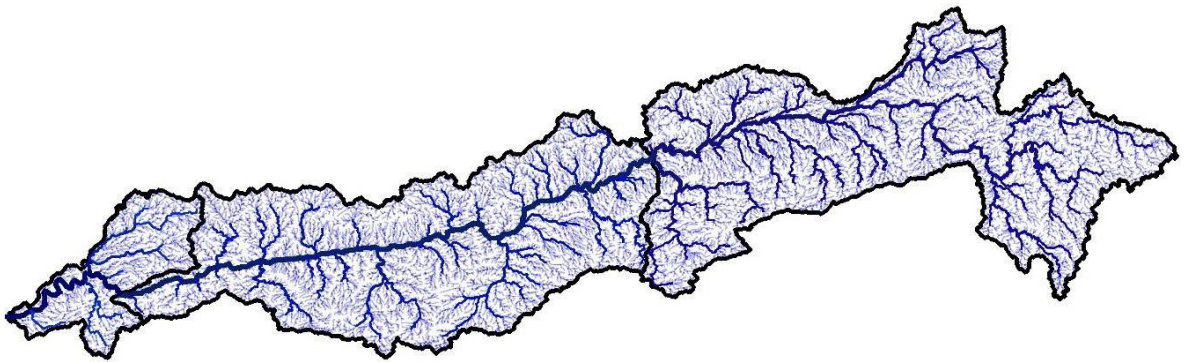




**National River Conservation Directorate**  
Ministry of Jal Shakti, Department of Water  
Resources,  
River Development & Ganga Rejuvenation  
Government of India

# River-People Connect in Narmada River Basin



March 2025



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## **National River Conservation Directorate (NRC)**

The National River Conservation Directorate, functioning under the Department of Water Resources, River Development & Ganga Rejuvenation, and Ministry of Jal Shakti providing financial assistance to the State Government for conservation of rivers under the Centrally Sponsored Schemes of 'National River Conservation Plan (NRCP)'. National River Conservation Plan to the State Governments/ local bodies to set up infrastructure for pollution abatement of rivers in identified polluted river stretches based on proposals received from the State Governments/ local bodies.

[www.nrcd.nic.in](http://www.nrcd.nic.in)

## **Centres for Narmada River Basin Management and Studies (cNarmada)**

The Center for Narmada River Basin Management and Studies (cNarmada) is a Brain Trust dedicated to River Science and River Basin Management. Established in 2024 by IIT Gandhinagar and IIT Indore, under the supervision of cGanga at IIT Kanpur, the center serves as a knowledge wing of the National River Conservation Directorate (NRC). cNarmada is committed to restoring and conserving the Narmada River and its resources through the collation of information and knowledge, research and development, planning, monitoring, education, advocacy, and stakeholder engagement.

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[www.cganga.org](http://www.cganga.org)

## **Acknowledgment**

This report is a comprehensive outcome of the project jointly executed by IIT Gandhinagar (Lead Institute) and IIT Indore (Fellow Institute) under the supervision of cGanga at IIT Kanpur. It was submitted to the National River Conservation Directorate (NRC) in 2024. We gratefully acknowledge the individuals who provided information and photographs for this report.

## **Team Members**

Pranab Kumar Mohapatra, cNarmada, IIT Gandhinagar

Deepak Singhania, cNarmada, IIT Gandhinagar

Vikrant Jain, cNarmada, IIT Gandhinagar

Vimal Mishra, cNarmada, IIT Gandhinagar

Udit Bhatia, cNarmada, IIT Gandhinagar

## **PREFACE**

This report endeavours to capture the multifaceted relationship between the Narmada River (and its tributaries) and the communities that depend on it by analysing how the river influences the lives, livelihoods, and cultural practices of millions across the basin. The document offers a panoramic view of the region's socio-economic, cultural, and environmental dimensions based on case studies, data analyses, and narrative accounts.

Key sections of the report delve into various facets of this relationship, including the river's role in religious practices, cultural continuity, tourism, and sustainable development initiatives. In an era marked by rapid urbanization and environmental degradation, understanding the complexities of river-people interactions is essential for crafting equitable and sustainable policies. The findings presented here offer actionable insights into how local communities can be better integrated into development processes, ensuring that economic growth does not compromise ecological balance or cultural heritage. By detailing both the successes and challenges of current initiatives, the report lays the groundwork for targeted interventions that can align development with environmental conservation, ultimately enhancing the long-term resilience of the Narmada Basin.

We thank the numerous contributors whose expertise has been integral to this report. We thank the organisations and local community members who responded to our questionnaires and outreach efforts, sharing material and personal experiences about their work and the challenges within the Narmada Basin. Their collaboration has helped capture the lived realities of the region's diverse stakeholders.

We hope this report will be a valuable tool for policymakers, researchers, and practitioners. By fostering informed dialogue and guiding collaborative action, we aim to contribute meaningfully to the sustainable and equitable management of the Narmada River Basin. Ultimately, our goal is to ensure that the river and the communities it nourishes can thrive for generations.

Centres for Narmada River Basin Management and Studies (cNarmada)

IIT Gandhinagar

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## **Introduction**

Millions of people across three states – Madhya Pradesh, Gujarat and Maharashtra – depend on Narmada. A large part of it lies in MP, followed by Gujarat and a little part in Maharashtra. It is integral to the lives of many economically, culturally, socially, religiously, and for many other purposes. It also serves as a way of life for those residing on its banks. It serves the majority in the form of agriculture and forestry. The river is also responsible for preserving the biodiversity surrounding the basin including the range of forests and wildlife. It is home to more than 4,000 flora, more than 270 birds, 76 mammals, 50 snakes, 150 butterflies and 118 fish species.

However, the river and the flora and fauna surrounding it is also at the risk of overexploitation and due various claims on this its resource threatens its own sustainability, as the Indian population is increasing. Interestingly, on one hand humans threaten the health and course of the river, on the other hand it will have to be people who will play the role of its sustainability through combining forces and localized efforts in its sustainability.

This report is an attempt to understand the link between the river and the people connected to it either long term reasons like their livelihood, or for short term purposes like tourism. The report first discusses all different ways in which people are connected to the river. It abstracts away from any other life-form that depends on the river, because the focus is on people. The report then shares examples of efforts made by people or organizations in the sustainability of the river and in dealing with various challenges in that process. At the same time the report also shares the examples of organizations in the basin that are working towards improving lives of those connected to the river integrally for life. The report closes with some suggestion for policy-makers on the role that people can play in sustainability of the river.

## **Current Nature of People-River Interactions in Narmada River Basin**

### **Reliance on Narmada for livelihood**

Narmada basin is home to around 20 million people, and a majority of these are in rural areas. About 9 million working people rely on the agricultural and non-agricultural sector for their livelihood, although the former is the dominant source of income. The following districts are the most populous ones and potentially a source of river exploitation: Jabalpur stands out as

the most populous, housing 2.4 million residents; Khargone has 1.8 million people and is also among the most densely populated districts; Bharuch district has the urban population of 4,46,683 while Vadodara district has the rural population 11,07,661. These also happen to be the hubs of major economic activities and with bustling urban centres.

About 58 percent of the total area is used for agricultural purposes, which is dependent extensively on both surface and groundwater for irrigation purposes. The following three types of crops are sown across different parts of the basin: 1) the kharif crop, 2) the rabi and 3) the summer/ Zaid crop. “The farmers in the Narmada basin mostly cultivate small plots of land on terrain and soils that are unsuitable for flood irrigation and they have traditionally been driven by the desire to produce for subsistence rather than for profit” (Banerjee n.d.).

**Table 1: Number employed by sector of employment (in Lakhs)**

| <b>Category/ Year</b>                                                 | <b>1990</b> | <b>1998</b> | <b>2005</b> | <b>2013</b> |
|-----------------------------------------------------------------------|-------------|-------------|-------------|-------------|
| <i>Panel A: Non-Agricultural Activities (Source: Economic Survey)</i> |             |             |             |             |
| Total Employment (non-agricultural)                                   | 5.67        | 8.44        | 9.5         | 10.3        |
| Manufacturing Employment                                              | 2.16        | 2.39        | 2.67        | 2.52        |
| Service Employment                                                    | 3.22        | 5.86        | 6.61        | 7.40        |
| <i>Panel B: Agricultural Activities (Source: Population Census)</i>   |             |             |             |             |
| <b>Category/ Year</b>                                                 | <b>1991</b> | <b>2001</b> | <b>2011</b> |             |
| Number of Cultivators                                                 | 25.75       | 26.12       | 24.42       |             |
| Number of Agricultural Labourers                                      | 15.46       | 14.80       | 24.46       |             |
| Population                                                            | 139.82      | 171.24      | 204.99      |             |

Table 1 shows the change in the number of people employed in different sectors over time. While total employment in non-agricultural sector has doubled between 1990 and 2013, 5.67 lakhs to 10.3 lakhs, the major change has happened in the services sector and not in the manufacturing sector. On the other hand, in the agricultural sector, while the agricultural labourers have increased from 15.46 lakhs to 24.46 lakhs between 1991 and 2011, the number of cultivators has remained the same at around 25 lakhs.

The basin has not seen major industrial development except in centers like Jabalpur and Bharuch. Jabalpur has an ordnance factory of the Defence Ministry involved in manufacturing of arms, ammunition and vehicles for the army. There are also timber-based industries such as

sawmills and furniture establishments; factories producing telephone parts, electrical goods and glassware, and also some major bidi manufacturing units. In Bharuch, the major industrial unit is a chemical and fertiliser plant of the Gujarat Narmada Valley Fertilizers Company. It also has other chemical and petrochemical plants, in addition to a unit of the Oil and Natural Gas Corporation (ONGC) producing crude oil. There is also a coal based thermal power plant in Sarni in Betul district of Madhya Pradesh and a Security Paper Mill of the Finance Ministry in Hoshangabad and some textile mills in Khargone and Khandwa. These districts also have some sugar mills.

In addition to agriculture and industry, people on the basin also rely on the river for drinking water. The major sources of drinking water include wells, tube wells and hand pumps accounting to 38519, 9572 and 43032 respectively (Banerjee n.d.).

### **Narmada river for Religious purposes<sup>1</sup>**

Narmada river is considered highly sacred for people living around the banks. The river has multiple sacred roles, according to Kala (2001): “As a deity, it is subject to, and giver of, 'darshan'. As a temple, it is circumambulated. As a tirtha, it is a sacred crossing”. The devotees religiously connected to the river can be classified into two categories. First category includes people from various identities which include wealthy patidar cash crop farms of Nimad region, and adivasi subsistence farmers such as bhilala, and pawara (Kala 2001). These people have been residing on its banks for centuries. The other category includes all the devotees who hail from outside the basin as well as within the basin.

Kanungo et al. (2024) give interesting accounts of physical properties of gods and goddesses connected to the river by providing evidence for their (im)movability. According to their book: “Like with many major tributaries in South Asia, people have an economic, spiritual, and historical attachment to the river, and hundreds of historical monuments are scattered around its banks. It is also the only river in South Asia of which pilgrims conduct a circumambulation in its entirety, popularly known as the Narmada parikrama.” They also discuss that various gods like, *Dablya*, *Kuvaju*, *Bad Mal* and *Pavya*, may be movable but at the same time they are inherently tied to the geographical locations of the Narmada basin in form of mountains,

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<sup>1</sup> This section borrows from <https://indiawris.gov.in/downloads/Narmada%20Basin.pdf> and <https://sites.iitgn.ac.in/cnarmada/assets/files/Report.pdf>

specific villages, etc.

The religious value of the river is not just limited to the communities around it. Its sacred nature is quite evident in the following statement by Paranjypte (1991): “The Matsya Purana says that all sins are washed away by bathing thrice in the Saraswati, seven times in the Yamuna, once in the Ganga, but the mere sight of the Narmada is enough to absolve one of all sins.” Every year, lakhs of individuals carry out *Naramda parikrama* which is a 2600 kilometer journey that starts from Amarkantak in M.P. and goes till Miti Talai in Gujarat and then back again through the Northern bank. According to a report by Madhya Pradesh’s tourism ministry, the pilgrimages Amarkantak, which is the starting point of Narmada, and Omkareshwar, which is situated on an island of Narmada river, each attract around 3 million pilgrims every year (*Tourism: An Overview-Tourism Sector* n.d.).

The river faces dual challenges, just like rivers like Ganda and Yamuna. On one hand, people hold deep sacred regard for the river and view it as a form of God which cannot be ignored as it carries high emotional and spiritual value and may tie to people’s well-being and peace. On the other hand, various spots along the river attract large number of pilgrims and tourists every year which pose a threat to long term sustainability and health of the river and the associated flora and fauna.



Sidhdheshwar Mahadev temple



Neelkanth Mahadev temple



Nilkanthdham Poicha



Shoolpaneshwar temple



Omkareshwar



Narmada Udgam Temple, Amarkantak

**Figure 1:** Religious sites in the Narmada River Basin

### **Narmada river for Cultural practices**

The people living for ages around Narmada don't just see it as a religious or an economic entity, but it has also become a way of life for them. They speak a different language, such as Adivasis speak "Bhili", their way of life is contextually connected to the river in the way they manage their day-to-day lives, and their leisure activities also are contextualized in the geographical features of the river.

According to an Adivasi leader interviewed by Oza (2022: 153-54): "In my childhood we bathed and frolicked in the Narmada everyday ... we used to climb on the huge black rocks on her banks and jump into the stream. ... In our house we had cows and bullocks and goats, and we used to take them to the forest for grazing. All day we would climb trees, jump about, play hide and seek... . Near our village there are high mountains which are home to a variety of

trees, birds, and animals with whom we shared our lives.”

The role of language also plays an important role according to Choksi and Rathwa (2024). They point out that “The practice of identifying language with community and region has continued to the present day in various works that have documented varieties of Bhili”. The commonality of languages has implications on various aspects of life, for instance, marriage practices, as “those who perceive their languages to be similar being able to enter into marital alliances and those speaking languages perceived to be different are prohibited from doing so.” Languages can also have implications for the way communities mingle with other groups.

People also rely on various materials that come from the basin in their day-to-day practices. For instance, they use a specific kind of millstone to grind their grains which has a specific taste and is supposedly distinct from other grains outside the basin (Kanungo et al). The varied nature of Narmada in cultural practices is also reflected in an interview from Kala (2001): “Narmada is life for us. Our drinking water is from the river. The water for our crops comes from the river, and when we are ill we do puja by the river to get well.”



**Figure 2:** *Millstone, brought from the villages near Narmada river, used by a villager in their resettlement house. Source: Kanungo et al.*

Finally, a blog titled “Cultural Geographies of River Narmada”<sup>2</sup> gives interesting accounts of the cultural connection between people and Narmada river. The grandmother of the author of the blog recalls that: *“My mornings would begin by taking a quick dip in the River Narmada. After school, my friend Rajkumari and I would race to Narmada’s edge and swim across the river. She lived in a palace across the Narmada and we would spend our afternoons playing there. I would go back to Narmada in the evenings with my mother to offer prayers and perform aartis.”*

### **Narmada river for Tourism/Leisure<sup>3</sup>**

There are about 27 major locations along the Narmada basin where people engage with the river for tourism purposes. Some of the popular locations that coincide with the river include Amarkantak, Bargi Dam, Bheda Ghat, Kapildhara Waterfall, Omkareshwar temple, Sardar Sarovar Dam, Statue of Unity, Tinchha waterfall, and Veda Narmada Sangam, among various others. Among various wildlife sanctuaries that lie on the basin, the one that is closest to the river is Sardarpur wildlife sanctuary in Dhar district of Madhya Pradesh.<sup>4</sup>

The dependence of tourists on Narmada river is quite strong. According to a report by the Government of MP, the total number of domestic and international tourists in the state was as high as 7.8 crores in 2017. While international tourists have remained stable around 3.5 lakhs over a decade from 2008-2017, domestic tourists have increased by about four times during this period. At the Statue of Unity near Sardar Sarovar dam, according to the [Ministry of Tourism](#), the average monthly tourists between 2018 and 2020 was a whopping 2.6 lakhs.

MP’s and Gujarat’s rising tourism reliance due to popularization of hotspots around the Narmada river, such as, Bhedaghat and Omkareshwar in Madhya Pradesh, and Statue of Unity and Sardar Sarovar Dam in Gujarat, expected growth of tourists in the future puts the river health at risk. It is also expected that more tourists will be attracted to the state due it having multiple UNESCO heritage sites such as Bhimbhetka world heritage and Buddhist monument at Sanchi, and the possibility of Bheda Ghat which is already in UNESCO’s tentative list. Furthermore, Madhya Pradesh tourism department is also increasing efforts to promote its

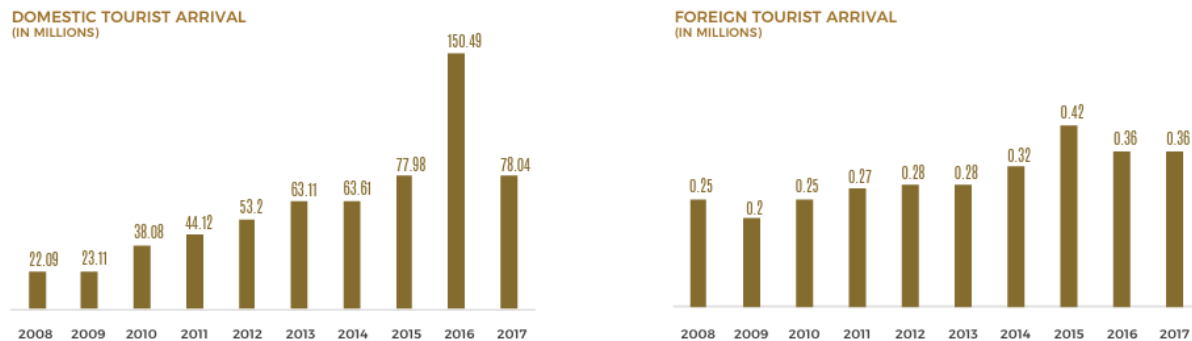
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<sup>2</sup> <https://veditum.org/2020/06/17/cultural-geographies-of-river-narmada-at-mandla/>

<sup>3</sup> This section borrows from <https://indiawris.gov.in/downloads/Narmada%20Basin.pdf> and <https://sites.iitgn.ac.in/cnarmada/assets/files/Report.pdf>

<sup>4</sup> See [https://indiawris.gov.in/wiki/doku.php?id=water\\_tourism\\_sites\\_in\\_madhya\\_pradesh](https://indiawris.gov.in/wiki/doku.php?id=water_tourism_sites_in_madhya_pradesh), for more information on tourist sites.

tourism hotspots with the expectation of contribution to its GDP, as is also true in the state's efforts to attract investors ([Link](#)).<sup>5</sup>



**Figure 3:** Tourist arrival trends in Madhya Pradesh. Source: [https://invest.mp.gov.in/wp-content/uploads/2022/03/MPTourism\\_PPT-2.pdf](https://invest.mp.gov.in/wp-content/uploads/2022/03/MPTourism_PPT-2.pdf)



**Figure 4:** Tourists in Bhedaghat ([Source](#))

### River-People (Dis)connects

River resource is limited and the claims of different stakeholders are large if not unlimited. This may create trade-offs that could lead to an imbalance of decisions that may favour some and not the others, or even go to the extent of harming others. In that light, understanding the river-people connect along the Narmada river also requires the understanding of the disconnect that may be created for some while resource sharing.

One of the contested issues along the river has been the displacement of communities close to the river due to submergence primarily driven by the dams created in the basin. The following

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<sup>5</sup>

table provides the information on the submergence.

| State             | Villages<br>Fully<br>Submerged | Villages<br>Partially<br>Submerged | Total<br>Villages<br>Affected | Families<br>Affected | Population<br>Affected | Avg. Area of<br>Submergence<br>per Village<br>(ha) |
|-------------------|--------------------------------|------------------------------------|-------------------------------|----------------------|------------------------|----------------------------------------------------|
| Gujarat           | 3                              | 16                                 | 19                            | 4769                 | 19076                  | 374                                                |
| Maharashtra       | 0                              | 34                                 | 34                            | 4301                 | 17412                  | 259                                                |
| Madhya<br>Pradesh | 1                              | 192                                | 193                           | 37761                | 163481                 | 138                                                |

**Table 1:** Source: Sardar Sarovar Narmada Nigam Limited, Government of Gujarat (2015) and Sardar Sarovar Punravorsat Agency (2015)

The river holds emotional value for the resettled communities as reflected in the following statement: “All the small temples by the side of the river have been covered by the submergence. In Manibeli, the important temple of Shoolpaneshwar was submerged. Many festivals were held there, centuries old, and people from all over would go there for festivals. The government has built another temple near the site, but it has no meaning for the people - you can't replace centuries of faith” (Kala 2001).

Sources like Oral History of Narmada (<https://oralhistorynarmada.in/life-by-the-narmada/>) give interesting accounts of such disconnect between people and the river. According to an account of a community member, such a disconnect can have economic implications at least in the short term: “...The wood sellers used to go to the Nisarpur market to sell wood. They would also pack and tie fodder in bundles and take them there to be sold. We used to ferry them across to the market and ferry them back, along with the supplies that they would buy from the market. We used to row them across the Narmada River and take them to the market. They used to bring anjan fodder from the mountains. They used to carry wood, charcoal – everything to the market ...Boats plied from Rajghat too. At Rajghat, jeeps, motorcycles, cars were all ferried by boats across the river. Earlier, there was no bridge at

Rajghat. So, the boatmen at Rajghat used to earn a good income, the boats were rowed throughout the day.” (*Chagan (bhai) Kevat – Oral History Narmada*. n.d.).

At the same time, through a representative study that compares those who are resettled to those who are living in semi-evacuated villages and in villages within a 15–20 kilometre radius of the project-affected area, Aiyar and Kaushal (2018) conclude that: “1. it is possible to implement rehabilitation packages that leave the oustees substantially better off in material terms. 2. the study disproves the claim of activists (and the Morse Commission report) that tribals have such a different ethos and lifestyle that they will be devastated and impoverished if shifted to mainstream villages. 3. Third, the trauma of displacement can be so high for many people that despite being much better off in material terms, 54% of the oustees would rather return to the forest if given their original land and buildings. So, the planners must seek not just to maximise

irrigation and power generation but to minimise displacement. 4. any blanket statement about the ethos and attitudes of tribals is unwarranted---they exhibit a wide spectrum of views on changes after resettlement, and whether they would prefer the forest or the mainstream. While the thesis that tribals should be protected from modernization looks weak, the willingness of over half the resettled villagers to return to their old forest habitat, despite being materially better off, shows that forced resettlement places considerable stress on oustees, so great care is needed to design rehabilitation packages that alleviate the economic and social stress.”

## **Efforts by NGOs, local governments, or other groups/organizations in influencing river-people connect**

### **Environmental conservation**

#### **MAJLIS: Interventions for eco-restoration<sup>6</sup>**

Majlis, which is short for Mahila Jagat Lihaz Samiti, is a group of Dalit and Adivasi women in Western Madhya Pradesh and is involved in conservation of the environment while also dealing with the problems of women empowerment, such as, denied right to inheritance of property. Their philosophy is that women are the primary caretakers of the environment and hence they need to be empowered to ensure its sustainability. Empowerment of women goes hand in hand

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<sup>6</sup> Based on the information share by an employee of MAJLIS organization.

with conservation of the environment and that is why sustainable agriculture, forest, soil and water conservation and renewable energy are also focus areas of MAJLIS. The aim of MAJLIS is “Establishment of a gender just, equitable and sustainable society through the collective action of women and men in rights-based campaigns and development work with special focus on the well-being of Adivasi and Dalit Communities.”

One example they proudly share in their website is of Raijabai of Kakrana village on the banks of the Narmada River. The people of that village had begun protecting their forests but people of nearby villages would come at night to cut the trees. Thus, it was necessary to have someone police the forests at night also. Then Raijabai made the brave decision to stay in the forest itself and she and her husband constructed a hut there and went to live in it with their children. Whenever they saw somebody trying to cut the trees at night, they would raise the alarm and then all the people from the village would come rushing. Even then on a few occasions the timber thieves attacked and injured them. Nevertheless, undaunted Raija has gone on living in the forest which has now become a resplendent one.

Under their Natural Resource Management efforts, as stated on their website, MAJLIS has organised villagers into small groups of ten to twelve farmers each who then pool their labour and cooperate with each other to perform their agricultural operations together and also undertake soil and water conservation activities. This is a revival of a traditional labour pooling system called *Dhas*. The intensive soil and water conservation work and the forest conservation over 25000 hectares across seventy villages, have together ensured that both natural and artificial recharge in the villages of the organisation have increased considerably and so the streams are now flowing perennially throughout the year. This enhanced water availability combined with the availability of electricity and diesel for pumps has meant that there is considerable irrigation in these villages whereas earlier there was none. The soil and water conservation work has also ensured the greater availability of soil moisture and so double cropping has become possible even without irrigation.

A study by the founder of MAJLIS also shows how their partner Khedut Mazdoor Chetna Sangath (KMCS) engaged in forest conservation efforts in the basin. They began with ensuring access to the encroached farms of the tribals in the reserved forest and as a solution to this problem very early on it was decided to protect the remaining forest area and prevent it from degradation. This forest protection has considerably increased the availability of fodder,

firewood and non-timber forest produce in the study watershed and this has especially benefited the women and children who are the main collectors of forest products. Greater fodder availability has facilitated goat and buffalo rearing and so increased the supplementary incomes from animal husbandry which provides an insurance against livelihood shocks to the tribal households. A survey done in the study villages by the youth has shown that there are as many as 63 species of trees, 8 varieties of vegetables, 7 varieties of grasses, 10 varieties of fruits and 29 varieties of herbs. The landscape in the control village is barren by contrast and there the forest product availability is low.

Finally, they are also making efforts to push local communities to adopt renewable energy. Solar electricity was first installed in the Rani Kajal Jeevan Shala school in Kakrana along with a solar hot water system. However, they are also critical of such initiatives as the economics of installing solar panels have still not been quite effective and affordable. They explain how the benefits do not quite outweigh the costs. Customization is another challenge for which it is hard to find the right kind of suppliers.

#### **Narmada Landscape Restoration Project: Payment for Ecosystem Services (PES)**

The Narmada Landscape Restoration Project (NRLP) is being funded by the US Agency For International Development (USAID) and the National Thermal Power Corporation (NTPC), over 2021-2025, and is being implemented by Global Green Growth Institute (GGGI), a Seoul-based inter-govern-mental and international organisation, in partnership with the Indian Institute of Forest Management, Bhopal. According to the project manager: “We are developing a series of community initiatives to increase water availability and quality in the Narmada. Once achieved, this model will provide evidence to push for payment for ecosystem services (PES) under which cities will pay the people undertaking the conservation projects”.

Some of the initiatives under NRLP can be classified as follows, as per their newsletter (Global Green Growth Institute n.d.):

- Agriculture: To promote sustainable agriculture among local farmers, the project distributed essential resources, including 100 plastic drums, 200 pheromone traps, 175 Decomposers, and 1060 Yellow and Blue Sticky Insect Traps. They recruited 230 farmers to participate in sustainable agriculture demonstrations. They also hold regular Farmer Interest Groups (FIG) meetings to provide a platform for farmers practicing sustainable organic agriculture. These meetings serve as channels for

discussions, learning sessions, and the implementation of sustainable practices tailored to the specific needs and knowledge requirements of the farmers. They are also creating institutions like Farmer Producer Organization (FPO), carrying out organic certification audits, and creating Bio-Resource Centers.

- Forestry: Under NLRP Joint Forest Management Committees (JFMC) have been created to enhance capacities locally for forest conservation efforts. This also includes riparian buffer plantation which is a strategic land management and ecological restoration approach. The objective here is to plant and maintain vegetation along the shores of rivers, streams, lakes, and other water bodies. Various other initiatives include promotion of local economic activities such as making of dona-pattal (cups of leaves) and incense sticks. NLRP also involves activities related to land restoration.

- Watershed: NLRP supports Natural Resource Management (NRM) initiatives that include creating water management infrastructures such as farm ponds, stop dams, etc. It also supports testing water quality and carrying out groundwater assessments.

As per an article published in [DowntoEarth](#), there are some signs of improvements in the ecology of the region. The focus of NLRP is on Nani and Vansavali, two tributaries of the Narmada in Khargone district, from where water for Indore city is lifted. They have selected 16 micro watersheds for intervention, of which eight are in the catchment of Nani and six are in that of Vansavali. According to the project manager of GGGI, they are implementing sustainable landscape practices in an area of 12,825.53 hectares (ha) on north and south banks of Narmada's catchment. The project manager also stated as per the article that: "Through the project, we aim for a 20 per cent increase in the quantity of water and a 25 per cent reduction in runoff pollution in both Nani and Vansavali. We have a detailed monitoring strategy and plan for measuring the change in water quality and quantity, which includes sampling from different locations, both surface water and groundwater."

Some of the stories from the farmers, according to the DowntoEarth article, are as follows:

- "Earlier, I had to wait until July for the monsoon to sow cotton. But now, I can sow it in May and plant wheat in the rabi season"
- "Our dug well used to go dry by February, but since the check dams were constructed, it has water even in April-May. Now, we can cultivate both cotton and wheat, and our cattle have water too"

- “Last December, residents were taken to Seoni to show them how bangles and varnish are made out of lac. A kg of lac sells for anything up to Rs 400 and farmers can earn from it”  
A challenge that is expected in initiatives like this is that it remains to be seen if the municipal corporation or the people of Indore will agree to pay for the ecosystem services of Narmada. For instance, increasing any kind of payment through the public system may end up being a political issue. According to Indore Smart City development officer NLRP “is developing a proof of concept for impact of sustainable landscape measures of water quality and quantity, which then will help it develop ‘Payment for Ecosystem model’”.

#### [Environmental Conservation efforts by Samaj Pragati Sahayog<sup>7</sup>](#)

SPS is actively involved in the Narmada River basin and its tributaries through initiatives focused on environmental conservation, and participating with tribal communities, in Dewas and Khargone districts, Madhya Pradesh. Rainfed agriculture is the primary livelihood for small and marginal tribal communities in Narmada River Basin. The major challenges in this region include limited water availability for agriculture, increasing soil erosion affecting soil moisture retention, low water use efficiency in canal irrigation systems, rising dependence on chemical inputs, and escalating farming costs. Additionally, low participation of women in development activities remains a critical concern. Through their sustainable development approaches, they aim to address these challenges by promoting community-led solutions that enhance water conservation, improve soil health, reduce input costs, and ensure greater participation of tribal women in livelihood and natural resource management initiatives.

Their Sustainable Watershed Development Programme employs a ridge-to-valley approach to improve water quantity and quality, control soil erosion, and restore degraded landscapes by constructing water harvesting structures like stop dams, check dams, and farm ponds, along with soil and moisture conservation measures such as farm bunding, loose bolder structures, gabion etc. A key focus of their interventions is ensuring active participation of women, particularly in sustainable agriculture, irrigation management, and watershed conservation activities.

Over the past 30 years, SPS has implemented several projects like most recently Project Parivartan (HDFC), NABARD’s Watershed Development Fund, the Narmada Landscape Restoration Project, and the Harit Bharat Fund Project, Participatory Irrigation Management

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<sup>7</sup> Based on the information share by an employee of Samaj Pragati Sahayog (SPS) organization

(PIM) approach which has saved 243.75 million litres of water, improved irrigation efficiency and reducing dependence on groundwater. By working with farming communities, tribal populations, and over 4,000 women farmers, they promote non-pesticide management (NPM), and cost-effective, sustainable agricultural practices that reduce chemical runoff and improve soil and river health. Through CSR and government collaborations, SPS ensures ecological restoration, water security, and livelihood resilience, strengthening the long-term sustainability of the Narmada basin while empowering women as key stakeholders in natural resource management.

#### [Brackish Water Research Centre \(BWRC\)](#)

BWRC works towards conservation of environment, ecology, and livelihood of coastal communities like fishermen, pastorals, and farmers via advocating implementation of green laws and conservation laws. They help with assessments of Environmental Impact Assessments and Environmental Clearance procedures in public consultation. They have also filed cases for the protection of health of people and industrial pollution abatement, and have raised technical issues of pollution in the industrial estates and potential effects on the environment.

On the Narmada river, they have worked for the conservation of brackish water ecology. Their work involves minimisation of industrial pollution in the mouth of estuary and raising concern over the CETPs/FETPs non complying norms and disposal of the effluents into the sea and marine areas of Narmada River. Furthermore, they have raised issues of oil spills in the river, the Sardar Sarovar Dam on the delta and the disappearance of native grass and loss of the southern river portion. They have actively raised issues of heavy siltation in the estuary due to decreased flow in the river, have raised concern about dam mismanagement and man-made floods, impacts on estuary due to insufficient e-flow release from Sardar Sarovar Dam, erosion issues of left bank of River Narmada, oil spill issues and effluent disposal through subsea pipeline in both side of Narmada Delta. Other than this, they have worked on Hilsa Conservation in Narmada Estuary.

#### [Datla river rejuvenation effort, by Jai Bharat Shiksha Kendra \(JBSK\)<sup>8</sup>](#)

Datla river is a major river of Hiran River along Narmada. JBSK went to about 12 village panchayats along Datla river to understand their challenged. They carried out the following activities in 2020: meetings with villagers, training programs of various committee, Datla River rejuvenation procession, and Datla River Mahotsav program. In their various drives, such as

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<sup>8</sup> Based on the information share by an employee of JBSK organization

through processions, they created biodiversity committees. To revive the endangered species along with biodiversity conservation, they developed a garden in two acres of land in a village. To control and conserve the river water at the Gram Sabha level, they formed Gram Saksha Samiti formed in every village with government protection. Through their programs and events, they called experts for river conservation and discussed problems that technicians face and solutions for those problems. They also discussed how the work of river conservation can be done in collaboration with the Panchayat.

The challenges listed out were: Unregulated use of river water by two or four people; Unregulated extraction of sand; due to occupation of grazing and public land, limited fodder for animals; Lack of plans for forest, farm, field, village water to stop the waste water; Limitations in achieving government schemes like well, orchard, farm pond, Nandan Van, goat rearing, vegetable production.

### **Overall community development and initiatives**

#### **MAJLIS**

MAJLIS is also involved in various community development projects. Their strategies as stated on their website involve:

- Problem analysis workshops in which people participate in open discussions to pinpoint the problems they face and the ways in which they can be overcome through cooperation and mobilisation.
- Legal and rights training workshops in which people are taught the basics of the liberal democratic constitutional framework of governance that prevails in the country including its scope and limitations. Special emphasis is laid on the enabling provisions that have been made for the benefit of Adivasis and Dalits in the Indian Constitution.
- Collective Action for rights through public demonstrations, sit-ins and legal and media advocacy.
- Revival of traditional labour and resource pooling customs.
- Special women's meetings to get them involved in resource conservation work, public demonstrations, tackling their reproductive health problems and engaging with men, society and the state to reduce patriarchy.
- Cultural Rejuvenation programmes based on the nature friendly ethic of the Adivasis.
- Advocacy to change the laws and rules in favour of the Adivasis and Dalits.

The interventions of MAJLIS for overall development can be classified as follows:

- **Education:** They have identified the problems of schooling for children belonging to Bhil Adivasi groups as syllabi, teaching methods and teacher time. So, they worked with Khedut Mazdoor Chetna Sangath (KMCS) to develop texts in Bhili and Bhilali for teaching literacy and numeracy and also local geography and history, and also started a residential school. One such school, Rani Kajal Jeevan Shala, has been set up in the village Kakrana on the banks of the Narmada River. They also allow parents to pay in cash and kind for the education of their children. Their efforts also involve adopting syllabus and teaching methods that would take care of both the needs of inculcating a critical attitude towards modern development in the children as well as providing them with the skills to make it good in the modern sector.
- **Gender:** They have worked with women to utilize the opportunity of MGNREGS in improving local agricultural conditions. One of their participants shares that “The biggest advantage for us is that men have now got some work to occupy themselves and keep them from fighting and looting each other. Only last year there was a murderous fight between two groups in our village and many men got seriously injured and landed up in jail. Now they are all working together happily on the same earthen dam.” Initially, local officials like sarpanches and panchayat secretaries actively dissuade people from making applications for work schemes. Recalls Jashmabai of Darkali, “The local sarpanch, Ugarsingh, refused to accept our application for work, as did the panchayat secretary, Chandarsingh. Then we went, along with Retli-bai, to the local office to file our application there.”
- **Cultural Rejuvenation:** They have actively engaged with KMCS for several decades in rejuvenating the traditional richness of the culture of the Bheels and have launched an [internet radio](#) and [video channel](#) called Bheel Voice in association with the Arizona State University of the United States of America. The KMCS has motivated many Adivasi mass organisations of the region to initiate the celebration of the anniversaries of adivasi martyrs and helped in publishing many works in Hindi on Adivasi history and culture.



- **Sustainable Agriculture:** The organization has also made efforts to customise the Rabi sowing to suit this lesser water availability. They are also carrying out campaigns for the revival of the traditional seeds of the Adivasis. They are implementing a pilot to promote sustainable agriculture and tackle the serious problems of water scarcity, malnourishment, illness due to pesticide and chemical fertiliser infested crops, soil, water and air and the looming crisis of climate change.

### Narmada Samagra

According to their website,<sup>9</sup> Narmada Samagra engages in various activities across the Narmada basin. These include:

- **Awareness Campaign:** They conduct these campaigns with the objective of promoting water conservation, sustainable farming, and waste management. These are carried out through Gram Chaupals, cleanups, plantations, workshops, and cultural events, engaging communities, schools, NGOs, and local bodies. These campaigns are carried out across the basin from Amarkantak to Bharuch.
- **Cleaning of Embankments:** Narmada Samagra calls this activity as Ghats Safai and the objective is to preserve Narmada ghats, or banks. For this, they carry out waste removal, community participation, and awareness campaigns.
- **Promoting green initiatives:** Under the banner of “Haryali Chunri: A Green Initiative by Narmada Samagra” they try to restore forests and biodiversity along the Narmada through native tree planting, uniting communities to create thriving ecosystems and hope for a greener future.
- **Chemical Free/Natural Farming:** Narmada Samagra promotes sustainable agriculture and Narmada conservation through natural farming, soil fertility improvement, water conservation, farmer training, and eco-friendly practices, supporting livelihoods and ecological balance.
- **Assisting religious activities:** Narmada Samagra supports and assists Narmada Parikramawasis by providing shelter, clean water, food, guidance books, and raising awareness about the river’s cultural and environmental significance, ensuring a safe and enriching journey.
- **River Ambulance:** This is a unique initiative launched in the year 2013 for people living in Narmada river’s submergence area. It delivers essential healthcare services to tribal and remote communities across 30 stops in the Sardar Sarovar backwaters of

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<sup>9</sup> *Training & Workshops – Narmada Samagra* (n.d.).

Madhya Pradesh. Supported through CSR initiatives, it spans over 200 km, providing treatment for common ailments, maternal care, and health awareness to 40-50 beneficiaries daily.

- **Community Radio:** “Radio Rewa,” Narmada Samagra’s Community Radio Station in Jabalpur, focuses on river conservation, indigenous practices, biodiversity, and sustainable development around the Narmada River. It features programs on the environment, natural farming, and local culture while fostering community engagement, supporting local artists, and promoting regional languages.
- **Preserving Bio Diversity - ‘Seed Bank’:** In 2019, Narmada Samagra, with support from the MP State Biodiversity Board, established seed banks to preserve local and indigenous seeds. These initiatives aim to document seed names, uses, and preservation techniques. Additionally, Biodiversity Management Committees were formed in nearly 50 villages of Sondwa Tehsil to support these efforts.

#### **Inclusive approach of Samaj Pragati Sahayog**

SPS’s sustainable development program is deeply rooted in inclusive community participation, engaging women, small and marginal farmers, tribal communities, and landless laborers. A key pillar of their approach is the formation and empowerment of community institutions such as Water User Groups, Farmer Interest Groups, Self-Help Groups, and Joint Forest Management Committees. Among these, women-centric community institutions are their top priority, as they have been instrumental in ensuring the success of their work in the Narmada Basin. They focus on strengthening these institutions through skill development initiatives, leadership training, and fostering self-reliance. By actively involving women in decision-making and resource management, they not only enhance their economic and social empowerment but also ensure more sustainable and community-driven solutions. Creating a strong link between communities and environmental conservation remains at the core of their efforts, helping to build resilience and secure livelihoods. A major objective of their interventions is transitioning from grant-based support to self-sustaining models, ensuring long-term impact. To achieve this, they prioritize community awareness and participation in institutional frameworks. By fostering collective responsibility and participatory decision-making, they empower communities to take ownership of development initiatives, leading to lasting social and environmental transformation.

#### **BWRC**

BWRC has helped the local fishing community for protection of their fishing grounds, fishing

places and breeding ground. They have also helped farmers in the floods by raising the issue and provided legal and technical help in getting the relief from Govt. They have supported pastorals and fishermen in protection of grazing land and fishing creeks in the intertidal zone and CRZ areas of Aaliyabet region which resulted in cancellation of allotment of 28 square kilometers area for salt pans.

### **Recommendation and Conclusions**

There are various aspects that the policy stakeholders could incorporate while managing the river-people connect. On one hand, local communities depend on the river so much that they are an integral part of it. On the other hand, there are people from outside of the basin that may in the future end up being a burden for sustaining the river. We also provide some recommendations from our discussions with NGOs in the region.

1. People's *dependence* on the river: As laid out in the report, local communities depend on the river for multiple reasons. These involve economic, religious, and most importantly - cultural. How can the policy ensure that their lives remain intact as and when the need for certain kinds of development arise that may not support those communities? In answering that, the role of those very communities and as importantly the local organizations become important. It may be difficult to weigh the cost and benefits, but involving the local organizations while carrying out certain kinds of development can help support the local communities and may tamper, if not alleviate, the concerns they may have around the planned developments.
2. People's *burden* on the river: As much as communities depend on Narmada for their day-to-day livelihoods, there are prospective threats to the river from increased tourism and also certain kinds of economic activities that may involve non-sustainable use of lands around the river. These kinds of future threats are real and preparations of these threats in the current hotspots would be called for in advance.
3. Involving communities through Water User Groups (WUGs): To improve the effectiveness and sustainability of future interventions, several critical areas must be addressed. Working in forested regions requires government approval, which involves a lengthy and complex process that often leads to delays or the failure of initiatives. Simplifying these procedures and fostering proactive collaboration with the forest department should be a priority. Future projects should adopt an integrated watershed-livelihood approach to ensure that water conservation efforts directly benefit farming and income generation. Strengthening community-led water governance by formalizing

Water User Groups (WUGs), linking them with local governance structures, and securing financial support for long-term maintenance will further enhance sustainability. Additionally, incorporating regular water quality monitoring and sharing the results with the community will help assess the effectiveness of interventions.

4. Expanding organic and sustainable farming practices requires addressing initial productivity losses through yield support mechanisms. Market access can be improved by promoting community-led organic certification, establishing direct farmer-consumer linkages, and fostering partnerships with private-sector buyers. Strengthening rural livelihoods involves diversifying income sources through activities such as Non-Timber Forest Products (NTFP) and livestock-based enterprises, while also improving market access and enhancing collective processing facilities. Special emphasis should be placed on women-centered enterprise development by connecting Self-Help Groups (SHGs) with microfinance institutions to scale up local enterprises, such as organic food processing units. This approach will promote economic empowerment, ensure sustainable livelihoods, and build greater community resilience.

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