2014.pdf](http://sandrp.in/Shrinking_and_sinking_delta_major_role_of_Dams_May_2014.pdf)

13 <http://www.environmentportal.in/files/Farakka%20Barrage.pdf>

14 Khalequzzaman, Md., and Islam. Z., 2012, 'Success and Failure of the Ganges Water-sharing Treaty' on WRE Forum <http://wreforum.org/khaleq/blog/5689>

15 <http://sandrp.wordpress.com/2014/09/01/collapsing-hilsa-can-the-dams-compensate-for-the-loss/>,  
[http://wwf.panda.org/wwf\\_news/?186621/Climate-change-could-drown-out-Sundarbans-tigers—study](http://wwf.panda.org/wwf_news/?186621/Climate-change-could-drown-out-Sundarbans-tigers—study),  
<http://www.the-south-asian.com/april-june2009/Climate-refugees-of-Sunderbans.htm>,  
<http://www.sciencedirect.com/science/article/pii/S092181819190118G>

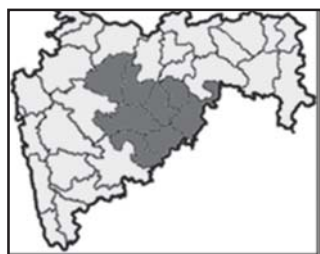
16 Ghosh, 1976 quoted in Review of the biology and fisheries of Hilsa, Upper Bengal Estuary, FAO, 1985

17 <http://www.downtoearth.org.in/node/2071>

18 [http://sandrp.in/rivers/Dolphins\\_of\\_the\\_Ganga-few\\_fading\\_fewer\\_frolicking.pdf](http://sandrp.in/rivers/Dolphins_of_the_Ganga-few_fading_fewer_frolicking.pdf), also: World Bank, Uttar Pradesh Water Restructuring Project Phase II, 2013

## Can Marathwada afford to undertake Sugarcane Crushing in this terrible drought?

Since 2012, farmers in Maharashtra, especially in Marathwada and Vidarbha region of central and eastern Maharashtra are faced with unending crisis. What started as drought of 2012 went on in form of violent rains at places



in 2013, hailstorms of February-March 2014, scanty monsoon in 2014 and unseasonal rains at places in Nov 2014, affecting lakhs of farmers. Agricultural production has suffered losses as impact of scanty rainfall has been compounded by

absence of rains in critical time windows when soybean was filling and cotton bolls were forming. More than 8000 villages in Marathwada region which comprises of Aurangabad, Nanded, Parbhani, Latur, Beed, Hingoli, Jalna and Osmanabad have recorded crop losses of more than 50%. Now, it is reported that the figure has reached around 24,000 villages with agricultural yield less than 50%. This is said to be worse than the 2012 drought<sup>1</sup>, although rainfall wise, the two years are comparable.

The entire Winter Assembly of the newly formed Government seems to be clouded by discussions of drought package and increasing farmer suicides in Marathwada and Vidarbha. Since January 2014, more than 400 farmers have committed suicide in Marathwada region, and the pace is picking up worryingly since the past month. Hydrological, meteorological and agricultural droughts are becoming more pronounced in Marathwada.

According to news reports, in the past 11 months, 454 farmers only in Marathwada<sup>2</sup> have committed suicide due to number of reasons, most linked to crop failure and debt. Strikingly, after late November 2014, 52 farmers committed suicides mainly from Beed, Nanded and Osmanabad regions.

	District	Number of farmer suicides since Jan 2014
1.	Beed	122
2.	Nanded	104
3.	Osmanabad	54
4.	Parbhani	49
5.	Aurangabad	40
6.	Jalana	22
7.	Hingoli	29
8.	Latur	34

The issue has been raised in the Winter Assembly by the enthusiastic opposition and the Chief Minister has announced a drought package of Rs 7000 Cores<sup>3</sup>.

**But can this be attributed to vagaries of nature alone?** A brief analysis of the underlying reasons for the crisis in Marathwada and its future implications:

**Truant Monsoon of 2014** As per SANDRP's analysis of district-wise rainfall figures of Marathwada in monsoon 2014, the picture which arises is dismal:

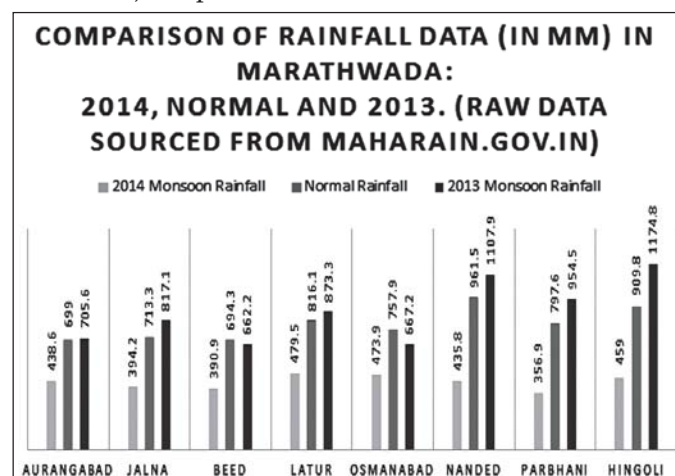


Table 1 Farmer Suicides in various districts of Marathwada since January 2014

For 2014, departure from normal rainfall for 6 out of 8 districts in Marathwada was more than 40% and rest two districts it was more than 50%, indicating a huge reduction in rainfall. Contrary to what is being stated in the media, the region received satisfactory rainfall in 2013 monsoon. In fact, 6 districts of the 8 received more than 100% of normal rains and remaining two districts received 88% and 95% of normal rains last year. This is one of the reasons that the reservoir storage in 2014 did not fall as sharply as they did in 2012-13 drought. On 15<sup>th</sup> October 2014, Jayakwadi dam in Aurangabad had 42% Live storage, which was more than October 2013 storage of 33% and 2012, when it had reached dead storage already (<http://www.mahawrd.org/>). The entire Marathwada region too showed large reservoir storage of 47%, which is not extremely alarming. At the same time, the region today is facing one of the worst droughts in recent history.

(Notably, this is the first time I have witnessed that the Dam Storages data of [www.mahawrd.org](http://www.mahawrd.org), the official website of the Water Resources Department is not updated with weekly Dam Storage Levels. This had not happened even at the peak of 2013-12 Drought. Our queries to WRD on this front have been unanswered till date.)

This seemingly contradictory situation underlines a number of things, most important being: large dams do not automatically equate with water in farmers' fields. Work on many projects (most projects in Marathwada) is incomplete (for example: canals of projects like Lower

Dudhana, Jayakwadi Phase II, etc), while contractors and politicians have made a pretty packet from the contracts, many projects are 'evaporation machines' than a water supply systems, without canals and distributaries or systems to govern water management. The available impounded water is a valuable political tool, and is used as such. Water allocation and management is far from being sustainable, transparent and accountable.

At the same time, there is a huge tussle going on between Nashik and (Ahmed) Nagar on one hand and Marathwada on the other, for water. Godavari which originates in Western Ghats flows through Northern Maharashtra and then becomes the lifeline of Marathwada region. Nashik and Ahmednagar have constructed slew of large dams on Godavari and have always been reluctant to release water for Jayakwadi dam in Aurangabad in the downstream. We saw this episode flaring up last year and we are seeing an action replay this year as the High Court has ordered immediate release of water from upstream dams for Jayakwadi.<sup>4</sup>

WRD officials and administration have taken cautious stand and water in reservoirs is now reserved mainly for drinking water purposes, any release in downstream for irrigation is being delayed and is being made only after strong negotiations, badly hitting rabi cultivation, area under which is already less than last year.

But even as conflicts flare up, protests rage and assembly is disrupted, sugarcane crushing goes on unhindered in Marathwada, in whopping 70 Sugar factories!

On the unfortunate and expected lines, the government has not said a word about restricting cane crushing in Marathwada this year, which itself guzzles massive amounts of water, apart from cane cultivation. On the other hand, the BJP party president, Amit Shah himself attended first crushing day of some factories (one of which was reportedly captured by relatives of a BJP MLA!<sup>5</sup>) A look at sugarcane cultivation and crushing season so far in Marathwada:

	District	Area under sugarcane (in hectares)	Number of Sugar factories operational
1.	Aurangabad	15,373	9
2.	Jalna	11,083	5
3.	Beed	27,299	10
4.	Parbhani	25,567	6
5.	Hingoli	18,037	3
6.	Nanded	28,057	9
7.	Osmanabad	43,635	16
8.	Latur	61,479	12
	<b>TOTAL</b>	<b>2,30,530 Hectares</b>	<b>70 Factories</b>
<b>TOTAL SUGARCANE AVAILABLE FOR CRUSHING IN MARATHWADA: 154.28 Lakh Tonnes</b>			

Table 2: Area under sugarcane and Sugar Factories in Marathwada Source: Sugar Commissionerate

(All data obtained by SANDRP from Sugar Commissionerate, Maharashtra Government, Dec 2014)

So a total of 70 sugar factories will crush 154.28 Lakh Tonnes Cane in a period when drought is so bad that water will not be released from reservoirs for irrigation!

In doing so, the factories will use a minimum of **1500 litres of water to crush one tonne of cane. To crush 154.28 lakh tonnes, minimum amount of water used will be: 23,142,000,000 Litres or 23.14 Million Cubic Meters. This is the lowest estimate.**

This amount would be sufficient to irrigate nearly 8,000 acres of high yielding groundnut, more of Jowar or can be sufficient for drinking water needs of nearly 15 lakh 85 thousand people<sup>6</sup> till the onset of 2015 monsoon!

This water will be used till the end of crushing season when the drought will be extremely severe if we look at current indices.

Is there a justification of doing so? Will even Rs 10,000 Crore drought package come close to ameliorating the impact of water loss at the peak of drought?

In addition, the pollution control mechanism of most sugar factories is pathetic. Pollution Control Board has raised this number of times. Uncontrolled water and soil pollution by sugar factories will additionally pollute groundwater and water bodies, further affecting water security of the region. This water may be sourced from dams and groundwater. SANDRP has witnessed in 2012-13 drought, sugar factories in Marathwada, mainly Osmanabad region lifted water from dams even when water levels had dipped below dead storage. What will be the impact of this siphoning on local drinking water security?

We should not forget that one of the costliest political lesson for NCP came when Ajit Pawar uttered extremely insulting remarks on dry reservoirs, mocking people's plight. This was in context of a protest by a lone farmer from Mohol, urging water for drinking, even as sugar factories on Mohol used lakhs of litres of water, when the farmer, Prabhakar Deshmukh, was fasting in Mumbai! Needless to say, the ruling party's defeat was sealed through such acts.<sup>7</sup>

Even in terms of groundwater, Marathwada region has literally touched rock bottom. In a report by GSDA (Groundwater Survey and Development Agency) submitted to Government of Maharashtra<sup>8</sup>, it has been reported that in 249 villages of Marathwada, abstraction has been 100% and there is no more water to draw. Not surprisingly, the regions suffering largest groundwater problems are surrounded by sugarcane crop and sugar factories. In the past too, SANDRP has underlined how sugarcane in drought affected areas contributed to worsening drought of 2012-13. Then Solapur was in crisis.





Trailer full of sugarcane crosses dry canal of Ujani Dam in Maharashtra **Photo:** Parineeta Danekar

This year, the district which has 28 sugar factories two years back has 34 sugar factories!

All government announcements about bringing sugarcane under drip have remained on paper and sugarcane continues to rule the drought politics of the region, regardless of the political party. In fact, the Cooperation Minister of BJP Government Chandrakant Patil has announced that the only clause which has been limiting further sugar factory rush (of having a minimum aerial distance of 15-25 kms between two factories<sup>9</sup>), can be diluted “to promote healthy competition”. 200 factories are lined up for licenses with the Sugar Commissionerate! There is no thought about the impact of this decision on water profile of Maharashtra.

This defies logic. The work of Winter Assembly was disrupted several times on 10<sup>th</sup> December 2014 by aggressive opposition asking for an immediate drought package for Marathwada and Vidarbha. How can a Rs 4,000

or even Rs 10,000 Crore Drought Package address these systemic issues? How can this package address siphoning off water from a drought hit region in peak drought? The opponents are happy discussing help to sugar factories for drought relief, not raising any points about impending impacts of crushing cane in drought. It is good to see water experts like Madhavrao Chitale state that Sugar factories have to be driven out of Marathwada if we are to contain the drought<sup>10</sup>. This statement made on 25<sup>th</sup> December 2014 may be too little too late in coming. It has to be noted that in January 2013, when the drought of 2012-13 was at its peak, Osmanabad District Collector Shri. Nagargoze had written a letter to the State Government to suspend cane crushing<sup>11</sup> in the district as it was facing eminent water scarcity and had received less than 50% rains. The district then had 11 factories and now has 16 factories. No heed was paid to Shri. Nagargoze’s warnings and the same may happen this year too.

In the long term, there is a need to reduce area under sugarcane and provide proper incentives, fair support price, forward and backward market linkages and support for initiatives like horticulture under drip (and there are several success stories from Marathwada on this), dairying, oil seed and pulses cultivation and processing, dryland farming and importantly, equitable and transparent water management involving all farmers in the region, not restricted to a few. This should start with protecting, rejuvenating and creating more local water bodies.

It is high time that long term decisions are taken in order to make Marathwada truly drought proof and free from clutches of ‘drought packages’ and opportunistic politics, year after year. A start can be made by restricting cane crushing in the region immediately.

**-Parineeta Dandekar,**

[parineeta.dandekar@gmail.com](mailto:parineeta.dandekar@gmail.com), SANDRP

Marathwada Farmers need Water: <http://72.78.249.126/Agrowon/20141013/5520233630699177815.htm>

Recent relevant SANDRP Analysis on water issues in Maharashtra: Open Letter to Devendra Fadnavis: <https://sandrp.wordpress.com/2014/11/14/open-letter-to-devendra-fadnavis/>;

Further work on SANDRP on Drought, Maharashtra and Sugarcane can be found in Category: Maharashtra

- 1 <http://www.downtoearth.org.in/content/another-5700-villages-maharashtra-s-drought-list>
- 2 <http://www.esakal.com/NewsDetails.aspx?NewsId=5611377824684291267>
- 3 <http://www.dnaindia.com/india/report-rs-7000-crore-package-for-drought-hit-areas-in-maharashtra-2043163>
- 4 See: <http://indiatgether.org/share-environment>
- 5 <http://www.loksatta.com/mumbai-news/bjp-leaders-closed-try-to-take-over-control-on-sugar-factory-in-paithan-1049861/>
- 6 @ 80 litres per capita per day
- 7 More about Sugarcane in Solapur here: <https://sandrp.wordpress.com/2013/04/22/why-solapur-sugarcane-and-sustainability-do-not-rhyme/>
- 8 <http://www.loksatta.com/maharashtra-news/no-rain-in-marathwada-1047256/>
- 9 [http://www.business-standard.com/article/economy-policy/maharashtra-likely-to-abolish-25-km-limit-between-two-sugar-units-114112300348\\_1.html](http://www.business-standard.com/article/economy-policy/maharashtra-likely-to-abolish-25-km-limit-between-two-sugar-units-114112300348_1.html)
- 10 <http://www.loksatta.com/maharashtra-news/expel-sugar-factories-from-marathwada-dr-madhav-chitale-1054670/>
- 11 <http://budget.livemint.com/Politics/tBAf2SQJDHNzcmRGmlifsM/Suspend-cane-crushing-in-11-factories—Osmanabad-DM.html>

## HLC Report on Review of Environment Laws: Utmost Good Faith towards the Industry, Utmost suspicion towards the affected

In its initial pages, TSR Subramanian Committee Report (High Level Committee Report) comes across as a well-written, even eloquent document, but it soon turns out to be an illusion. That the environmental laws and governance needed streamlining and a strong, unbiased review was beyond doubt. Such a step was welcome. The report came at a time when environmental issues were abused and made to stand in judgment like no other.

Despite the bias surrounding the inception and work on the report, it deserves a serious analysis[1]. (We have not dwelt too much on the structure or details of the report as these have been laid out clearly in other critiques.) The High Level Committee constituting of 4 members and 2 Secretaries[2] under the Chairpersonship of Shri T.S.R. Subramanian, Former Cabinet Secretary, was formed on 29<sup>th</sup> August 2014 vide OM No. 22-15/2014-IA.III. Terms of Reference of this committee were:

- (i) To assess the status of implementation of each of the aforesaid Acts vis-à-vis the objectives;
- (ii) To examine and take into account various court orders and judicial pronouncements relating to these Acts;
- (iii) To recommend specific amendments needed in each of these Acts so as to bring them in line with current requirements to meet objectives; and
- (iv) To draft proposed amendments in each of the aforesaid Acts to give effect to the proposed recommendations.

The third objective of bringing “laws in line with current requirements to meet objectives” is unclear in the absence of stating what the current requirements pertain to: What requirement? Whose requirements? Environmental, Social or Economic requirements? What Objectives? Whose objectives? The committee did not even attempt to clear air about these issues, though questions were raised. The composition of the committee also raised serious issues. (See SANDRP blog and Ritwick Dutta’s guest blog.)

So we had a committee of 4 members and 2 secretaries with questionable credentials, with an unclear TOR and

put together by a government which had taken a biased stand on environmental issues sitting in judgment on all 6 environmental laws of the country[3], related orders, institutions and mechanisms which would affect myriad communities, forests and ecosystems. The review was to be done in a period of initially 2 months, extended by a month. Unbelievably, in these three months the committee not only suggested radical changes in all of the above, but also recommended a brand new Law (strangely) called Environmental Laws (Management) Act or ELMA, which, they suggest, would prevail over all contrary judgments issued in past decades or provisions of any environment law promulgated till date!

Going through the report, as pointed out by Shripad Dharmadhikary in his critique, the report does make a relatively sound diagnosis of the problems of environmental governance of the country. Anyone, either from civil society or industry, who has experienced Forest Clearance or Environmental Clearance procedures, cannot but help be amazed at the entrenched bureaucracy, pathological reluctance to be transparent, colossal lack of accountability while taking decisions affecting ecology-social systems-industries, laziness to change any of the problematic entrenched systems and lack of respect for the people who are affected by decisions. Anyone who has made rounds to Pollution Control Board offices cannot miss the apathetic atmosphere, the couldn’t-care-less attitude of the officials.

So the diagnosis did detect the aching nerve when it states: “*The legal instruments have really served only the purpose of a venal administration, to meet rent-seeking propensity at all levels. This impression has been further strengthened by waves of large scale ‘clearances’, coupled with major delays in approvals in individual cases*” or “*The state – arbitrary, opaque, suspiciously tardy or in-express-mode at different times, along with insensitivity – has failed to perform. The administrative machineries in the Government in the domain of Environment & Forests at all the levels, authorized to administer by Parliament’s statutory mandate, appear to have abdicated their responsibilities.*”

*“Environmental management is currently seen as an anti-thesis to development; development is seen as inimical to the habitat, natural assets, and in certain circumstances undermining peoples’ livelihood.” “Legislations are weak, monitoring is weaker and implementation is weakest.” And: “Our businessmen and entrepreneurs are not all imbued in the principles of rectitude – most are not reluctant, indeed actively seek short-cuts, and are happy to collaboratively pay a ‘price’ to get their projects going.”*

Finally when the report evokes not only current challenges, but even inter-generational equity, it sounds too good to be true! *“That environment is sacrosanct; that the purity of air, water and land has been inherited by a generation in mortgage for children of tomorrow; that it is implicitly imperative for each generation to leave the environment to the next generation in a better state than they found it.”*

**Where are the people?** But as you continue reading through the lucid prose, you get that strange feeling of missing the elephant in the room. Where are the people? Where are the millions of people who live in forests or mountains or river valleys and islands or far flung villages, who are most affected by shoddy environmental governance? Why is the report not even mentioning the hardships faced by thousands of such fishermen who lost their livelihoods due to pollution of Vashishthi creek while the MPCB sleeps, or the cracks on the homes of people in Uttarakhand due to hydel projects which received clearances from MoEF & CC, or the remote hilly settlements in Himachal who lost their sources of water due to tunneling and blasting for hydropower, or millions of fisherfolk who lost their rights to their rivers, or millions of tribals and others who are still awaiting rehabilitation after being driven out of their homes and their livelihoods?

Suddenly, one stumbles on sentences like “India’s growing prosperity is increasing demand for environmental quality”. This reduces environment to a consumable product, aspired by the upper middle class and negates the battles ongoing in the hinterlands of India, where environment equates with livelihood and survival.

*The committee states in the preamble of the ELMA that conclusions were reached “after interacting with diverse groups of people in different parts of the country”. This may give an impression that the Law or the recommendations are based on wide consensus. This is not the case at all. There have been extremely limited consultations and no consensus in this entire exercise. Any output of the committee has to be looked clearly as a 6-member committee’s recommendations and nothing more.*

*Why are the people who are deeply affected by poor environmental governance like the tribals, the forest dwellers, fisherfolk, farmers, etc., not a part of this entire discourse on environmental management?*

As one reads on, the bias against communities and community protests gets clearer, starker and more disturbing. Along with communities, there is hardly any mention of impacts of destructive projects on forests, communities and wildlife. The lines are clearly drawn at compensatory afforestation, raised NPV, monetized afforestation, web-based monitoring, priced data bases, etc. But we are not to question the rationale behind several large scale destructive projects. To illustrate, in the case of Wild Life Protection Act, the report does not talk about habitat destruction due to development projects as one of the major threats to wildlife, but limits itself to hunting, poaching, man-animal conflicts and loss of corridors. Just to put things in perspective, in Arunachal Pradesh, Dibang Basin projects and Siang Basin projects can together submerge more than 23,000 hectares of prime wildlife habitat and affect several Schedule I species.

Some other issues too start getting too big to ignore. In the 113 page report, the word “speed” in context of speedy clearances gets repeated thirteen times. As we move from initial sagacious pages, the emphasis swiftly shifts from concern for environment to “time consuming clearance processes”. After notable recommendations in Forest Conservation Act, (succinctly critiqued here), the report seems to get down the business: Environmental and Forests Clearances. It is here that the superstructures NEMA (National Environment Management Authority) and SEMA (State Environment Management Authority) are introduced. Briefly, NEMA is proposed to be a full time board which will deal with a whole gamut of issues from Project clearances, monitoring, database creation, creation of standards, etc. CPCB will be subsumed under NEMA and it will function under the central government. SEMA at the state level will appraise Category B and C projects, monitoring and compliance, etc. SPCBs will be subsumed under SEMA which will be under the State Govt.

#### **Public Hearings (PH) According to the report:**

- Only environmental, rehabilitation and resettlement issues can be raised at the Public Hearing.



- Only “genuine local participation” is permitted. Mechanism to be put in place to ensure this.
- Public hearing can be entirely dispensed with if local conditions are “not conducive”.
- There is no necessity for holding a PH if project site is away from settlements, if the projects are in industrial zones or complexes, for power, mining and line projects, if the projects are of national or strategic importance.
- Appeal against NEMA & SEMA approval has to be filed first with the Board formed under ELMA (which is without any subject experts), which can summarily reject the appeal and levy heavy costs against appellants for pursuing frivolous matters.
- Gram Sabha Consent for Linear Projects not required, Settlement of Forest Rights not a necessity for Stage I Forest Clearance, no site inspection required for stage I forest clearance!

Let us see how these provisions, if accepted, will play out in real life, for example **in case of Assam, which faces downstream impacts of Hydropower projects in upstream Arunachal:**



*Protest March in Assam against Lower Subansiri Dam in Arunachal Pradesh  
Photo: KMSS*

- Assam will not be a part of Public Hearing for dams like Lower Siang, despite the fact that impacts of Siang basin projects will deeply impact Assam. This is because PH is restricted to distance from Project Site, and is delinked from the impact of the project! Diurnal fluctuations from the Siang project will re-

*sult in change in water levels by 22 feet near D'Erring Sanctuary, very close to Dhemaji District of Assam, every day in lean season, but affected people will not be able to participate in public consultations.*

- *Even population from downstream Arunachal or interested Ecologists, NGOs who have important points to make about the EIA will not be allowed as PH is limited to “Genuine Local Participation” (this violates NGT judgment about who is aggrieved by a project).*
- *The population of Arunachal, which finally does get to attend, will not be able to question the viability of the projects, lack of cumulative impact assessments, seismic threats, impacts of having too many projects in a cascade, safety issues, etc., as the scope of their inputs is limited to “environment and rehabilitation and resettlement issues.”*
- *Requirement of Public hearing itself can be done away with, if the “Local conditions are not conducive”. So in places like Tawang where Monpas are leading non-violent struggle against destructive dams, the public hearing can simply be cancelled and the project proceed!*

- *In fact there may be no public hearing for hydropower projects or for any power projects or river link projects!*

- *In case affected groups want to appeal against NEMA decision, they will have to file a complete case within 15-30 days of MoEFCC's order, which is extremely difficult for rural communities.*

- *If surmounting all obstacles, a case is filed, the petitioners better be wary as the board has powers to reject their appeal summarily and levy heavy fine on them.*

Does this look like a conducive, encouraging environment to bring out accountability, transparency and inclusive environmental governance? On the ground, this may mess up issues further, fuel conflicts and delay projects, rather than fast tracking them.

#### **Process of Project “Approval”:**

**All in Three months:** The Report has also recommended how the clearance process should be. This is possibly one of the most problematic areas of the report where all the focus is centered on getting the file move in full throttle. The report recommends Model TORs (Terms of Reference) for sections, which already exist.

It also assigns just 10 days for the NEMA to work on a site specific TOR failing which the proponent will use the Model TOR. Laying down TORs for an Environment Impact Assessment Study is one of the crucial parts of the clearance process. Many stalemates we witness today have their roots in inadequate TORs. In

fact in some developing countries, there is a Public Hearing at the TOR stage also so that affected communities and interested stakeholders can raise points to be included in the study. NEMA is supposed to recommend approval or rejection (with reasons) within two months of receiving the application. The basis of 2 months is not clear.

So what constitutes projects of national importance? Much debated Polavaram Dam which can submerge nearly 300 villages in three states or the GosiKhurd dam which can submerge 100 villages, hundreds of hectares of forest land and is mired in deep corruption charges, can be fast tracked for being of National Importance as they already have the tag of being "National Projects".

As for **Monitoring**, the committee stresses an ironically-named tool "Mandatory provision of voluntary disclosure"! Monitoring will be web-based, technologically assisted and with minimal need for site visits. This leaves absolutely no chance for any local affected community to be a part of monitoring, or be able to voice its concerns which may not show up on the hightech monitoring devices.

**Uberrima fides? It's the environment we are talking about! Ac-**

### *Faster Fast Track!*

*On this Clearance Rajdhani Express, there are some compartments which belong to the bullet train. Because nearly three months is too long a time to wait for projects which have the potential to change an entire eco region evolved over thousands of years, linear projects, projects of strategic importance and power and mining projects which are "engines of the nation's growth" are put on a separate fast track.*

proponent submits. According to the committee, "The law of insurance (Utmost Good Faith) supposes that the insurer knows everything about himself or about his activity to be insured; and the insurance company cannot be expected to know anything about the insured nor will it be able to verify all that is stated, speed being the

essence. If the statements made by the insured turn out to be incorrect or if material facts were suppressed or concealed, the insurance company could avoid its liability." (Emphasis added.)

**This stress in Insurance Law is entirely misplaced and non-**

**applicable in the realm of environment!**

Firstly, the Insurer owns his body, and there is a solid footing to believe him. In case of projects, say for example a dam about to submerge 5000 hectares of prime forest or displace lakhs of people, the proponent is making a claims about a public property on which many others

depend and which will be irreversibly impacted by the proponent. While in case of Insurance laws the Insurer does not have any concern for the Insured, in case of environment, it is exactly the opposite. The MoEFCC's prime duty is to safeguard the environment. MoEF cannot just "avoid its liability" like the insurance company as the Report suggests. We

### *What's Accountability?*

The only place where committee mentions accountability is with reference to speed of clearance, failing which the Chairperson of NEMA will be 'held accountable'. There is no accountability demanded about failing to address impacts of projects and fallouts on either the ecology or the people.

*There is absolutely no justification for using principle of Utmost Good Faith in the environmental realm, because most EIAs are fraudulent and compliances do not exist. Even currently, any false information provided at the time of appraisal process is a violation of Environment Protection Act and invites punishment. But there are examples by the dozen about how the MoEFCC refuses to take action even when clear evidence is presented to them about false information presented by proponent. This was violation of EPA 1986, how is this violation different than violation of ELMA?*

know that monitoring is the weakest link in environment governance and there no reason to believe that it will improve in any way by making it web-based. In the absence of this, taking proponent at his word about the information he provides at the time of clearance or monitoring is not workable, justifiable or acceptable.

Appeals against decisions of NEMA or SEMA: The primary space to file an appeal against decision of NEMA or SEMA is now taken by a board Chaired by a retired High Court Judge and two senior officials of the government and the National Green Tribunal is restricted to only judicial review. Merit-Based review and subject experts is one of the strongest assets of NGT, differentiating it from other courts and it is clear that this very role is being clipped by ELMA.

ELMA also envisages Special Environmental Courts at district level which will take "Cognizance of the serious offences only on a complaint by the officers authorized by the NEMA or SEMA." As an afterthought, these courts may also hear public only if they are satisfied that responsible authority failed to take action about their complaint in three working days. Taking action is a very vague term.

While the ELMA has provisions for "protecting officials acting in good faith", it has a penal provision to scare litigation by a provision which says "Punishment for false or frivolous complaints". So while the proponent will be treated in "Utmost Good Faith" aggrieved citizens will be treated with utmost skepticism and will have to: File appeal within 30 days, prove their bona fides, be wary

and careful about filing as it may be deemed "frivolous" and they may be fined!

The undercurrent of the HLC report is indeed that the environmental governance will have utmost good faith towards the industry and utmost suspicion towards the affected, the concerned or the civil society. There is no evidence till date to prove that this good faith in the industry is warranted. Even in current compliance system the developers are supposed to voluntarily submit six monthly compliance report, but nothing happens if they do not and no one reads them if they do. This undercurrent overshadows some useful recommendations of the committee.

The HLC report cannot be accepted in this form. Any review of environmental laws needs a consultative and consensus-based process and not a rushed work of two months by a biased panel with unclear and open-ended TORs. The characteristic of ELMA, NEMA and SEMA of excluding participation and not attempting to address issues related to inclusive governance has the potential to polarize environment discourse rather than making it swift and accountable.

The HLC remedy, unfortunately, seems more problematic than the malaise it seeks to treat. Reminds one of poet Sahir's words, जो दवा के नाम पे जहर दे, उसी चारागर की तलाश है..., with apologies to Sahir, since unlike in the poetry, here the executioner is not a loved one and is indeed ready to give poison in the name of medicine.

**-Parineeta Dandekar,**  
[parineeta.dandekar@gmail.com](mailto:parineeta.dandekar@gmail.com)

- [1] The report has already been critiqued excellently by various authors.

HLC – TSR Subramanian report: Climate blind or a climate disaster? Himanshu Thakkar, SANDRP <https://sandrp.wordpress.com/2014/12/15/hlc-tsr-subramanian-report-climate-blind-or-a-climate-disaster/>

T.S.R. Subramanian Committee' is interested in "Management of Environment" and not in "Protection of Environment".- Rohit Prajapati and Krishnakant (<http://counterview.org/2014/12/16/tsr-subramanian-committee-is-interested-in-management-of-environment-and-not-in-protection-of-environment/>)

Recipe for Dilution of Environmental Protection Regime: Report of MoEF's Committee to Review Environmental Laws- Shripad Dharmadhikary (<http://shripadmanthan.blogspot.in/2014/11/recipe-for-dilution-of-environmental.html>)

Full Report of MoEF's Committee to Review Environmental Laws Confirms Initial Apprehensions: Recipe for Dilution of Environmental Protection Regime- Shripad Dharmadhikary: <http://shripadmanthan.blogspot.in/2014/12/full-report-of-moefs-committee-to.html>

Executive's Environmental Dilemmas: Unpacking a Committee's Report: Manju Menon and Kanchi Kohli: <http://www.epw.in/commentary/executives-environmental-dilemmas.html>

- [2] Members include: Shri Vishwanath Anand, Former Secretary, Justice (Retd.) Shri A.K. Srivastava Former Judge of Delhi High Court, Shri K.N. Bhat, Senior Advocate, Supreme Court of India. Secretaries: Shri Bishwanath Sinha Joint Secretary, MoEF&CC, Shri Hardik Shah, Member Secretary, Gujarat Pollution Control Board

- [3] [1] The Environment (Protection) Act, 1986; [2] The Forest (Conservation) Act, 1980; [3] The Wildlife (Protection) Act, 1972; [4] The Water (Prevention and Control of Pollution) Act, 1974; [5] The Air (Prevention and Control of Pollution) Act, 1981; [6] The Indian Forest Act, 1927.

As pointed out by Rohit Prajapati in his excellent critique, the HLC has also suggested changes to [1] The Forest Right Act, 2006 and [2] The National Green Tribunal Act, 2010, though these were not part of HLC's TOR.



## HLC – TSR Subramanian report: A Climate-blind assessment

The Report of the High Level Committee to review various Acts administered by MoEF & CC (the report hereafter) has been submitted [1] on Nov 18, 2014[2], though it has been made public only in early Dec 2014. The High Level Committee (HLC) headed by former cabinet secretary T. S. R. Subramanian faced a well-deserved criticism from its inception [3].

At the outset it should be mentioned that the HLC report is replete with recommendations for expediting environmental clearance, fast tracking projects and they show anti-environment bias, as reflected in the use of “Single Window clearance”, “Fast track clearances”, “making business easier”, “utmost good faith” to name only a few phrases frequently used by HLC. However, this article is limited to commenting on the direct and indirect implications of the HLC report on climate change concerns.

While the mandate of the HLC report was “to review various Acts administered by MoEF & CC”, as the title page of the report says, the report rightly acknowledges that such a review would entail analysis of environmental governance in India. And any review of environmental governance in 21<sup>st</sup> century would be considered grossly inadequate if it does not address Climate Change when climate change is the biggest overarching environmental concern of our times which is dictating our developmental priorities and options. As the world moves from deeply disappointing negotiations at Lima (Peru), symbolizing the continued let down of recent COPs (Conference of Parties) under United Nations Framework Convention on Climate Change, to the next (21<sup>st</sup>) COP at Paris in 2015, it would be useful to see the HLC report from the perspective of Climate Change.

**HLC is climate blind** Scanning through the report for the phrase “climate change”, one finds that it appears just once in the report outside the name of the commissioning ministry (Ministry of Environment, Forests & Climate Change), in para 1.3 in preamble chapter, where it says: “We need to take heed of the very recent Intergovernmental Panel on Climate Change (IPCC) call from Copenhagen that the earth is flirting with danger – the alarm flag has been hoisted.” That reference, one would have thought, would lead HLC to give more importance to Climate Change. But from here on, even the word climate appears just once in the report (para 7.10.4 (e)) and it has nothing to do with climate change!

The other phrase generally used synonymously with climate change is global warming. This phrase too appears just once in the preamble in para 1.7. The reference gen-

erates some hope when it states “Global warming, environmental degradation, loss of biodiversity and potential for conflict growing out of competition over dwindling natural resources are the current focus of humanity and should occupy the centre stage in policy formulation.” Indeed, Climate Change is “current focus of humanity and should occupy the centre stage in policy formulation”. But it seems that the HLC has nothing to do

with this concern as there is no reference of Climate Change or global warming in any subsequent part of the report or its recommendations.

**Why HLC is a climate disaster** That the HLC report seems Climate Blind, like many policy

documents and decisions in India is one thing, how can it be blamed for inviting a climate disaster? Let us see how.

Indian government is proud of its **National Action Plan on Climate Change** which is supposed to drive our developmental plans and priorities during the ongoing 12<sup>th</sup> Five year plan and beyond. There are several national missions, including National Mission for a Green India, National Mission for Sustaining the Himalayan Ecosystem, National Solar Mission, National Water Mission, National Mission for Sustainable Agriculture, National Mission for Enhanced Energy Efficiency and National Mission for Sustainable Habitat, all of which have far reaching implications for environment governance and climate change. The Prime Minister himself chairs the PM Council on Climate Change, which is a policy making and national monitoring body.

The 12<sup>th</sup> Five Year Plan specifically gives importance to climate change when it says (para 1.42): “It is known that India will be one of the countries most severely affected if global warming proceeds unchecked and as such appropriate domestic action is necessary. A National Action Plan for climate change has been evolved with eight component Missions. Implementation of these missions must be an integral part of the Twelfth Plan.”

Here it will be illuminating to quote what the HLC chairman said recently [5]: “Villages in Gujarat could have got the water five years earlier had there been no andolan. Though some people lost their land in Madhya Pradesh (MP), the result is that half of MP and three-quarters of Gujarat today has access to water. So, there is some cost attached to everything. Some larger force will have to look at it. Ultimately, it is all about striking a balance. We are suggesting that the government should not go after development blindly but also not let people of one village blackmail it by shouting “my right, my right”.

*The HLC Report takes no cognizance of any of the existing plans or programs related to Climate Change and Environment. Nor does it see the ecology, forests, rivers, biodiversity from climate change perspective or appreciate how vulnerable groups would be affected by projects which would impact ecology, forests, rivers, biodiversity & other natural resources.*

*In fact, HLC completely ignores the fact that millions of Indians directly depend on these natural resources. HLC seems to have no clue about this.*

Mr. Subramanian here is clearly referring to Narmada Bachao Andolan agitation against the Sardar Sarovar Dam on Narmada River. This is not only grossly ill-informed opinion, it shows his shocking anti-people and anti-people's movement bias.

The HLC was expected to consider populations that are vulnerable due to climate change and also affected by destruction of environment. In fact, the entire HLC report has nothing to do with people or populations, leave aside identifying the vulnerable populations and giving affected people any effective say in environmental decision making process. Absence of such role for people is one of the key reasons for current environmental problems in India, as is apparent in any of the environmental and natural resources conflict. But HLC analysis not only ignores this lacuna, HLC recommendations are for further reducing participation by suggesting that public consultations can be done away with in most projects.

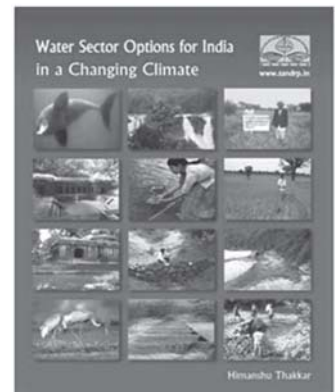
Let us see some further direct implications of HLC recommendations with respect to climate change. The HLC report is essentially dealing with Forests (Chapter 5), Wildlife (Chapter 6), Biodiversity (Chapters 5, 6 & 7), Environmental governance (Chapter 7). It makes a large number of recommendations on these issues and all of these have implications for climate change and how the populations vulnerable to climate change would become further vulnerable when these resources are taken away from them. But here again HLC sees no need to mention climate change. For example, forests are a major storehouse of carbon and HLC recommendations are going to lead to massive deforestations, thus increasing the release of stored carbon and reducing the carbon absorption, besides taking away the adaptation capacity of the forest dependent communities, but HLC finds no merit or reason to mention that. Even in section 7.9.2

where HLC lists the expertise that NEMA (National Environmental Management Authority) will have, there is no mention of climate change.

It is in this context that we need to view the HLC recommendations for faster and single window clearances with advocacy for utmost faith in the project developers, for relaxing the environmental governance on several counts, for fast track clearances for mining, power, line projects and large number of other projects, for recommending relaxation of public consultation process in most of the projects, for insulating the officials and the ministers (the executive) from environmental governance, for delaying the legal challenge process to clearances and also for debarring the legal challenge on merit. These HLC recommendations are all going to help dilute environmental governance and hence invite greater environmental disasters and by implication, climate disasters for India.

The claim of HLC chairman that HLC had tried "to optimize the efforts to balance developmental imperatives causing least possible damage to environment" is clearly unfounded. The remarks of the Union Environment Minister Prakash Javdekar, while accepting the report from HLC, that "the Report was a historic achievement that would strengthen processes to balance developmental commitments and environment protection. The recommendations of the Report would enhance Ministry's efforts to avoid undue delays and ensure transparency in clearances and implementation of projects" is deeply disappointing and HLC report seems to begin an era where environmental conflicts will only increase and deepen.

It seems that HLC report will invite greater climate disaster for India, particularly for those who are poor and already vulnerable to challenges posed by climate change. The HLC report should be rejected for this reason alone, besides its other acts of omissions and commissions.



*SANDRP's publication on Climate Change and options in Water Sector*

**-Himanshu Thakkar**

([ht.sandrp@gmail.com](mailto:ht.sandrp@gmail.com)), SANDRP

[1] See full report: <http://envfor.nic.in/node/4610>

[2] See: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=111520>

[3] For example, see: <https://sandrp.wordpress.com/2014/09/26/review-of-environment-laws-is-necessary-but-the-ts-subramanian-hlc-lacks-credibility/>; <https://sandrp.wordpress.com/2014/10/10/strengthen-and-not-dilute-environment-laws-submission-to-the-mefs-hlc-to-review-environment-laws/>; <http://www.assamtribune.com/scripts/detailsnew.asp?id=nov2614/state050>

[4] For example, see: <http://shripadmanthan.blogspot.in/2014/12/full-report-of-moefs-committee-to.html> and Executive's Environmental Dilemmas: Unpacking a Committee's Report by Manju Menon and Kanchi Kohli in Economic & Political Weekly, Dec 13, 2014, among others

[5] For full interview, see: <http://www.downtoearth.org.in/content/my-report-not-industry-report-t-s-r-subramanian>

## Celebrating the story of Koel-Karo resistance: KKJS gets Bhagirath Prayas Samman at first India Rivers Week

Koel Karo Jan Sangathan (KKJS) is one of the recipients of the first Bhagirath Prayas Samman, which was given at the hands of Justice Madan Lokur of Supreme Court of India. The ceremony was a part of the first ever India Rivers Week (IRW), held in New Delhi between 24<sup>th</sup>- 27<sup>th</sup> of November 2014. The Award includes a citation, a scroll, a shawl and a cash prize of Rs 60 000/-. KKJS is one of the three awardees and the only organisation to get this award this year. IRW was organised by Peace Institute, WWF-India, INTACH, Toxics Link and SANDRP, Shri Ramaswamy Iyer chairing the organizing committee. KKJS's work in protecting Koel and Karo River and the tribal identity of the region in the face of huge odds and skewed power balance is an inspiration for several groups working for rivers across the country.



KKJS Activists receiving Bhagirath Prayas Samman Award from Justice Madan Lokur **Photo: IRW**

The citation for the award to KKJS says: *"The Organisers of India Rivers Week 2014 have great pleasure in awarding the BHAGIRATH PRAYAS SAMMAN to Koel Karo Jan Sangathan in appreciation of its dedicated, valiant, untiring efforts to safeguard the integrity of the rivers Koel and Karo (Jharkhand). Koel and Karo are tributaries of river Brahmani in the state of Jharkhand threatened by the Koel Karo hydroelectric project. Koel Karo Jan Sangathan was born in 1976 as a community mobilization effort to conserve their sacred sites and to look at alternative development paths in place of the proposed Koel Karo dam. The Sangathan has carried on a long and heroic struggle in the face of enormous pressures from the vested interests, battling tremendous odds to forge one of India's foremost resistance movements to save rivers, riverine communities and their culture. In Feb 2001, 8 people died in police firing during the struggle.*

*The project remains cancelled due to the struggle. The Sangathan has demonstrated the use of many innovative methods of struggle including people's curfew and people's check points. The Sangathan has successfully mobilised support from villagers, academicians and political parties to ensure that their rivers are still flowing free and pristine. Women of the river basin have played a key role in the Sangathan's work. It is an honour to recognize and celebrate the extraordinary and truly Bhagirathan efforts of the Koel Karo Sangathan in ensuring the integrity of the rivers Koel and Karo."*

**A brief story on the long and arduous struggle** According to the people of Munda tribe in Jharkhand, the whole planet was once under water. It is Sing-Bonga, the god of the Mundaris, who fashioned the earth with some clay from the bottom of the ocean. This he then populated with plants, trees, birds, animals, and finally, with human beings.

Thus the Mundaris live on the land gifted to them by the Father of all human beings. Over the centuries, the already-sacred landscape became dotted with clusters of sasandiri - the stones marking the resting places of ancestors located at places specified by Sing-Bonga.

For much of the latter half of the 20th century, the Mundaris had to wage a long and hard struggle against the State to protect this sacred trust. Unlike how many other similar stories go, this ends in victory. That too, is a testament to the strength of the Mundaris and their deep connection with their lands.

**The project:** The story begins in the 1950s, when a hydro-electricity project was first conceptualised by the Bihar State Electricity Board [1]. This project aimed to generate 710 MW of electricity by the construction of two earthen dams at a then-estimated cost of Rs 157 crores [2]. Of these, one was a 55-m high dam on north Karo and the second was a 44-m high dam on south Koel River.

The real cost of the project was far more than what any project report could budget for, and this was to be paid by the soon-to-be displaced Munda tribals. The 1973 project report estimated that 125 villages would be affected. This was contested by the locals who stated that 256 villages would be affected [3]. Also at stake were approximately 152 sarnas (sites for ritual festivities) and 300 sasandhris (Mathews, 2011).

**The people:** The Mundari were largely ignored when the project was being finalised. Roads were built and offices established without consulting the villagers. It is only when land began to be bought up that the people of



the affected villages came to know of the plans for their ancestral lands. At that time, probably because they were unaware of the full implications of the project, the Mundari were not opposed to the dam in principle. What disturbed them was the opacity and corruption in the land acquisition.

**The struggle:** This corruption caused the residents of the Koel and Karo rivers to form a group each to safeguard their interests. The dissatisfaction increased when the survey work led to damage of crops in the area. The two groups came together in 1976 as the Koel Karo Jan Sangathan (Koel Karo People's Organization) - KKJS to offer united resistance to the construction work and demand that work be entrusted to local people. It is also around this time that incidents such as deaths due to drowning near Kutku dam and lack of proper rehabilitation for the displaced of Subarnarekha dam opened the Mundaris eyes to the danger that this construction posed to their way of life. Extensive agitation in the following years led to work being stopped in 1979 till the issues could be resolved. The following year responsibility for the project passed from the Bihar State Electricity Board to the National Hydroelectric Power Corporation, now NHPC Ltd, causing a setback to the negotiations.

Till 1984, the villagers successfully prevented any work on the site using a variety of non-violent means despite the presence of troops sent in by the State officials to enable the land acquisition officials. The Mundharis worked to prevent the troops and officials from having access to water, firewood and even preventing them from going out into the forest to defecate. "We told them they can't defecate on our sacred groves", said Soma Munda of the KKJS in an interview [4].



12 people were killed in firing at Tapkara Feb 2001  
memorial Photo by Shripad Dharmadhikary.

In August 1984, the Supreme Court ruled against the use of force to acquire land. The Government of Bihar then offered to build two 'model villages' for the Mundharis to decide whether they would agree to relocate. The KKJS retorted that it would first be essential to relocate the sasandiri. The two 'model villages' were never built, and things were at a standstill for the next decade.

Matters picked up again in 1995 when the then Prime Minister, PV Narsimha Rao declared his intention to lay the foundation stone of the Koel Karo project. The Mundaris resisted this by astonishingly simple and effective means- nearly 25,000 people lay down on the roads effectively blocking access.



Koel Karo Rally, photo from internet

In December 2000, the state of Jharkhand was carved out of Bihar. Just two months later, in February 2001, the police fired 75 rounds (unofficial estimates say 150) on a peaceful crowd at Tapkara killing eight people and injuring more than 30 (PUCL,2002). The Tapkara shooting understandably sparked censure from the country and may have forced the government's decision regarding the dam.

**The result:** In August 2003, the Koel Karo project was scrapped, ostensibly for financial reasons; The price had escalated from Rs 157 crores in 1976 to Rs 3,000 crores in 2003 [5]. However, the KKJS as well as several others who have been linked with the struggle consider the sustained resistance to be the primary reason for the project being scrapped. It took another seven years for the government to shut down all offices and reassign staff. On 21<sup>st</sup> July 2010 the Koel Karo project became history.

**The reason why:** Koel Karo is today one of the very rare instances in India where tribal peoples have successfully persuaded the government to shelve a sanctioned project. This is not due to any dearth of such similar struggles by equally determined people throughout the country. What is the difference?



Soma Munda ji, Integral part of the struggle, addressing the audience at IRW **Photo: IRW**

One reason put forth by anthropologists is the strong sense of tribal identity. The Mundari have a strong and democratic tribal leadership system which continues today. They have a history of asserting their rights since the 19<sup>th</sup> century. The Chhota Nagpur Tenancy Act (1903) which safeguards the rights of tribals to their land is just one of the instances where they have brought pressure to bear on the government to maintain their tribal identity. In that respect, they see very little difference in colonial rule and the current government, both being secondary to tribal government. This is the reason that the Koel Karo struggle was able to mobilise people in their thousands and present such a united front. While the tribal governance may account for the united resistance put up by the Mundharis, their motivation however came from a far older source.

It came from Sing-Bonga Himself. The Mundharis quite simply had no option but to hold on to their land. It is here that their ancestors were, and all through the resistance, not once did Sing-Bonga appear in a dream and give them permission to relocate the sasandiri. This deep and inviolable connection with the land was key to the struggle and manifested itself in the resistance slogans. Initially, the slogan was “*Jaan denge par jamin nahin denge* (we will give our lives, but not our lands)”. After Tapkara, they changed it to “*Jaan bhi nahin denge, jamin bhi nahin denge, dam ko rok lenge*” (we will give neither our lives nor our lands but we will stop the dam)”.

The struggle was lead by a number of tribal and non tribal leaders, notable amongst them is Ms. Dayamani Barla, who was involved with Koel Karo since 1990s. She says, “The natural resources to us are not merely means of livelihood, but our identity, dignity, autonomy and culture have been built on them for generations. These communities will not survive if they are alienated from the natural resources. How is it possible to rehabilitate or compensate us?” [6]

Later when Ms. Barla was imprisoned while upholding tribal rights, she wrote from the prison, “*I never overlooked the questions raised by the Jharkand people. The flowing water of the Koyal, Karo and Chata rivers is a witness to this. I learnt to write with my fingers in the mud and sand of this land. On the banks of the river Karo, while grazing my sheep, I learnt to bathe and swim. The shade of grass and trees covered with dew filled in the sky, gave me love.*”

Shripad Dharmadhikary of Manthan puts the success of this movement down to persistence. The Mundharis successfully kept up an unrelenting and non-violent resistance for nearly three decades. And finally, Dharmadhikary points out one overwhelming lesson that present and future struggles can learn from Koel Karo. ‘*Such struggles,*’ he says ‘*can be won.*’

**Chicu Lokgariwar**, [chicu.l@gmail.com](mailto:chicu.l@gmail.com)

### Further Reading:

Bela Bhatia, Resistance and Repression, Frontline 2001 <http://www.frontline.in/static/html/fl1805/18050430.htm>

Kamayani Bali Mahabal, Dayamani Barla, The Voice of Jharkhand <http://kractivist.wordpress.com/tag/dayamani-barla/>

About Koel Karo Struggle from Friends of Narmada <http://www.narmada.org/related.issues/koel.karo/koel.karo.appeal.html>

Vasavai Kiro, Smitu Kothari, Savyasaachi, Culture, Creative Opposition and Alternative Development: Sustaining Struggle in the Koel-Karo Valleys <https://icrindia.files.wordpress.com/2012/03/29-culture-creative-opposition-and-alternative-development3.pdf>

[1] Mathews Rohan. 2011. The Koel Karo People’s Movement in Eastern India. <http://www.ritimo.org/article877.html>

[2] The Telegraph, 05 August 2003. *Dam warriors in praise for son-of-soil* [http://www.telegraphindia.com/1030805/asp/jamshedpur/story\\_2234167.asp](http://www.telegraphindia.com/1030805/asp/jamshedpur/story_2234167.asp)

[3] PUCL Bulletin, Sept 2002. The adivasi struggle for land rights at Koel-Karo. <http://www.pucl.org/Topics/Industries-envirn-resettlement/2002/tapkara.html>

[4] Down to Earth. Leaders renege, but tribal collectivism holds forth. July 31, 2003. URL: <http://www.downtoearth.org.in/node/13200>

[5] Basu Maushumi. 21 Oct 2008. BBC News. *Indian woman with a steely resolve* [http://news.bbc.co.uk/2/hi/south\\_asia/7610127.stm](http://news.bbc.co.uk/2/hi/south_asia/7610127.stm)



## Dr. Latha Anantha, CPSS and River Research Centre: For the rivers to flow..

This is an attempt to introduce the readers to the exemplary work of Dr. Latha Anantha (and that of the River Research Centre and Chalakudy Puza Samarakshan Samithi team) as the recipient of the first Bhagirath Prayas Samman for “exemplary capacity for combining sound research with the mobilization of community, political and state agencies, and for ushering in a unique methodology of consensus- based conservation of rivers in the country”. Latha Chechi, RRC and CPSS team have been close associate of SANDRP since a long time and it is matter of great happiness for us to see them being rewarded for their consistent efforts.



Ravi from CPSS receiving Bhagirath Prayas Samman Award on behalf of Dr. Latha, from Justice Madan Lokur **Photo: IRW**

Latha is an agricultural scientist by education and holds a doctorate in the subject. But how did she start working for rivers? In 1989, Latha was a part of a nature camp which took her & many like her into the Silent Valley National Forest. Then, Silent Valley National Forest was declared as a protected area only 4 years back after protracted, & possibly one of India's foremost anti-destructive dam people's struggles.

It was here that, under the guidance of Dr. Sathish Chandran Nair, Latha saw that while forests of Silent Valley are the birth place of beautiful river Kunti, Attapadi region was devoid of forests and most streams were dried up. The Bhavani River was hardly flowing there. The contrast was self-revealing. It was here that the connections between forests and water and rivers and tribals and wildlife were forged. She says she was a changed person after witnessing all this.

In 1995, Latha married Unnikrishnan, also an ardent river lover and activist (and a poet!) and together they conducted several nature camps for children and young adults all over Kerala, always coming back to the Chalakudy River and her thick forests near Vazachal

and around. By then, she had made friends not only with the river, but with the Kadar tribes who lived with the Chalakudy, on her banks, one amongst them was young Geeta. The learning and exploring continued for a few years, until in 1998 they heard that a dam project on Chalakudy, the Athirappilly dam, had received sanctions from Delhi. They were shell shocked. Back in 1998, this couple and their friends like Ravi, in a remote part of Kerala knew nothing of EIA Notification, sad monotony of sham EIAs, compromised EIA agents, project-friendly meetings at MoEF, nothing. But they persevered.

Helped by stalwarts like Dr. V.S Vijayan, Dr. Sathish Chandran Nair, this tenacious group slowly put the jigsaw puzzle together, piece by piece. They understood the EIA Notification of 1994, got hold of the EIA and saw how the Kadar tribe, living just by the river was not even mentioned. They say how the fact that Chalakudy was already dammed six times before it comes to Athirappilly and how 35% of its flows are already diverted was hidden from the EIA. Kadar tribal settlement was mentioned incorrectly outside the project impact area. Latha by then also realized that the mandatory public hearing was also not conducted for this project.

Now there was no stopping this group, which also included hydrologist Madhusoodan and botanist K Amithab Bachan. Ravi and Unni filed a case in Kerala High Court in 2001, challenging the EC granted to Athirappilly and Latha & team did all the research, putting together a water-tight case. The court ruled in favor and asked for a fresh public hearing.



Pubic raising issues at Public Hearing of Athirappilly Project **Photo: CPSS**

Latha and friends already had strong ties in the Chalakudy region. This was not a single day affair, but



a trusted relation built over years. The tribals knew this team's love for them and their river. They listened and they discussed. They were aghast at the dam building plans. The public hearing saw overwhelming participation not only from the tribal communities, but from scientists, shop keepers, hotel owners, farmers, gram panchayat members, etc. The District Collector witnessed this and would not push the project until a river basin study was done, possibly the first such in India.

There was a lull in the meantime, giving a false sense of security for these Chalakudy lovers. But it also gave them time to get introduced and work with friends like Himanshu Thakkar from South Asia Network on Dams, Rivers & People (SANDRP), Shripad Dharmadhikary from Manthan with whom they had been in touch for long, supporters like Dr. Ramaswamy Iyer, etc. Through SANDRP, in 1998 itself, the group had made submission opposing the Athirappally project to the World Commission on Dams. The CPSS, in collaboration with SANDRP, organized a meeting on the report of the World Commission on Dams at Thrissur on June 22-23, 2002. A meeting against Interlinking of Rivers in Kerala was organized by CPSS and SANDRP on July 12-13, 2003. A book *"Tragedy of Commons: The Kerala Experience in River Linking"* was published in 2004 by River Research Centre & SANDRP.

But Athirappilly dam plan put up its head again in February 2005 when the project gained Environmental Clearance through back door from the MoEF. This time the EC was challenged by none other than the young Geeta, the Kadar woman, living on the banks of the Chalakudy who filed a PIL in the High Court of Kerala in April 2005 challenging the new Clearance granted to the project. The Athirappilly Gram Panchayat President also filed a PIL on EIA violations. The High court again upheld the plea and ordered for a public hearing afresh! This public hearing in 2006 witnessed massive turnout of the tribal community members.



*Athirappilly Falls on the Chalakudy River*

In the meantime, Latha also wrote to Jairam Ramesh to intervene in the issue and Unni and Lathachechi met

him personally when he was in Kochi. He issued stop Memo to KSEB on January 4<sup>th</sup> 2010. After this KSEB again approached MoEF.

This proposal was again recommended environmental clearance by the Ministry of Environment, Forests & Climate Change's Expert Appraisal Committee (EAC) on River Valley Committee in their meeting in May 2007. Once again PIL was filed in HC challenging the EIA in 2007 and is still pending in the HC. Following directions by Kerala High Court to KSEB, the project came back before EAC in March 2010 and was again discussed in April 2010 and July 2010, till when no conclusion could be reached by EAC and EAC had asked for more information and clarifications. There is no mention of the project in any of the minutes of the subsequent EAC meetings<sup>1</sup>.

Since then there has been a lull on the plans though it has not died out completely. River Research Centre, though existing since many years back informally, was formally registered as a Trust. RRC, Chalakudy Puzha Samrakshan Samiti and Latha's dedication is one of the strengths of Athirappilly waterfalls, which would have been dammed and dried long before if it was not for this people-led, nonviolent struggle. The Project was discussed again in the 80<sup>th</sup> EAC Meeting in December 2014, ironically just after Latha received her award. RRC has sent a submission to MoEF&CC. Latha Chechi and the team is again ready for a new battle.

Latha was simultaneously working on campaign against the proposed Pathrakkadave HEP across Kunti River near Silent Valley National Park on several angles such as community mobilisation, EIA, Public hearing, etc. The very destructive dam project has been stalled. There is huge public sentiment and pressure against the project.

Since early 2000, she has also been involved in education program for children along the banks of the Chalakudy River. RRC and the Schools for Rivers program were instrumental in forming a 'Kuttikootam' (meaning a group of children) of more than 50 children aged between 10-20 years who would set out to know more about their panchayath, its natural resources, human resource potential, culture, folklore, institutions, governance, destruction of environment, problems faced by the river and related livelihoods etc.

While working on environmental governance and advocacy, CPSS has also worked on novel and promising initiatives like **Reservoir Reoperation Model**. The project is steered by CPSS and Forum for Policy Dialogue on Water Conflicts in India of which Latha is a Steering Committee member. This model is specifically aimed at dammed rivers, where impacts are supposed to be a way of life. In the much-dammed Chalakudy, RRC, with its dedicated members like Ravi and others demonstrated how operations of a hydropower scheme



*Latha conducting Schools for Rivers Program*

can be and should be changed to maintain summer irrigation in the downstream and also rudimentary flows for the river. This is far from perfect, but a great step in the direction. At the heart of these processes is joining the dots and bringing people together: from power company, irrigation department, farmers, local self-governments, etc. In April 2013, the CM of Kerala agreed to increase the off peak generation of Poringalkuthu Left Bank Hydro Electric Project<sup>2</sup>.

Latha also played an active role in the **Save Western Ghats Movement group**. In a meeting of this group at Kothagiri in Keystone Campus, Environment Minister Jairam Ramesh made the announcement of Western Ghats Expert Ecology Panel, after relentless advocacy by the group, including Latha. The subsequent Panel under the leadership of Dr. Madav Gadgil and what followed had deeply affected the environmental discourse in India. The way MoEF and the Government of India kept the Gadgil report secret was wrong, underlining the unwillingness of the administration to take any visionary or long term actions towards people-led environmental governance. Along with organization like Goa Foundation, RRC was a part of the petition filed in the NGT against this opacity and for implementation of the Gadgil Report. The court ordered the MoEF to make the Gadgil report public. The din that followed, especially in Kerala, was massive and bewildering. Gadgil Report was then subsumed to the problematic Kasturirangan Committee, which decision itself was flawed. Powerful interest lobbies, including religious groups, did not miss a single opportunity at misleading locals about eco sensitive areas. If Western Ghats was tense, Kerala was in the eye of the storm. At this juncture, Latha chechi came out and wrote about Kasturirangan Committee report<sup>3</sup> as one of the reason for political polarization for Kerala, and asked for a sane and democratic approach through

the Gadgil Report. Latha organised meetings as well as participated in many meetings and debates organised on the subject all over Kerala.

She has also been working endlessly on the issue of **eflows**, from upcoming as well as existing dams and has engaged consistently with the MoEF on this. Way back in 2009 RRC, along with SANDRP and Svaraj organized the first ever consultative National Workshop on Eflows. She has also co-authored the first Primer on Environmental flows, aimed not at scientists, but at community groups and activists who are more likely to urge for the implementation of the concept of eflows<sup>4</sup>.

While keeping a balanced, soft spoken and people friendly stand she has not shied from criticizing consultants like NIH<sup>5</sup> and CIFRI for their shoddy eflows assessments. She has served on several government appointed committees in Kerala and has been a resource person for countless programs on rivers and forests. She also serves as the South Asia Advisor, International Rivers and is the Ashoka Fellow, 2012.

Latha's story, intrinsically linked with River Research Centre, CPSS, Chalakudy River and beyond is a story of soft spoken courage. It is a story of bringing people together and looking at a river as a shared heritage, not only as a part of a conflict.

Today, Latha is undergoing a challenging time physically, undergoing several rounds of treatments. But mentally, she is the same strong and sensitive river woman of the Western Ghats. She is a natural recipient of the Bhagirath Prayas Samman and we look forward to having her back with us soon in her full form: singing, laughing and loving rivers as she does.

**- Parineeta Dandekar**

*(parineeta.dandekar@gmail.com)*



*Latha Chechi with her Kadar tribal friends, who are also leading the stir against Athirappilly Dam Photo: Author*

- 1 [http://sandrp.in/env\\_governance/EAC\\_meetings\\_Decisions\\_All\\_India\\_Apr\\_2007\\_to\\_Dec\\_2012.pdf](http://sandrp.in/env_governance/EAC_meetings_Decisions_All_India_Apr_2007_to_Dec_2012.pdf)
- 2 <http://sandrp.wordpress.com/2013/09/28/public-pressure-leads-to-changes-in-kerala-dam-operation/>
- 3 <http://sandrp.wordpress.com/2013/11/22/kasturirangan-report-a-blueprint-for-political-polarization-in-kerala/>
- 4 [http://www.internationalrivers.org/files/attached-files/eflows\\_primer\\_062012.pdf](http://www.internationalrivers.org/files/attached-files/eflows_primer_062012.pdf)
- 5 <http://sandrp.wordpress.com/2013/09/30/nih-roorkees-workshop-on-eflows-where-is-the-credibility/>

New Publication from SANDRP!

## Headwater Extinctions – Impacts of hydropower projects on fish and river ecosystems in Upper Ganga and Beas basins

“I can’t help see a few things here, as perhaps you do? Bluntly put, I see slush funds being dangled to a whole range of possible collaborators. The kindest term I can find for them is ‘brokers’.”

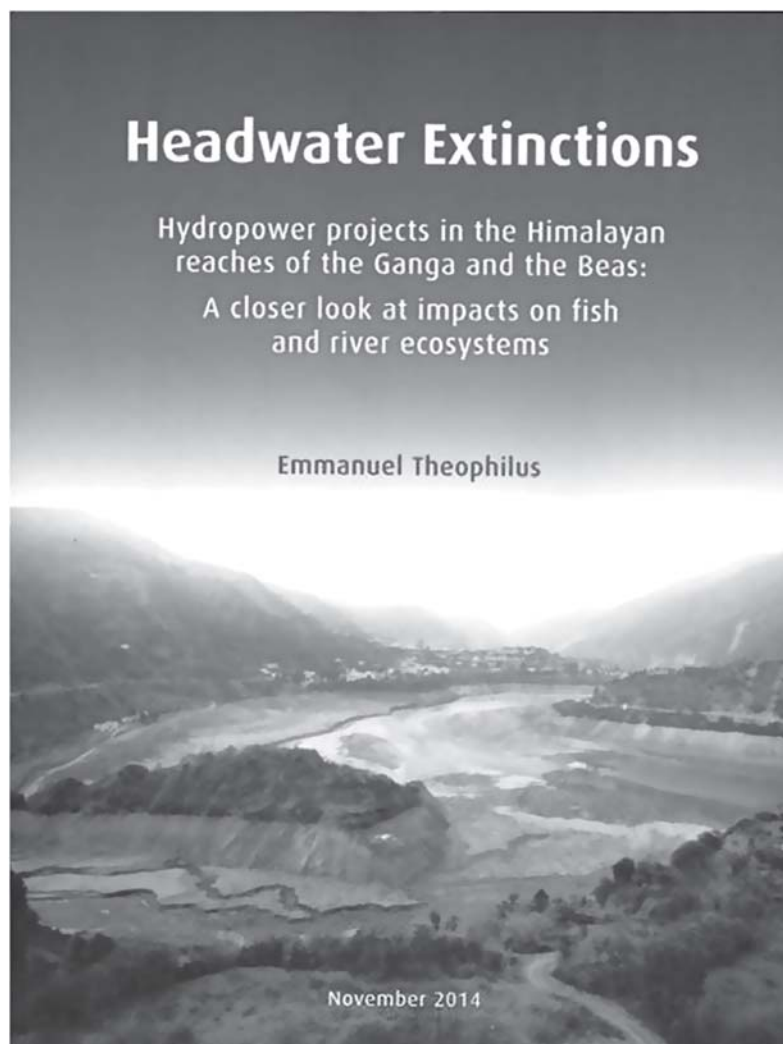
SANDRP has just published a new report: “Headwater Extinctions- Hydropower projects in the Himalayan reaches of the Ganga and the Beas: A closer look at impacts on fish and river ecosystems”, authored by Emmanuel Theophilus, which was released at the India Rivers Week held during Nov 24-27, 2014. Headwater Extinctions deals with impacts of hydropower projects in Beas basin in Himachal Pradesh and Alaknanda-Bhagirathi basins in Uttarakhand on river ecosystem and its components, mainly fish. While the harrowing impacts of hydropower projects on local livelihoods and social systems are being realized gradually, we are yet unclear about the extent of impacts of these so-called green projects have on fish and aquatic biodiversity.

The author Emmanuel Theophilus is based in the Dhauliganga Valley and is an avid mountaineer, storyteller, ecologist and our ally. He has extensively travelled the two valleys, talked with locals and has analysed the EIAs and EMPS of the projects.

We are very glad to publish the report as a first of the hopefully many steps to be taken to understand and address this important issue.

Soft copy of the report is available at: [http://sandrp.in/Headwater\\_extinctions221114.pdf](http://sandrp.in/Headwater_extinctions221114.pdf)

Please write to us if you need hard copies at [ht.sandrp@gmail.com](mailto:ht.sandrp@gmail.com). Suggested contribution is Rs. 200.



NOTE: Please note that we are continuing the publication of DRP as a non RNI publication, so this is for private circulation only. DRP is not for sale. Those who have subscribed will continue to get printed copies till their subscription lasts. For any voluntary support towards continuing publication of DRP, please write to: [ht.sandrp@gmail.com](mailto:ht.sandrp@gmail.com).

Edited by Himanshu Thakkar at 86-D, AD Block, Shalimar Bagh, Delhi - 88.  
Printed at Sun Shine Process, B -103/5, Naraina Indl. Area Phase - I, New Delhi - 110 028