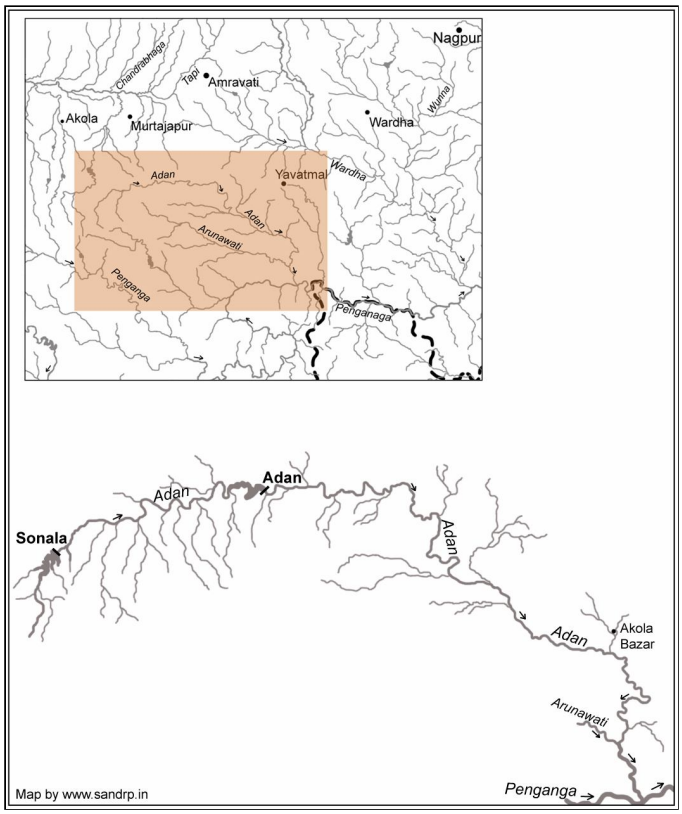
The story of Samvardhan from Vidarbha

Reviving Adan River through conservation and employment generation

These days, 'Integrated Water Resource Management' is put forth as a panacea to nearly all problems faced by the water sector. The scope of this term is so broad that it can be interpreted in convenient ways by a number of agencies, be it research and community organisations, Governments or financial institutions like World Bank and ADB. As a result, water privatization, increasing water tariffs, changing water allocations are also being justified under the guise of Integrated Water Resource Management.

'Vidarbha' immediately conjures a vision of farmer suicides, crumbling social systems and large tracts of barren land. Vidarbha is much more than that. Most of the area comes under 'assured rainfall region', has supremely fertile soils, huge tracts of forests and diverse tribal communities.



However, there are some initiatives which, without claiming to adhere to principles of IWRM put forth by any organization, are integrating numerous facets of water and natural resource management into an approach. One such initiative which has gathered strength during the past 5 years is ***Adan River Restoration*** effort, led by a small team of committed individuals from Vidarbha region in Maharashtra.

Districts like Bhandara from Vidarbha have had a remarkably rich tradition of community tanks which supply water to farms and villages, made and managed entirely by local communities (See ____ in this issue).

Main rivers in the area include Wainaganga, Painganga, Wardha, Pench, Kanhan and parts of Tapti. Most of the rivers support high biodiversity and numerous fish species.

Adan is one such tributary of Painganga, which flows for 209 kms through Washim and Yavatmal districts and meets Painganga near the Andhra Pradesh border. Adan is joined by tributaries like Arunavati. The river flows through an agricultural landscape as well as a recently established Blackbuck Sanctuary. 43 fish species have been documented from this river[1], including the endangered Mahseer.

However, most of the Mahseer, tiger prawn and *Anguilla bengalensis* populations have been wiped out upstream of dams in the basin and are now found in downstream tributaries only. The depleting fish species have affected the livelihood of the fishermen drastically and in desperation, poison and electric currents are now being used for fishing, which was never the case earlier.

Fishing in the Adan River Photo: Dr. Nilesh Heda

Initial years In 2007, Nilesh Heda, from the local town Karanja started PhD work with IISc (B) and Amaravati University, documenting fish species & traditional knowledge about fisheries in Adan & nearby rivers.

[1] Notable species include: *Barilius sps, Danio aequipinnatus, Garra mullya, Glossogobius giuris, Glossogobius giuris Gonoproktopterus kolus, Labeo fulungi, Lepidocephalus thermalis, Macrognathus aral, Mastacembelus armatus, Mystus, Nemacheilus, Notopterus notopterus, Ompok bimaculatus, Osteobrama cotio peninsularis, Osteobrama cotio peninsularis Puntius, Salmostoma, Thynnichthys sandkhol, Wallagu attu, Xenentodon cancila etc.*

During his study, he witnessed serious issues which were not only affecting the fish diversity but having far reaching impacts on the entire socio-ecology. One of the main issues was the change in the nature of the river from perennial to seasonal. While part of the blame was on increased siltation due to faulty land use practices and deforestation, a major part of this was due to two dams built on the river.

Sonala Dam is a 15.28 m high dam built near the origin of the river in 1971 and **Adan dam** is a 30 m high dam near Karanja town built in 1977, falling in the middle reaches of the river.

Adan dam changed the traditional cropping pattern of the region from cotton-jowar-bajra to sugarcane, which was not cultivated earlier in the region. It also stopped nearly all the downstream flows of the river and affected about 3000 strong fishing community of Bhois adversely. The Bhois took lead and formed fisheries cooperative with over 450 members.

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It is Samvardhan's stand that like tribals now have a legal right over their forest resources through FRA and PESA, fisher-people should have rights over their river, from which they receive ecosystem goods and services.

Dr. Heda with villagers in Adan

Sugarcane cultivated by the dam waters brought sugar industry with it, which polluted Adan's water considerably. Numerous fish kills were reported and Dr. Heda has been a part of an agitation against the untreated sludge released by the industry in the river. Sugarcane also required less farm laborers than before and affected the economy. Interestingly, the storage capacity of the dam has been decreasing rapidly and the sudden burst of sugarcane fields is now receding. The industry now gets its sugarcane from different areas.

Need to address wider problems Dr. Heda realised that in order to conserve the fish and riverine ecosystem, it is necessary to address a number of interconnected problems in the entire basin. At the same time, in the face of growing unemployment and droughts in the region, he saw the futility of working single-mindedly on conserving some fish species. In the midst of farmer suicides and social unrest, conservation had to be linked with long term as well as immediate short term gains for the community. There was a more urgent need to revive links between the river and its people, restoration and employment.

Using NREGA as an effective tool During the same period (April 2007) NREGA was amended to include all districts of the country. The law highlighted 'work on demand' and stipulated that a minimum of 50% and maximum 100% of all works will be done by the Gram Sabha. This was a perfect opportunity to integrate conservation and employment and initiate a basin-wide effort. However, using NREGA was easier said than done. Uneducated and unemployed people had no idea of NREGA or their right to demand work. Samvardhan team first initiated awareness generation about the law and its use in the community. Despite this, NREGA works were not started in Washim for a long time and Samvardhan had to do an intensive follow up with nearly all officials and write to the Ministry of Rural Development repeatedly.

With a planned ridge to valley approach, Samvardhan spearheaded works on NREGA in more than 75 villages of the Adan and adjoining basins in nearly the entire Washim district. These included watershed works, extensive afforestation and awareness generation about natural resource management. **Till now, more than 5000 villagers have contributed to river and ecosystem restoration through NREGA!** More than 90000 trees have been planted in two villages alone, bunding and watershed works in hills and farms have reduced soil erosion and resultant siltation.

Gram sabhas in Adan and also nearby tributaries have become proactive about planning and implementing works in their villages. Meetings for each Gram Sabha are initiated by Samvardhan team, which also includes fishermen and local farmers and they talk about local resources and problems and chart out a plan for work.

Looking at the invasion of exotic fish species, fish farms with local and carp species have been started.

When asked about the impacts of this work, Dr. Heda says, quoting Rajendra Singh (who has been involved in Samvardhan's work) that river revival is a *"Baaraa saalon ka kaam"* and not a one-night wonder.

However, Samvardhan has been witnessing many indirect impacts of the work like increasing water table and reduced siltation, improved participation in gramsabhas and local planning.

It is too early to see results in terms of river restoration and increased species diversity. However, the path chosen by Samvardhan of social upliftment, awareness generation and *shramadan* has proved to be the 'Rajmarga' for achieving lasting results as demonstrated by Arwari, Ralegan Siddhi and Hiware Bazar. Some good stories are emerging from the tormented Vidarbha.

Samvardhan Samvardhan is working with some villages to protect socially and ecologically important stretches of rivers as community conserved areas.

This will help fish production as well as overall river health and biodiversity. It is Samvardhan's stand that like tribals now have a legal right over their forest resources through FRA and PESA, **fisher-people should have rights over their river, from which they receive ecosystem goods and services.**

This right should be protected from dams, pollution, industries and other interventions in the upstream. They have zeroed down on a number of conservation areas in the river working with villagers to develop a set of rules for managing this area.

There is an urgent need for using new and existing legal tools (like community and conservation reserves under the Wildlife (Protection) Amendment Act of 2002) for protecting important rivers and riverine stretches so that the services provided by rivers are sustained.

Dr. Heda is happy to have changed his focus from a conservationist to a field worker and more. In his words, ***"I don't have to worry about fish conservation now, it will get done automatically!"***

Samvardhan Team: The team of the Samvardhan is as diverse as its work. Founded by Dr. Nilesh Heda in 2007, along with his likeminded friends, Adv. Sumant Bandale, Kaustubh Pandharipande, Adv. Radhika Sone, it now comprises of local college students, fishermen, labourers & village level workers.

(As told to Parineeta Dandekar)

Himachal bans hydropower projects in Tirthan & tributaries

According to a Himachal Pradesh government spokesperson, "No hydropower project will be allowed in future in the tributaries of the Tirthan River. This will help conserving the trout," A decision in this regard was announced by Chief Minister Prem Kumar Dhumal in the state assembly.

In 2004, the government imposed a complete ban on allotting hydro projects in the Tirthan River. "Now the government has included its **tributaries** too under the ban as two hydropower projects working there have a negative impact on the aquatic fauna," the official said.

Interestingly, the Brown and Rainbow trouts which have lead to this protected status are not native to Himachal waters, but exotic species, introduced by the British in 1909 to promote game fishing.

While protecting a biodiversity-rich river and its tributaries is a welcome step, it will help Himalayan ecology considerably if such concern is also shown to native and endangered fish species like the Golden Mahseer and Snow Trout. These fish are found abundantly in Tirthan, as well as other streams and rivers which are being rampantly dammed and destroyed.

However, Fisheries Department has been turning a Nelson's Eye towards destruction of such habitats. As SANDRP had reported, Fisheries Department has notified Chanju Nallah as a 'No Development' stream for in situ conservation of fish. However hydro project proponent blatantly presented before the EAC that Chanju has no fish in it and also showed a certificate to that effect from Fisheries Department.